NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL

TELANGANA – 506004



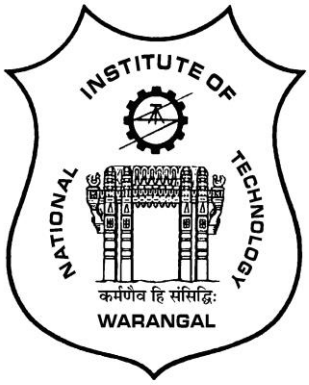
ANNUAL REPORT & ANNUAL ACCOUNTS

2020 - 2021

INSTITUTE OF NATIONAL TECHNOLOGY
कर्मण्येव हि संसिद्धिः
WARANGAL

ANNUAL REPORT & ANNUAL ACCOUNTS

2020 - 2021



NATIONAL INSTITUTE OF TECHNOLOGY

WARANGAL - 506 004

TELANGANA

NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL

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Director, N.I.T, Warangal.



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(From 01.05.2021)



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Warangal
(Up to 04.08.2020)



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Dr. K. Ramesh
Associate Professor, N.I.T.,
Warangal
(From 05.08.2020)

Foreword



Prof N V Ramana Rao, Director, NIT Warangal

National Institute of Technology, Warangal is one of the premier Technical Institutes of the country imparting quality technical education. The Institute has been progressing well on all fronts with time. Even though CORONA has brought changes in our lifestyle, it couldn't deter our spirits and innovations. The Institute is continuously striving to maintain the standards and live up to the expectations even during these testing times. The Institute has thrived well on all fronts in the last academic year 2020-21.

Online teaching through LMS is a new experience to all of us. The LMS team of the Institute has created the necessary LMS infrastructure so that the academic activities could be conducted smoothly in the online mode without interruption. Similarly, all the faculty have been equipped with the required digital tools including Laptops. The academic year has been successfully completed with the support of all the stakeholders. I congratulate all the teaching faculty for the remarkable transformation from "chalk and talk" to the "Online" mode. I am sure that this experience will facilitate enhancing our outreach programs, and blended mode will become a part of our teaching-learning process.

The 19th Convocation of the Institute was held in virtual mode on 9th October, 2021. The Hon'ble Minister for Education, GOI, Shri Dharmendra Pradhan Ji was the Chief Guest and Dr. K. Kasturirangan, Former Chairman ISRO and Chairman NEP-2020 was the Guest of Honor on the occasion.

The NITW Alumni Association has been doing great work by contributing in different ways for the development of the Institute. The ONLINE Teaching - Learning has brought to light the stark realities of disparities in the society. It was observed that a few students were not able to access the ONLINE classes because of lack of facilities. In response to a call given by the administration to the Alumni, nearly 225 Laptops have been donated by the Alumni to help the needy students.

Research, Publications and Patents have become a part of our Institute Work Culture. I am very happy that a large number of our faculty colleagues were recently sanctioned prestigious externally sponsored R&D Projects. I congratulate all of them. A large number of patents have been filed in this academic year 2020-21. My special congratulations to all the faculty colleagues whose patents were granted. I am confident that this work culture of "Academics blended with Projects, Publications and Patents" will take the Institute to greater heights.

The Institute has been periodically starting new programs making use of the expertise available in the Institute and the demands of the society. I am happy to inform that TWO new M.Tech Programs were started in this academic year 2020-21, viz., (1) M.Tech in Smart Electric Grid and (2) M.Tech in Biotechnology. The Institute has been in the forefront in implementing the NEP-2020. The curriculum of all the programs is being revised by incorporating the provisions of the NEP-2020.The revised curriculum will be implemented from the new academic year 2021-22. It is also being planned to start a new a 5-years integrated M.Sc program from the next academic year, 2021-22. This is only a beginning, but we have a long way to go before all the provisions of the NEP-2020 are completely implemented.

The students of the Institute have been excelling on all fronts. It is heartening to note that our Institute has done extremely well in the campus placements. A record number of UG and PG students were selected with attractive packages in the academic year 2020-21.

The Annual Report and Accounts Statement, 2020-21 presents the achievements of the institute, details of the academic activities, training and placement activities and various other developments taking place in the institute and the financial data sheets of the audit report. I place on record my deep sense of appreciation to all those involved in the preparation of this Annual Report. I also take this opportunity to thank the members of the faculty, non-teaching staff and the students of the institute who relentlessly work for the betterment of the institute.

Prof N V Ramana Rao
Director
NIT Warangal

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Vision Statement

Towards a global knowledge hub, striving continuously in pursuit of excellence in education, research, entrepreneurship and technological services to the society



Mission Statement

- “Imparting total quality education to develop innovative, entrepreneurial and ethical future professionals fit for globally competitive environment."

- "Allowing stake holders to share our reservoir of experience in education and knowledge for mutual enrichment in the field of technical education."

- "Fostering product oriented research for establishing a self-sustaining and wealth creating centre to serve the societal needs."



Objectives

- To create an educational environment in which students are prepared to meet the challenges of the modern industry and society, by equipping them with
    - Up-to-date technical knowledge
    - Analytical and practical skills
    - Management competence
    - A creative and innovative approach to work.
- To strengthen links with industry and commerce through lasting partnerships focusing on
    - Curriculum Development
    - Training and Placement
    - Consultancy and other services
    - Research and Development
- To provide within the Institute an environment where the staff are encouraged to maintain intellectual curiosity and improve technical expertise through continuous staff development programmes.
- To create conditions in which the institute is recognized as a self-regulating prime centre in Technical Education.



Pandit Jawaharlal Nehru, the architect of Modern India, had conceived and implemented the concept of Regional Engineering Colleges for technical advancement and promotion of national integration in the country. He laid the foundation stone for REC Warangal on 10th October 1959. REC Warangal holds the distinction of being the first in the series of RECs established in the country. Now elevated to the status of an NIT, it has the distinction of offering the highest number of postgraduate courses among NITs.

This reputed institute has sailed through several phases in its historical journey assimilating newer experiences, academic as well as administrative, and yet retaining its original sheen and noble objectives. Established as an affiliate college of Osmania University (1959), REC Warangal came under the purview of Jawaharlal Nehru Technological University (1972) with *full academic autonomy*, a status enjoyed by a few RECs in the country then. It was an affiliate college of Kakatiya University (1976) and then on, steadily marched towards a University Status. It was declared a Deemed University in the year 2002. It was subsequently given the status of Institute of National Importance and renamed as National Institute of Technology, Warangal.

During this span of **61** years of existence, it has become a proud *Alma Mater* for over 19623 graduates in different branches of technology, 12785 postgraduates and 837 doctorates in technology, science, management and humanities. The alumni of the institute can be found across the globe adorning very high positions in academics, industry, politics, administration, research and entrepreneurship, thus creating an international flavour for the institute. As part of its admission policies today, it draws students from different parts of the world for its UG, PG and Ph.D. programmes under Direct Admission for Students Abroad (DASA) and other schemes of the Government of India. It has thus become an International Institute of excellence, offering quality technical education. In its quest for establishing a brand image commensurate with its international complexion, it is striving towards excellence in several areas.

The Institute is presently offering eight undergraduate programmes in Civil, Electrical and Electronics, Mechanical, Electronics and Communication, Metallurgical & Materials, Chemical, Computer Science and Engineering and Biotechnology streams; and thirty two Postgraduate Programmes in diverse branches of Engineering, Sciences, MBA and MCA. The Institute also offers Ph.D. programmes in Engineering, Science, Management and Humanities disciplines.

The Institute strives to set higher standards for itself in imparting technical education, research and consultancy works. In this direction, several curricular and administrative reforms have taken place, notable among them being the introduction of Choice Based Credit System (CBCS) of Education.

The Institute has research projects sponsored by agencies such as CSIR, DST, DIT, DRDO, NRB, BRNS etc. during the year 2019-20, 46 Projects have been sanctioned to the Institute worth Rs.2052.67 Lakhs.

The institute has good infrastructure, which is being further improved under Technical Education Quality Improvement Programme (TEQIP-Phase III) funded by the World Bank. The placement of students through campus interviews during the year 2019-20 has been excellent. More than 200 organizations visited the campus and offered a total of 801 placements. Among the students, 572 were B.Tech students, 229 were students from M.Tech., M.Sc. (Tech.), M.Sc., MCA., and MBA.

The institute is located in a sprawling area with a residential campus with accommodation for all students and most of the members of the staff. Hostel facilities are being further strengthened by creating new hostels as well as renovating the existing ones. Sports facilities include huge playgrounds, an impressive modern stadium with a turf wicket for cricket and a national level 400 meter track. The Institute has 28 student clubs and 12 departmental associations, which organize several activities in order to promote holistic personality development among students.

The Alumni Association of the Institute is very active with fifteen chapters in various cities of the country and one chapter in USA. The institute maintains a close rapport with the alumni in all matters relating to the institute’s progress.

INTRODUCTION

1. Education System

Choice Based Credit System: Both the UG and PG programmes follow the Choice Based Credit System of Teaching and evaluation. The academic year is divided into two semesters, namely, odd and even semester.

Attendance: Attendance in all classes (lecturers / tutorials, laboratories, workshops etc) is compulsory. A student may be debarred from appearing for an examination on grounds of unsatisfactory attendance, which is less than 80% of number of classes held in each course at PG level and 75% in the case of UG courses.

Registration: Every student is required to be present and register at the commencement of each semester on the day notified in the Academic calendar.

- Registration for all courses is compulsory during the first two semesters of B.Tech programme and it is automatic when a student is admitted into the 1st year.
- From 3rd semester onwards, the registration is organized departmentally under the supervision of the Head of the Department.
- Only those students will be permitted to register who have:
    - Cleared all the dues of the Institute and Hostel in the previous semesters.
    - Paid the prescribed fees for the current semester, and
    - Not been debarred from registering for a specified period on disciplinary or any other ground.
    - Academic Requirements:
        - To be able to register for the second year and continue his/her study in the Institute at the end of the first year, a student must have completed satisfactorily at least 30 credits (after supplementary examinations) and
        - To be able to register for the third year, a student should have satisfactorily completed at least 30 credits in II year first and second Semesters put together (after supplementary examinations) and should have satisfactorily cleared all the courses of 1st year.
        - To be able to register for the IV year, a student should have satisfactorily completed at least 30 credits in III year first and second Semesters put together (after supplementary examinations) and should have satisfactorily cleared all the courses of 2nd year.

The Institute is adopting having the education system followed in IITs in terms of semester pattern, updating curriculum and choice based credit system.

2. New Initiatives

The institute is developing infrastructure as well as facilities for Teaching, Research and Development with a view to further enhancing the quality of teaching, learning and research. The following centres of excellence for research have been established.

- Centre for Advanced Materials (CAM)
- Centre for Automation and Instrumentation (CAI)
- Centre for Urban Transport Studies (CUTS)

New Centres being established

- Centre for Sustainable and Alternate Energies (CSAE)
- Teaching Learning Centre

AN OVERVIEW

3. Historical Background

National Institute of Technology, Warangal, formerly known as Regional Engineering College, witnessed some memorable milestones during its triumphant march:

October 10, 1959	Pandit Jawaharlal Nehru laid foundation stone for the College, the first in the chain of NITs (formerly RECs) in the country.
November 10, 1959	Registration of the Society of Regional Engineering College, Warangal
August, 1965	Commencement of UNESCO assistance project.
October, 1972	Change of affiliation of the College from Osmania University to Jawaharlal Nehru Technological University. Academic autonomy conferred on the College.
August 19, 1976	Change of affiliation of the College from JNTU to Kakatiya University.
July, 1978	AICTE grants the status of QIP (Quality Improvement Programme) Centre to the Civil Engineering Department for Ph.D and M.Tech. Programmes
August, 1981	Admission into B.Tech. through Common Entrance Examination for students from Andhra Pradesh.
January, 1990	The College is selected for assistance under UK-INDIA Project.
April, 1994	Commencement of UK - INDIA RECs Project.
October, 1996	Commissioning of a dedicated Internet connectivity through VSAT dish.
October 23-24, 1999	40th Foundation Day Celebrations. His Excellency Dr.C.Rangarajan, Governor of A.P. and General K.V. Krishna Rao (Retd. Chief of Army Staff) graced the occasion by their presence.
July 20, 2001	AICTE grants the status of QIP (Quality Improvement Programme) Centre to the following departments: Ph.D. Programme – Departments of Mechanical Engineering, Chemical Engineering and Mathematics M.Tech. Programme – Departments of Electrical Engineering and the Department of Electronics and Communication Engineering.
September 2001	Fiber Optic Campus LAN established
July, 2002	Board of Governors resolved to approve the new Memorandum Of Association (MOA) for conversion of Regional Engineering College, Warangal into National Institute of Technology (NIT), Warangal.
September, 2002	Institute renamed as National Institute of Technology, Warangal and conferred the status of Deemed University.
July, 2003	Commencement of admission of students into B.Tech through AIEEE stream
August, 2003	**Change over to IIT Pattern in Curriculum** Development and method of evaluation.
June, 2004	The Institute receives an assistance of Rs. 11.41 crores from the World Bank under TEQIP (Technical Education Quality Improvement Programme).
March 1, 2004	**Ist Convocation of NIT Warangal**. Prof. S.K. Joshi, Chairman, Board of Governors, IIT Roorkee and Former Director General, CSIR delivers the First Convocation address.
June 5, 2007	NIT's Act of Parliament received the assent of the President
January 25, 2008	Bharath Ratna Dr. A. P. J. Abdul Kalam, Former President visits Campus during TECHNOZION
	Honourable Minister of MHRD Smt. Purandeswari inaugurated New Computer Centre and lays foundation stone for Ultra Mega Hostel
October 10, 2008	NIT (REC) Golden Jubilee Year Celebrations

December 28, 2009	Inauguration of the Centre for Innovation and Incubation.
October 2012	NIT Warangal entered into an MoU with the Erasmus Mundus (Indo – Europe Academic Exchange Programme) Scheme, called, "HERITAGE" Programme. Eight Indian Higher Education Institutes (IHEIs) and 12 European Higher Education Institutes (EHEIs) are the major partners under this Programme
October 15, 2013	11th Convocation was held on 15th Oct. 2013, in which Dr. Krishna M. Ella, Chairman BOG, NIT Warangal, was the Chief Guest
August 9, 2014	12th Convocation was held on 9th Aug. 2014, in which Padma Sree Avinash Chander, Scientific Adviser to Raksha Mantri, Secretary, Dept. of Defence R&D and DG DRDO, Govt. of India, was the Chief Guest
December 13, 2015	13th Convocation was held on 13th Dec. 2015, in which Padma Shri A.S. Kiran Kumar, Secretary, Dept. of Space Chairman, Space Commmission and Chairman, ISRO, was the Chief Guest
October 8, 2018	Golden Jubilee Inauguration by His Excellency, Vice President of India, Sri M. Venkaiah Naidu.
August 17, 2019	17th Convocation was held on 17th Aug. 2019, in which, Prof. Nitin Kumar Tripathi, Director Special Degree Programs, AIT Bangkok, Thailand, was the Chief Guest
October 22, 2020	Foundation laid for Rudrama Devi Ladies Hostel Complex
October 22, 2020	Inauguration of Visvesvaraya Centre for Skill Development
October 22, 2020	Inauguration of Sardar Vallabhbhai Patel Athithi Griha
October 22, 2020	18 th Convocation held in Virtual mode
July 21, 2021	Curriculum revision as per NEP-2020.
October 01, 2021	Established Central Research Instrumentation Facility
October 01, 2021	Inauguration of NITW – SIEMENS Centre of Excellence
October 19, 2021	Foundation stone laid for Major Dhyan Chand Sports Complex
October 19, 2021	Foundation stone laid for Academic Buildings of :- (Civil and Mechanical Engineering Departments)
October 19, 2021	Inauguration of NITW – Hitachi Energy Smart Electric Grid Laboratory
October 19, 2021	19 th Convocation held in Virtual mode
2021 - 2022	Started 5 Year Integrated M.Sc. in Mathematics, Physics and Chemistry

4. Location

Warangal is located at the latitude of 18.01 and the longitude of 79.58.

The institute is located on 248 acres extending on either side of Hyderabad – Warangal National Highway at a distance of 3 Kms from Kazipet Railway Station and 12 Kms from Warangal Railway Station. It is 140 Kms from Hyderabad. Warangal enjoys a unique position in the cultural and historical map of the state. The exquisite and intricate architecture in Ramappa, Thousand Pillar Temple, Bhadrakali Temple and the Warangal Fort have been centres of attraction. Lovely gardens, wildlife sanctuaries, lakes and rocks in the vicinity are other places of interest for students and visitors. The place enjoys pleasant climate throughout the year except for a spell of hot summer during May-June.

5. Campus

It is a residential campus with all the basic facilities for the students, faculty and other staff to live on the campus. The following statistical figures might give an idea about the buildings on the campus. The plinth areas of the different buildings on the campus are: Administrative Building (3,331 Sqm), Academic Buildings (34,448 sqm), Library Building (3,610 sqm), Students Hostels (32,642 sqm), Sports Pavilion and Gallery (784 Sqm), Director's Bungalow, Staff Quarters and Guest House (31,598 sqm.) The road network in the campus runs to a length of 12 kms. Work is in progress for creating more space for varied purposes referred to above and also for constructing a network of roads which has become necessary in view of the hectic construction under way.

6. Administration

The Board of Governors (BoG)

1.	Prof. N. V. Ramana Rao, Chairperson I/c, Board of Governors, NITW & Director, N.I.T, Warangal.	Chairperson
2.	Shri Madan Mohan Additional Director General (HE) MoE, GoI, Shastri Bhavan, New Delhi	Member
3.	Ms. Darshana M Dabral, Jt. Secretary & Financial Advisor Dept. of Higher Education MoE, Government of India Shastri Bhawan, New Delhi.	Member
4.	Prof. B.S. Murty Director, Indian Institute of Technology, Hyderabad Kandi, Sangareddy.	Member
5.	Prof. K.V. Jayakumar Department of Civil Engineering National Institute of Technology, Warangal.	Member
6.	Shri V.N. Kameswara Rao Associate Professor Department of Civil Engineering National Institute of Technology, Warangal	Member (Upto 24.07.2020)
7.	Dr. K. Ramesh Associate Professor Dept. of Computer Science & Engineering National Institute of Technology, Warangal.	Member (from 25.07.2020)
8.	Prof. Ravi Kumar Puli Member Secretary, Telangana State Council of Science & Technology, (TSCOST) Hyderabad – 500 004.	Member
9.	Shri S. Goverdhan Rao Registrar National Institute of Technology, Warangal.	Secretary

The Finance Committee (FC)

1.	Prof. N. V. Ramana Rao Chairperson I/c, Finance Committee, NITW & Director, N.I.T, Warangal.	Chairperson
2.	Shri Madan Mohan ADG (HE) Ministry of Education, Govt. of India, Shastri Bhavan, NEW DELHI – 110 115	Member
3.	Ms. Darshana M Dabral Jt. Secretary & Financial Advisor Dept. of Higher Education Ministry of Education, Govt. of India Shastri Bhawan, New Delhi.	Member
4.	Prof. K.V. Jayakumar Department of Civil Engineering, National Institute of Technology Warangal.	Member
5.	Shri S. Goverdhan Rao Registrar National Institute of Technology Warangal.	Member-Secretary

Building Works Committee (BWC)

1.	Prof. N. V. Ramana Rao Chairperson & Director National Institute of Technology, Warangal.	Chairperson
2.	Shri D.K. Singh Dy. Director, (Finance), Integrated Finance Division Department of Higher Education, MoE GoI, New Delhi	Member
3.	Prof. P. Bangaru Babu Dean (Planning & Development), National Institute of Technology, Warangal.	Member
4.	Shri N. Naga Sambasiva Rao Chief Engineer Central Public Works Dept., Nirman Bhawan, Sultan Bazar, Hyderabad	Member
5.	Shri K. Kishan Chief General Manager (Opn-II)(Electrical), TSNPDCL, Warangal	Member
6.	Prof. Ravi Kumar Puli Member Secretary, Telangana State Council of Science & Technology, (TSCOST), Hyderabad	Member
7.	Shri S. Goverdhan Rao Registrar, National Institute of Technology, Warangal.	Member-Secretary

The Director

The Head of the Institution is the Director with full financial and administrative powers.

The Senate

CHAIRMAN

Prof. N. V. Ramana Rao
Director, NITW & Chairman, Senate

Shri. S. Goverdhan Rao
Registrar, NITW & Secretary, Senate

Members (Department-wise)

Civil Engg.
Dr. K.V. Jaya Kumar
Dr. N.V.Umamahesh
Dr. C.S.R.K.Prasad
Dr. M. Chandrasekhar
Dr. C.B.Kameswara Rao
Dr. P.Anand Raj
Dr. D.Ramaseshu
Dr. G. Rajesh Kumar
Dr. Deva Pratap
Dr.P.Ratish Kumar
Dr.T.D.Gunneswara Rao
Dr. E.V. Ratnam
Dr.V.Ramana Murthy

Electrical Engg.
Dr. M. Sydulu
Dr. D.M.Vinod Kumar
Dr. D.V.S.S.Siva Sarma
Dr. N.Subrahmanyam
Dr. Bhagwan K.Murthy
Dr. N.Viswanathan
Dr. V.T.Somasekhar
Dr. S.Srinivasa Rao
Dr. M.Sailaja Kumari

Mathematics
Dr. J.V.Ramana Murthy
Dr. Y.N. Reddy
Dr. KNS Kasiviswanadham
Dr. Debashis Dutta
Dr.D.Srinivasa Charya

Physics
Dr. L. Ramgopal Reddy
Dr. R.L.N. Sai Prasad
Dr. K. Venugopal Reddy
Dr. D. Dinakar

SOM
Dr. M. Ravinder Reddy
Dr. V. Rama Devi

Electronics & Communications Engg.
Dr. T.Kishore Kumar
Dr. L.Anjaneyulu
Dr. N. Bheema Rao
Dr. C.B. Rama Rao

Chemical Engg.
Dr. Y. Pydisetty
Dr. Sonawane Shirish Hari
Dr. A.Venu Vinod
Dr. A. Sharat Babu
Dr. K.Anand Kishore

Computer Science & Engg.
Dr. B.B. Amberker
Dr. S.G.Sanjeevi
Dr. R.B.V. Subrahmanyam
Dr. Pisipati Radha Krishna

Mechanical Engg.
Dr. K.Madhu Murthy
Dr. S.Srinivasa Rao
Dr. P.Bangaru Babu
Dr. A.Venugopal
Dr. N.Selva Raj
Dr. P. Ravi Kumar
Dr. G.Amba Prasada Rao
Dr. L.Krishnanand
Dr. A. Neelakanteswara Rao
Dr. K.V.Sai Srinadh
Dr. R.Narasimha Rao
Dr. Adepu Kumar
Dr.V.Suresh Babu

Chemistry
Dr. A. Ramachandraiah
Dr. K.Laxma Reddy
Dr. V.Rajeswara Rao
Dr. K.V.Gobi
Dr. P. Venkata Sri Laxmi

Biotechnology
Dr. R. Satish Babu

Humanities & Social Sciences
Dr. K. Madhavi

Metallurgical & Materials Engg.
Dr. G.V.S.Nageswara Rao
Dr. N. Narasaiah
Dr. C. Vanitha

Physical Education
Dr.P.Ravi Kumar
Dr.R.Dayanidhi
Dr.P.Madhusudhan Reddy

Honorable Senators on Deputation

Prof. Ch.S.Prakasa Rao Dept. of Mechanical Engineering	-	Director, NIT, Andhra Pradesh
Dr. DVLN Somayajulu Dept. of Computer Science & Engineering	-	Director, IIITDM, Kurnool
Dr. N.V.S.Narasimha Sarma Dept. of Electronics & Comm. Engineering	-	Director, IIIT, Trichy

External Members

Prof. T. Sundarrajan Dept. of Mechanical Engineering	-	Professor, IIT Madras, Chennai
Dr. Kirti Srivastava	-	Chief Scientist, National Geographical Research Institute Hyderabad
Prof. Debashis Acharya	-	School of Economics & Dean (Student Welfare), University of Hyderabad, Hyderabad

The Deans' Committee

The Deans' Committee assists the Director in taking decisions in day-to-day Administration.

The Deans

The Director is assisted by 6 Deans namely, Dean (Research & Consultancy), Dean (Academic), Dean (Faculty Welfare), Dean (Planning & Development), Dean (Students' Welfare) and Dean (International Relations & Alumni Affairs). There are Associate Deans to assist the Deans in day-to-day activities

The Heads of the Departments

The Heads of the Departments look after all the affairs pertaining to the respective Department.

The Registrar

The Registrar is the head of the non-teaching staff of the Institute. He is assisted by Deputy Registrars and they in turn are assisted by the Assistant Registrars.

The Chief Warden

The Chief Warden is the head of the students' hostels. He is in turn assisted by a team of wardens.

Other Committees

a) Deans' Committee:

All the Deans are the members with the Director, as Chairman and Registrar as the Secretary

b) The Hostel Advisory Council (H.A.C.):

1. Director	…	Chairman
2. Registrar	…	Member
3. Dean (Students' Welfare)	…	Member
4. Dean (Faculty Welfare)	…	Member
5. Dean (International Relations & Alumni Affairs)	…	Member
6. Dean (Planning & Development)	…	Member
7. Dean (Academic)	…	Member
8. Chief Warden	…	Convener

Warden Representatives:

1. Dy.Chief Warden	…	Member
2. Dy.Chief Warden, (Priyadarshini Mess)	…	Member
3. Dy.Chief Warden (Warden Mess-I)	…	Member
4. Warden IFC-C	…	Member
5. Warden (Block- 1.8K)	…	Member
6. Warden(Block-11)	…	Member
7. Warden (Block- 1K)	…	Member
8. Warden(New LH)	…	Member
9. Warden (Block-1K)	…	Member

Student Representatives:

1. Mess Secretary	…	Member
2. LH Representative	…	Member

Special Invitees:

1. Professor I/c E&MU	…	Member
2. Medical Officer	…	Member
3. Executive Engineer (E&MU)	…	Member

c) Departmental Academic Committee – Undergraduate (DAC UG):

1. Head of the Department	…	Chairman
2. Two Professors of the Department (By rotation, for two years)	…	Members
3. Two Associate Professors of the Department	…	Members
4. Two Assistant Professors (By rotation for two years)	…	Members

Note:

1. The Head of the department will nominate one of the members as secretary.
2. There shall be one DAC-UG for every department that is involved in the teaching for the B.Tech. programme.
3. The Chairman may co-opt and / or invite more members including external experts while framing the curriculum / or revising the curriculum.

Functions:

1. To monitor the conduct of all undergraduate courses offered by the Department and course work of undergraduate programme.
2. To ensure academic standards and excellence of the courses offered by the department.
3. To develop the curriculum for the undergraduate courses offered by the Department and recommend the same to the Board of Studies.
4. To review and approve grades.
5. To consolidate the registration of students and communicate to the course instructors and Dean (Academic Affairs).
6. To consider any matter related to the undergraduate programme(s) of the Department.
7. To take up any responsibility or function assigned by the Senate or the Chairman of the Senate or Chairman of the Board of Studies.
8. To examine the malpractices of examinations and submit a suitable recommendation to the Dean, Academic Affairs.

d) Departmental Academic Committee – Postgraduate & Research (DAC-PG&R):

1. Head of the Department	…	Chairman
2. Two Professors of the Department (By rotation, for two years)	…	Members
3. Two Associate Professors of the Department (By rotation, for two years)	…	Members
4. Two Assistant Professors of the Department possessing Ph.D Degree	…	Members

Note:

1. The Head of the Department will nominate one of the members as secretary.
2. There shall be one DAC-PG&R for every department, which is involved in the teaching for any of the PG degree programme.
3. The Chairman may co-opt and / or invite more members including external experts while framing or revising the curriculum.

Functions:

1. To monitor the conduct of all postgraduate courses and course work of Ph.D programme.
2. To ensure academic standards and excellence of the courses offered by the department.
3. To develop the curriculum for the postgraduate courses offered by the department and recommend the same to the Board of Studies.
4. To review and approve grades.
5. To consolidate the registration of Postgraduate and Ph.D., students and communicate to the course instructors and Dean (Academic Affairs).
6. To consider any matter related to the postgraduate programme(s) and Ph.D. programme of the Department and make suitable recommendation to the Board of Studies.
7. To monitor the progress of research of all the candidates of the Department.
8. To forward the recommendations of the Doctoral Scruitiny committee and the panel of External Examiners as recommended by the DSC to the Dean (Academic Affairs).
9. To take up any responsibility or function assigned by the Senate or the Chairman of the Senate of Chairman of the Board of Studies.

e) Doctoral Scrutiny Committee (DSC):

1. Head of the Department	…	Chairman
2. Research Supervisor	…	Member & Secretary
3. Co-supervisor (if any)	…	Member
4. Two faculty members of the Department	…	Members
5. One faculty member of the allied Department	…	Member

Note:

If the Research Supervisor happens to be the Head of the Department, another faculty member of the Department has to be included in DSC.

Functions:

1. To formulate the course work of the candidate.
2. To scrutinize syllabi of courses of self-study (if any) prepared by the Research Supervisor(s) and send the same to Dean (Academic Affairs).
3. To finalise and forward the grades of the candidate in each of the courses to the Dean (Academic Affairs).
4. To review the progress of the candidate once every six months and send the progress report to the Dean (Academic Affairs).
5. To assess and approve the research proposal of the candidate.
6. To assess and approve the adequacy of work in the Pre-synopsis seminar and communicate the same through Departmental Research Committee to the Dean (Academic Affairs).
7. To act as members of the Viva-Voce Board along with the external examiner and submit the Viva-voce report.

f) Stores Purchase Committee

1. Dean (Research & Consultancy)	…	Chairman
2. Board Members (Internal) - Two	…	Members
3. Registrar	…	Member
4. Head of the concerned Department	…	Member
5. Principal Investigator, in case of Projects	…	Member
6. Dy. Registrar (Central Stores)	…	Convenor

g) Disciplinary Committee

1. Director	…	Chairman
2. Dean (R&C)	…	Member
3. Dean (AA)	…	Member
4. Dean (FW)	…	Member
5. Dean (SW)	…	Member
6. Dean (P&D)	…	Member
7. Registrar	…	Member & Secretary

h) Accommodation Committee

Registrar & Estate Officer	…	Chairman
Associate Dean (Works)	…	Member
Dy. Registrar (Admin)	…	Member

i) Library Advisory Committee

Dean (Academic)	…	Chairman
Registrar	…	Member
One faculty member from each Academic Department to be nominated by the Hod	…	Member
Students one each from UG, PG and Ph.D to be nominated by Dean (SW)	…	Member
Librarian	…	Member Secreatary

j) Institute Dispensary

Registrar	…	In-Charge

k) Games Committee

Dr. M. Ravinder Reddy	…	Chairman

l) SC / ST Cell

Dr. J. Ravikumar	…	Coordinator

m) Minorities Cell

Dr. Arif Ali Baig Moghal	…	Coordinator

n) Internal Complaint Committee

Dr. B. Lakshmi	…	Chair Person
Shri S. Venkateswaran	…	Member
Dr. C. Vanitha	…	Member
Ms. Ruhi Fathima, Secretary Human Rights&Crime control Council	…	Member
Dr. J. Pranitha	…	Member
Three Student Council Members to be nominated by Dean (SW)	…	Member

o) Differently Abled People Cell

Dr. V. Rama … Coordinator

p) OBC Cell

Dr. V. Rama … Coordinator

q) Legal Cell

Registrar … In-Charge

r) Administrative & Other Officers

S.No.	Name	Designation	Dept../Sec.
1.	Shri S. Goverdhan Rao	Registrar	Registrar Office
2.	Prof. A. Venu Gopal	Dean (Academic)	Deans' Office
3.	Prof. J.V. Ramana Murthy	Dean (Student Welfare)	Deans' Office
4.	Prof. P. Bangaru Babu	Dean (Planning & Development)	Deans' Office
5.	Prof. G. Rajesh Kumar	Dean (Research & Consultancy) (upto 25.08.2020)	Deans' Office
6.	Prof. V. Rajeswar Rao	Dean (Research & Consultancy) (from 25.08.2020)	Deans' Office
7.	Prof. D.V.S.S. Siva Sarma	Dean (Faculty Welfare) (upto 24.08.2020)	Deans' Office
8.	Prof. G. Amba Prasad Rao	Dean (Faculty Welfare) (from 24.08.2020)	Deans' Office
9.	Prof. N. Selvaraj	Dean (IR&AA)	Deans' Office
10.	Sri G. Ramesh	Executive Engineer	E & MU
11.	Sri K. Yella Swamy	Technical Officer	MED
12.	Sri. S. Chandrasekhar	Deputy. Registrar (Retired on 30.09.2020)	Purchase & Stores
13.	Sri. P. Bhargava Reddy	Scientific/Technical Officer	CS & E
14.	Dr. Saroj Susheel Shamkuwar	Senior Medical Officer (Re-patriated 30-06-2020)	Institute Health Centre
15.	Dr. Ch. Karthik Chintala	Medical Officer	Institute Health Centre
16.	Dr. Pradeep Dodda	Medical Officer	Institute Health Centre
17.	Shri. Gardasu Barlakrishna	Assistant Librarian	Central Library
18.	Dr. K. Veeranjaneyulu	Librarian	Central Library
19.	Dr.Anchoori Karthik	Medical Officer	Institute Health Centre
20.	Shri. Pelluru Suresh	Executive Engineer	E & MU
21.	Shri. Srinivsa Nishtala	Deputy Registrar (Re-Patriated 29-10-2020)	Administrative Section
22.	Shri S. Venkateswaran	Dy. Registrar (Admin)	Administration

s. Non-Teaching Staff

S No. Name & Designation

SUPERINTENDENT SG-II

1. Raju G (from 10.03.2021)

SUPERINTENDENT

1. Samba Murthy M (up to 09.03.2021)
2. Zafar Md (up to 09.03.2021)
3. Gopinath R (up to 09.03.2021)
4. Quraishi A.A
5. Prakash S S (from 10.03.2021)
6. Quamar Pasha S A (from 10.03.2021)
7. Shamshul Hussain Md (from 10.03.2021)

ASSISTANT (SG-II)

1. Parasuramulu R (up to 09.03.2021)
2. Sridhar Rao M
3. Bhasker J
4. Jai Singh A
5. Dilip Kumar T
6. Prem Kumar P
7. Narender V
8. Srinivas Rao K
9. Suresh V
10. Aliullasha Khader Md
11. Mahesh Kumar Y
12. Hymavathi P
13. Veda Prakash G
14. Srinivas R
15. Dayakar P (from 10.03.2021)
16. Indira Priyadarshini B (from 10.03.2021)

JUNIOR ASSISTANT

1. Ramesh D (up to 09.03.2021)
2. Vara Prasad A (up to 09.03.2021)
3. Bhaskar P (up to 09.03.2021)
4. Shoukat Ali Md. (up to 09.03.2021)
5. Rajendra Prasad P (up to 09.03.2021)
6. Suresh kumar. M (up to 09.03.2021)
7. Srinivas J (up to 09.03.2021)
8. Jafar Md
9. Akbar Md (from 10.03.2021)
10. Heerulal P (from 10.03.2021)
11. Kishore Kumar N (from 10.03.2021)
12. Inqushaf Ali Md. (from 10.03.2021)
13. Sridhar Kumar G (from 10.03.2021)
14. Sambaiah G (from 10.03.2021)
15. Srikanth P (from 10.03.2021)

S No. Name & Designation

SENIOR SUPERINTENDENT

1. Raju G (up to 09.03.2021)
2. Samba Murthy M (from 10.03.2021)
3. Zafar Md (from 10.03.2021)
4. Gopinath R (from 10.03.2021)

ASSISTANT (SG-I)

1. Prakash S S (up to 09.03.2021)
2. Quamar Pasha S A (up to 09.03.2021)
3. Shamshul Hussain Md (up to 09.03.2021)
4. Bala Subramanyam G
5. Shiva Kumar P
6. Rama Rao A
7. Srinivasa Reddy M
8. Sanjeeva M
9. Kiran Kumar T
10. Sadar Lal M
11. Afzal Md.
12. Nagender Rao K
13. Shyamala J
14. Venkateswarlu S
15. Parasuramulu R (from 10.03.2021)

SENIOR ASSISTANT

1. Dayakar P (up to 09.03.2021)
2. Bhaskar T
3. Someshwar Rao A
4. Ms. Husna
5. Padmaja G
6. Kiran Kumar A
7. Ashwin Kumar D
8. Dr. Nanu Lunavath
9. Indira Priyadarshini B (up to 09.03.2021)
10. Srinivas T
11. Dr. Mangilal B
12. Rajanna M
13. Jagadeesh Kumar A
14. Ramesh D (from 10.03.2021)
15. Vara Prasad A (from 10.03.2021)
16. Bhaskar P (from 10.03.2021)
17. Shoukat Ali Md. (from 10.03.2021)
18. Rajendra Prasad P (from 10.03.2021)
19. Suresh kumar. M (from 10.03.2021)
20. Srinivas J (from 10.03.2021)

S No. Name & Designation

PERSONAL ASSISTANT

1. Renuka D (from 10.03.2021)
2. Ashok Kumar P (from 10.03.2021)

TECHNICAL ASSISTANT SG-II

1. Rameeja Bee K
2. Rangilal B (from 10.03.2021)

TECHNICAL ASSISTANT

1. Ramesh K(Sr.) (up to 09.03.2021)
2 Veeranna T (from 10.03.2021)
3 Srinivas B (from 10.03.2021)
4 Suryanarayana T (from 10.03.2021)
5 Harinath N (from 10.03.2021)
6 Nagabhushanam A (from 10.03.2021)
7 Laxman A (from 10.03.2021)
8 Narasimha M (from 10.03.2021)
9 Ramesh K(Jr.) (from 10.03.2021)
10. K. Ravinder (from 10.03.2021)
11. Sudhakar V (from 10.03.2021)

S No. Name & Designation

SENIOR STENOGRAPHER

1. Renuka D (up to 09.03.2021)
2. Ashok Kumar P (up to 09.03.2021)

SENIOR TECHNICAL ASSISTANT

1. Karuna Rani M
2. Aparna T
3. Govinda Rao D
4. Padma Sri K. S. S. S.
5. Gnaneshwar D (Vol. Rtd., on 30.11.2020)
6. Rangilal B (up to 09.03.2021)
   Ramesh K (from 10.03.2021)

ASST. ENGINEER

1. Sardar Singh M

S No.	Name & Designation
	TECHNICIAN (SG-I)
1.	Srinivas B (up to 09.03.2021)
2.	Suryanarayana T (up to 09.03.2021)
3.	Harinath N (up to 09.03.2021)
4.	Chandra Murthy V (Retired on 30.06.2020)
5.	Nagabhushanam A (up to 09.03.2021)
6.	Narasimha M (up to 09.03.2021)
7.	Venkateswarlu V (Retired on 30.09.2020)
8.	Ramesh K(Jr.) (up to 09.03.2021)
9.	K. Ravinder (up to 09.03.2021)
10.	Veeranna T (up to 09.03.2021)
11.	Sudhakar V (up to 09.03.2021)
12.	Purushottam K (from 10.03.2021)
13.	Ramchander Y (from 10.03.2021)
14.	Parasu Ramulu K (from 10.03.2021)
15.	Sudhakar N (from 10.03.2021)
16.	Venugopal S (from 10.03.2021)
17.	Srinivasulu N (from 10.03.2021)
18.	Ravinder R (from 10.03.2021)
19.	Ravi S (from 10.03.2021)
20.	Veeranna T (from 10.03.2021)
21.	Veerender V (from 10.03.2021)
22.	Chandra Narayana A (from 10.03.2021)
23.	Vijay Kumar K (from 10.03.2021)
24.	Mahendra Kumar K (from 10.03.2021)

S No.	Name & Designation
	TECHNICIAN (SG-II)
1.	Purushottam K (up to 09.03.2021)
2.	Ramchander Y (up to 09.03.2021)
3.	Parasu Ramulu K (up to 09.03.2021)
4.	Sudhakar N (up to 09.03.2021)
5.	Venugopal S (up to 09.03.2021)
6.	Srinivasulu N (up to 09.03.2021)
7.	Ravinder R (up to 09.03.2021)
8.	Ravi S (up to 09.03.2021)
9.	Veeranna T (up to 09.03.2021)
10.	Veerender V (up to 09.03.2021)
11.	Chandra Narayana A (up to 09.03.2021)
12.	Vijay Kumar K (up to 09.03.2021)
13.	Anand Singh K
14.	Mahendra Kumar K (up to 09.03.2021)
15.	Sunil Kumar D
16.	Devender B
17.	Veeraiah D (from 10.03.2021)
18.	Sambayya V (from 10.03.2021)
19.	Ramesh M (from 10.03.2021)
20.	Rajamouli A (from 10.03.2021)
21.	Ramulu B (from 10.03.2021)
22.	Kumaraswamy M (from 10.03.2021)
23.	Shankaraiah M (from 10.03.2021)
24.	Shankaraiah G (from 10.03.2021)

	SENIOR TECHNICIAN
1.	Veeraiah D (up to 09.03.2021)
2.	Sambayya V (up to 09.03.2021)
3.	Ramesh M (up to 09.03.2021)
4.	Rajamouli A (up to 09.03.2021)
5.	Ramulu B (up to 09.03.2021)
6.	Kumaraswamy M (up to 09.03.2021)
7.	Shankaraiah M (up to 09.03.2021)
8.	Shankaraiah G (up to 09.03.2021)

	TECHNICIAN / WORK ASSISTANT
1.	Santosh G
2.	Ramesh A
3.	Anandam G (from 10.03.2021)
4.	Ramesh A (from 10.03.2021)
5.	Rajender K (from 10.03.2021)
6.	Abdul Gaffar Md (from 10.03.2021)
7.	Mallikarjun K (from 10.03.2021)
8.	Mahboob Md (from 10.03.2021)

S No.	Name & Designation
	JUNIOR ASSISTANT (UPGRADED)
1.	Ramesh A (up to 09.03.2021)
2.	Anandam G (up to 09.03.2021)
3.	Ramesh Babu Ch
4.	Kishore Kumar N (up to 09.03.2021)
5.	Akbar Md (up to 09.03.2021)
6.	Heerulal P (up to 09.03.2021)
7.	Bikshapathy Y
8.	Farooq Azam Md
9.	Narayana. G
10.	Kamala K
11.	Kumar Swamy M
12.	Krishna Veni P
13.	Rajender K (up to 09.03.2021)
14.	Sambaiah G (up to 09.03.2021)
15.	Sanjeevaiah K (Retired on 31.03.2021)
16.	Gouri Shankar G
17.	Sambaiah A
18.	Tirupathi B (Expired on 22.10.2020)
19.	Srihari G
20.	Inqushaf Ali Md. (up to 09.03.2021)
21.	Sridhar Kumar G (up to 09.03.2021)
22.	Ramesh V
23.	Abdul Gaffar Md (up to 09.03.2021)
24.	Ravinder M
25.	Eshwar P
26.	Bikshapathy A
27.	Narasimhulu N (Expired on 03.11.2020)
28.	Srikanth P (up to 09.03.2021)
29.	Narasaiah J
30.	Aruna Mary D
31.	Shaheen Begum
32.	Zaheeruddin Md.

S No.	Name & Designation
	TECHNICIAN (UPGRADED)
1.	Rajaiah K
2.	Srinivas A
3.	Mallikarjun K (up to 09.03.2021)
4.	Jumani L (Retired on 30.06.2020)
5.	Dayakar Y
6.	Nagamani V (Expired on 04.03.2021)
7.	Saraiah P
8.	Yadimallu P
9.	Murali Krishna K
10.	Laxmi T
11.	Venkatamma K
12.	Rajamma J
13.	Rajanna J
14.	Ilaiah R
15.	Sajeeda Khatoon (Retired on 30.11.2020)
16.	Surayya B
17.	Jayasri B
18.	Pratap G
19.	Murali G
20.	Sailu T (Retired on 30.06.2020)
21.	Yakaiah J
22.	Kumara Swamy A

S No.	Name & Designation
	CARETAKER SG-I
1.	Venkateswarlu E
2.	Dasthagir Md
3.	Komaraiah J
4.	Beeraiah G
5.	Mahboob Md (up to 09.03.2021)
6.	Mohd. Ameer (Retired on 31.12.2020)
7.	Nageshwar Rao.G (Retired on 30.04.2020)
8.	Venkataswamy N
9.	Sammaiah P
10.	Ilaiah M (Retired on 30.06.2020)
11.	Ramulu .N
12.	Ilaiah A (Retired on 30.06.2020)

S No.	Name & Designation
	SENIOR CARETAKER
1.	Ravi. M
2.	Tirupathi T
3.	Lal G
4.	Kumara Swamy. K
5.	Kumar. P
6.	Kumar. B
7.	Kumara Swamy.G
8.	Sadanandam .B
9.	Sailu E (Expired on 23.11.2020)
10.	Sammaiah N
11.	Cheralu M
12.	Veeraiah K
13.	Prasad S
14.	Venkataiah K
15.	Damodar Reddy V
16.	Suvarna.N (Retired on 30.06.2020)
17.	Nirmala.R
18.	Ramesh.T

	CARETAKER SG-II
1.	Ialiah G
2.	Krishna Swamy N
3.	Sambaiah G
4.	Chandru G
5.	Sadanandam B
6.	Kumara Swamy B
7.	Yellaiah S
8.	Azeez Khan Md
9.	Raju K
10.	Sambaiah Gillapally
11.	Ramulu N
12.	Afzal Pasha. Mohd
13.	Jayaraju K

	SENIOR ATTENDANT
1.	Ashok K (from 10.03.2021)
	ATTENDANT
1.	Ashok K (up to 09.03.2021)

7. Academic Programmes

The Institute offers the following undergraduate, postgraduate and doctoral programmes:

B.Tech., M.Tech., M.Sc., M.Sc (Tech), MCA, MBA and **Ph. D.**

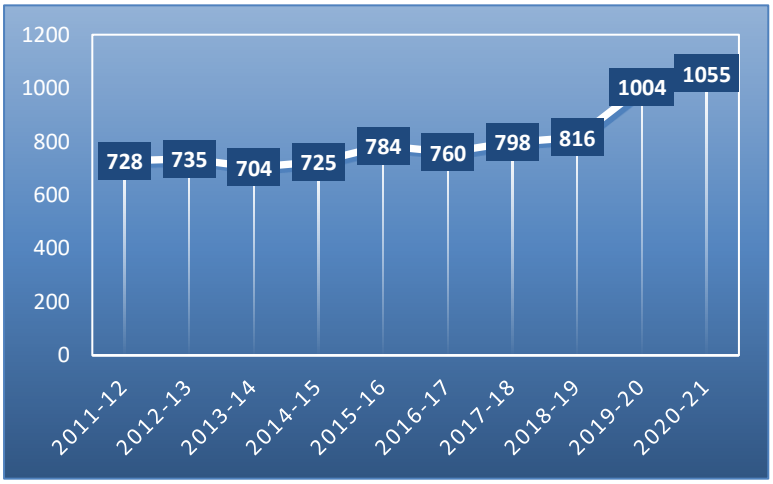
8. Courses Offered

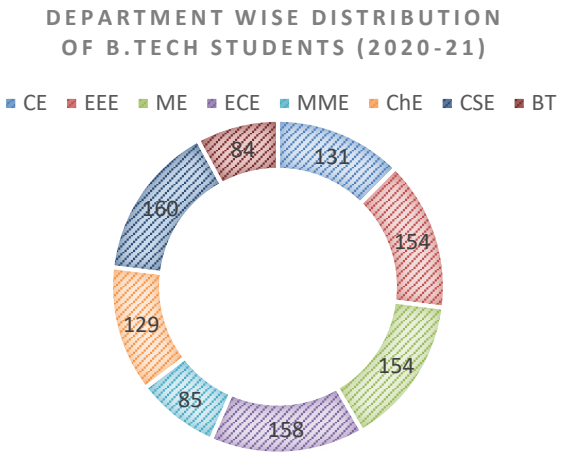
Undergraduate Courses (B.Tech.)

Under Graduate (B.Tech. Degree) programs are offered in the following disciplines by the respective program hosting departments.

Branch	Current Year Sanctioned Intake	DASA	Study in India	ICCR	Year Started in
Civil Engineering	117	22	10	4	1959
Electrical and Electronics Engineering	139	24	10	5	1959
Mechanical Engineering	139	23	10	5	1959
Electronics & Communication Engineering	139	24	14	5	1971
Metallurgical and Materials Engineering	79	5	5	1	1965
Chemical Engineering	115	11	10	4	1964
Computer Science and Engineering	139	24	16	5	1983
Bio-technology	78	5	5	1	2006
Total Seats	**945**	**138**	**80**	**30**	-

Total number of B.Tech students admitted in each academic year





The support departments are:

i) Mathematics
ii) Physics
iii) Chemistry
iv) School of Management
v) Humanities and Social Sciences

Postgraduate Programmes in Engineering: M.Tech.

Statement showing total enrolment of the PG - students for the academic year 2020-2021 :

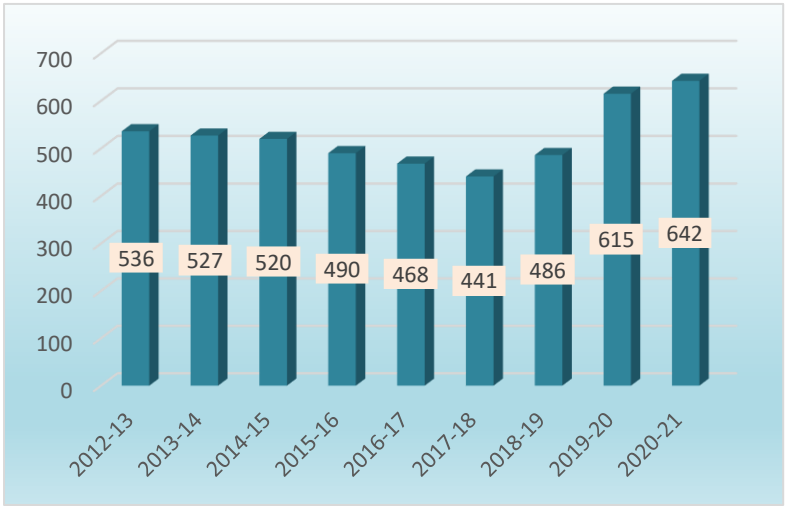
Sl No	Course Name	Sanctioned Intake	Total Boys	Girls	ICCR	Total (including ICCR)	Year Started in
	Engineering						
	Civil Engineering						
1	Engineering Structures	30	26	3	1	29	1967
2	Geo-Technical Engineering	30	22	6		28	1964
3	Transportation Engineering	30	21	7		28	1968
4	Water Resource Engineering	30	25	4		29	1964
5	Remote Sensing & GIS	20	12	8		20	2000
6	Environmental Engg.	30	20	7		27	2004
7	Construction Techniques & Management	30	29	0		29	2008
8	Waste Management	20	14	2		16	2020
	Electrical Engineering						
1	Power Electronics & Drives	33	28	5		33	1964
2	Power Systems Engg.	32	25	5		30	1964
3	Smart Electric Grid	30	23	7		30	2020
	Mechanical Engineering						
1	Thermal Engineering	22	18	0		18	1964
2	Manufacturing Engineering	22	20	1		21	1966
3	Computer Intergrated Manufacturing	20	19	1		20	2000
4	Machine Design	22	20	2		22	2000
5	Automobile Engineering	20	17	2		19	2008
6	Materials and Systems Engineering Design	15	14	1		15	2013
7	Additive Manufacturing	12	11	0		11	2014
	Electronics & Communication Engineering						
1	Electronics Instrumentation	26	18	7		25	1966
2	VLSI System Design	24	18	4		22	2001
3	Advanced Communication Systems	30	18	8		26	2006
	Metallurgical and Materials Engineering						
1	Industrial Metallurgy	20	17	2		19	1983
2	Materials Technology	20	19	1		20	2008
	Chemical Engineering						
1	Chemical Engineering	25	15	7	1	22	1968
2	Process Control	25	14	5		19	2016
	Computer Science & Engineering						
1	Computer Science and Engineering	25	19	5		24	1987
2	Computer Science & Information Security	25	21	3		24	2008

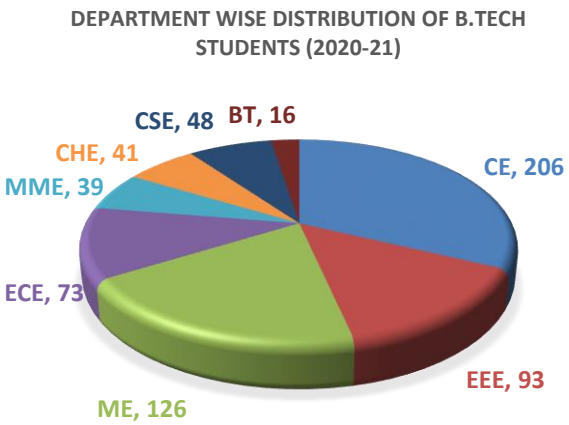
	Bio-Technology						
1	Bio-Technology	20	3	13		16	2020
	Total	**688**	**526**	**116**		**642**	
	Sciences						
1	M.Sc. Mathematics (Applied Mathematics)	30	19	8		27	1970
2	M.Sc. Mathematics (Mathematics and Scientific Computing)	30	20	7		27	2001
3	M.Sc. Tech. Engineering Physics	60	40	10		50	1970
4	M.Sc. Chemistry (Organic Chemistry)	30	17	12		29	1977
5	M.Sc. Chemistry (Analytical Chemistry)	30	15	11		26	1999
	Total	**180**	**111**	**48**		**159**	
	MCA						
1	Master of Computer Applications	58	39	15		54	1986
	School of Management						
1	Master of Business Administration	77	32	10		42	2000
	Grand Total	**1001**	**708**	**189**		**897**	

Doctoral programmes (leading to the degree of Ph.D) are offered in

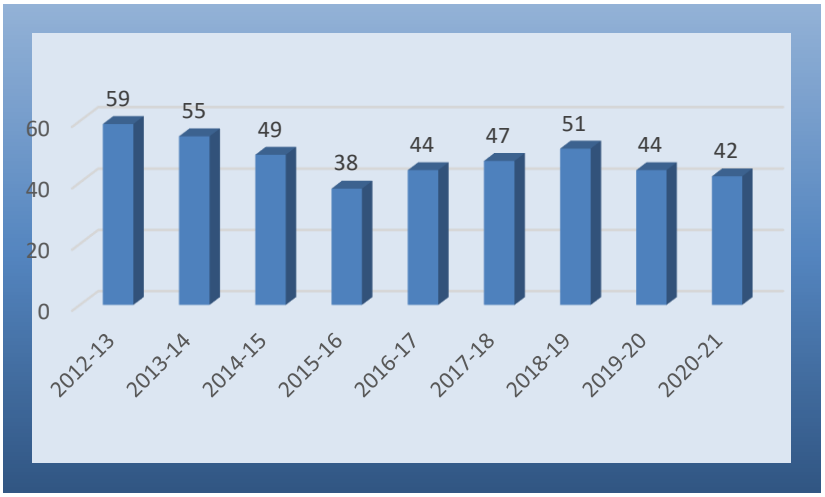
a) All branches of Engineering and Technology
b) Sciences (Mathematics, Physics and Chemistry)
c) Humanities & Social Sciences
d) Management

Total number of M.Tech students admitted in each academic year

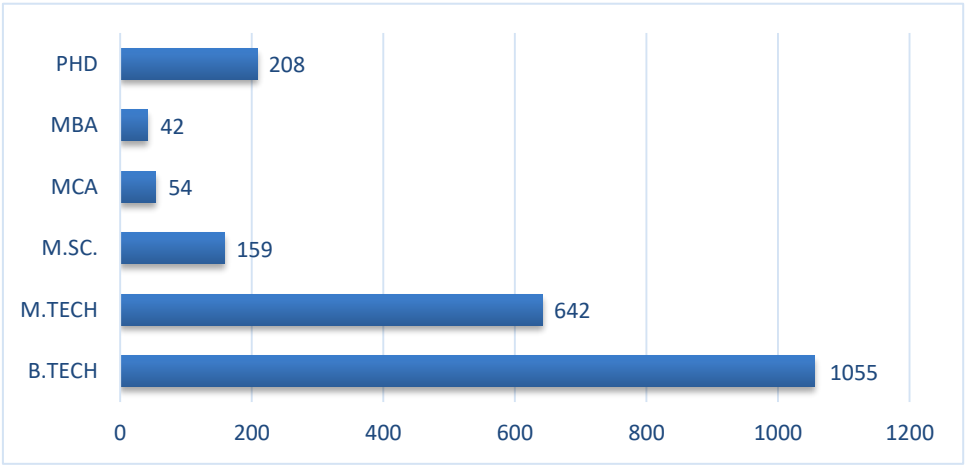




Total number of MBA students admitted in each academic year



Students admitted during 2020-21



9. Admission Procedure

Admission into B. Tech.

Admissions into the B.Tech. Programmes are made on the basis of the performance of students in the JEE Main examination for Indian Nationals and under the DASA scheme for NRIs following the guidelines of CCB (Central Counselling Board). The CCB works under direction from Government of India, MHRD and with full co-operation from National Informatics Centre (NIC), CBSE, and participating institutions (PIs). The rules and regulations for admission change from time to time. The main stages in the procedure are the entrance test (JEE Main), off-line counselling, on-line counseling and admission.

Among the AIEEE, there shall be two mode of admissions viz. (a) qualified AP State pool (b) qualified national pool. Of them reservation of seats is as per GoI norms. In addition to them, students are admitted under DASA programme as per the recommendations of the Ministry/ICCR, etc.

B Tech Programme Structure

The total course package for B.Tech Degree Program typically consists of the following components.

a) Basic Science Core Courses ≥ 20 Credits
b) Other Engineering Core courses ≥ 28 Credits
c) Humanities and Social Science Core Courses ≥ 7 Credits
d) Program Core Courses ≥ 81 Credits
e) Departmental Electives ≥ 18 Credits
f) Open Elective Courses ≥ 6 Credits
(Open Elective Courses can be any of the following: Basic Sciences, Other Engineering Courses, Humanities, Social Science, Management)
g) Mandatory Courses = 04 credits
(Environmental studies: 3, Seminar-1, Extra Academic Activity-0)
h) Departmental/Program Major Project = 06 Credits

Each student should have cleared, with P or better grade, at least 190 credits to be eligible for the award of the B.Tech. Degree.

The Departmental Board of Studies (UG-DAC along with external members) discusses and finalizes the exact credits offered for the program for the above components 'a' to 'h', the semester wise distribution among them, as well as the syllabi of all undergraduate courses offered by the department from time to time and recommend the same to the Senate for consideration and approval.

Curriculum in the first two semesters:

In the first two semesters, students of all the B.Tech. programs have the same curriculum.

Every student admitted in the first year is required to register and complete satisfactorily Extra-Academic Activity (EAA) in the first two semesters, which is mandatory. However, the EAA does not carry any credit.

Under EAA, the students can opt for either Games & Sports or NCC or NSS.

Major Project: The Major Project is a 6-credit course and is offered in IV Year First and Second semesters. It carries 2 credits in the First semester and 4 credits in the Second semester. The method of evaluation may be as per the guidelines given under B.Tech Project evaluation.

The minimum number of credits that a student can register in any given semester is 16. The maximum number of credits that can be registered in a semester is 30 inclusive of backlog subjects registered for "Study". It is 34 inclusive of backlog subjects registered for "Study" as well as "Examination"

Admission into M. Tech Programmes

Admissions into M Tech are made on All India basis for all the programs, with reservations as per Government of India norms. The selection criterion for admission into all the M.Tech programs is valid GATE score. Candidates seeking admission into M.Tech in Engineering should have passed BE / B.Tech or equivalent degree in the subject concerned from a recognized University/Institute with First Class and not less than 60% aggregate marks (of all the years) or equivalent CGPA of 6.5/10. In case of SC/ST candidates, 55% aggregate marks (of all the years) or equivalent CGPA of 6.0/10 is the eligibility requirement. Eligibility and other criteria for admissions into M. Tech. courses of the Institute will be reviewed and decided by the Senate from time to time.

M.Tech Programme Structure

An M.Tech program is of 4-semester duration with course work in the first two semesters followed by dissertation work for two semesters. The total course package for M.Tech Degree program typically consists of the following components.

a) Core Courses	≥ 24 Credits
b) Elective Courses	≥ 15 Credits
c) Dissertation	= 26 Credits
d) Mandatory (Seminars- 02, Comprehensive viva-04)	= 06 Credits

The Departmental Board of Studies discusses and finalizes the exact credits offered for the program for the above components 'a' to 'd' in the range of 76-84, the semester-wise distribution of the courses and credits, and the syllabi of all M. Tech. Programs offered by the department from time to time and recommend the same to the Senate for consideration and approval.

In order to qualify for a post graduate degree of the Institute, a student is required to complete all the credits specified in the scheme of instruction for that program as approved by the Senate from time to time.

Admission into M.Sc, M Sc (Tech), MCA and MBA

Admissions are made on All India basis for all the programs, with reservations as per Govt. of India norms. The selection criterion for admission into

i. M.Sc., and M.Sc.(Tech) is based on NITW Entrance Test (NITWET) for 50% of seats and 'JAM' (Joint admission test for M.Sc) for 50% of the seats

- Candidates seeking admission into M.Sc. and M.Sc.(Tech) should have passed BA/B.Sc. or equivalent degree in the subject concerned from a recognized University/Institute with First Class and not less than 60% aggregate marks (of all the years) or an equivalent CGPA of 6.5/10. In case of SC/ST candidates 55% aggregate marks (of all the years) or equivalent CGPA of 6.0/10 is the eligibility requirement.

ii. M.C.A. is based on NITs MCA Entrance Test (NIMCET)

- Candidates seeking admission into M.C.A. should have passed three year degree or equivalent degree from a recognized University/Institute with First Class and not less than 60% aggregate marks (of all the years) or an equivalent CGPA of 6.5/10. In case of SC/ST candidates 55% aggregate marks (of all the years) or equivalent CGPA of 6.0/10 is the eligibility requirement.
- Candidates seeking admission into M.C.A. should have studied Mathematics or related subjects in their 10+2 and in degree.

iii. M.B.A. is based on CAT/ MAT score followed by group discussion and personal interview.

- Candidates seeking admission into M.B.A. should have completed their B. Tech. in any branch of Engineering from a recognized University/Institute with First Class and not less than 60% aggregate marks (of all the years) or equivalent CGPA of 6.5/10. In case of SC/ST candidates, 55% aggregate marks (of all the years) or equivalent CGPA of 6.0/10 is the eligibility requirement.

Admission into Doctor of Philosophy: Ph.D.

The Institute provides facilities for research leading to the degree of Doctor of Philosophy (Ph.D.).

Student Categories: There are seven types of student categories in the Ph.D. Degree Program, five in Full Time and two in Part Time.

Full Time:

a) Full-Time student on Institute Fellowship.

b) Full-Time Government/Semi-Government Fellowship awardees / QIP / FIP (UGC) / CSIR / UGC / DOE / DST / DBT / NBHM etc.

c) Full-Time project fellows/JRF/SRF appointed in R&D projects being carried out in NITW.

d) Full-Time Sponsored student from Industry/R&D organizations.

e) Indian Council for Cultural Relations (ICCR) fellowship awardees (Foreign students).

Part Time:

f) Permanent faculty and other permanent staff of NIT, Warangal

g) External scholars from National Research Laboratories and PSUs which have MoU with NIT Warangal / R & D Organizations (approved by the Senate) having necessary and required research facilities.

NOTE:

1. A student of category (a) will receive the Institute Felloship for a duration of three years, which may be extendable by one more year, based on the recommendations of the Doctoral Scrutiny Committee
2. Student of Category (d) shall be sponsored and financed by the sponsoring organization:
3. A part-time student of category (f) shall produce a sponsorship-cum-clearance certificate from the Director, NITW.
4. A part-time student of category (g) shall produce a no objection certificate from the present employer and also acceptance from a possible supervisor along with biodata from the organization.
5. Change of status from one category to another category or from full-time to part time and vice versa, will be subjected to approval of the senate based on recommendations of DSC and DAC-PG & R.
6. No student can receive scholarship/fellowship from more than one source, either Government or Private.

ELIGIBILITY:

- The prescribed minimum qualification for admission into full time Ph.D. program is M.Tech/ME/M.Phil or equivalent degree, or M.Sc./ M.Sc.(Tech) / MBA / MA or equivalent degree. Admission into Ph.D. program shall be open to candidates who passed the prescribed qualifying examination in first class with a Cumulative Grade Point Average (CGPA) of at least 6.5/10 (6.0/10 in the case of SC/ST candidates), or not less than 60% aggregate marks (55% marks in the case of SC / ST candidates).

- As per AICTE / UGC norms, students of category (a) must have passed GATE / UGC / CSIR exam / DAE-JEST. In case of students with M.Sc. / M.Sc (Tech) / MBA / MA qualification, GATE / UGC - CSIR NET qualification is necessary.
- In case of students of category (d), (e), (f) and (g), GATE / UGCCSIR NET, qualification is relaxed. However, they will be selected through an institute entrance test and/or an interview, which is at the discretion of the department.
- Written test is exempted for a permanent faculty/staff member, who wishes to register for Ph.D. in the department where he/she is working. If the permanent faculty/staff member wishes to work for his Ph.D. in some other department, then the written test and/ or interview are/is necessary.
- Admission under category (g) is open to:
  a) JRFs / SRFs in CSIR / DST / Defence laboratories / Government R&D Organizations
  b) Scientists / Engineers with ME / M.Tech. working in National Research Laboratories and PSUs and having MOU with NIT Warangal / R and D Organizations, who have put-in at least three years of experience and having measurable research output.
  c) Scientists / Engineers with B.Tech. working in Research labs / PSU having MOU with NIT Warangal / R and D organizations with research facilities who have put in at least 6 years of experience and having measurable research output. The selection of candidates under this category is based on interview.

Residential Requirement

- Unless there is explicit permission from the Chairman, Senate to any candidate to stay outside the campus, all candidates admitted into the Ph.D. program will be required to stay in the institute till they complete all assigned work and submit thesis.
- In the case of part-time external candidates from organizations having R&D facilities, the residential requirement may be reduced by at least one semester if he is under self study, or at least two semesters out of which one semester can be at a stretch, if he/she is registering for the course work.
- In case of part-time external candidates with at least 10 years of research experience in R&D Organizations, with the special permission of the DSC and approval of the senate, the residential requirement may be waived completely. Nevertheless, it is mandatory for such candidates also to complete the course work for the prescribed number of credits on self-study mode, following all requirements such as assignments, examinations etc., as prescribed for any regular course at NIT, Warangal. However, it is mandatory that he/she has to deliver atleast one seminar per semester before DSC, which reviews his/her progress.

10. Students

a) Number of candidates admitted into First year B.Tech. during 2020-2021

Sl.No.	Branch	Boys		Girls		Total	
		Indians	Foreign	Indians	Foreign	Indians	Foreign
1	Civil Engineering	89	0	27	1	116	1
2	Electrical & Electronics Engineering	110	6	28	1	138	7
3	Mechanical Engineering	112	11	27	0	139	11
4	Electronics & Communication Engineering	106	17	30	9	136	26
5	Metallurgical and Materials Engineering	61	1	17	0	78	1
6	Chemical Engineering	90	3	24	3	114	6
7	Computer Science & Engineering	111	30	26	4	137	34
8	Bio-Technology	58	2	18	3	76	5
	Total	**737**	**70**	**197**	**21**	**934**	**91**

b) Number of candidates admitted into First year PG courses during 2020-21 : 897

c) Number of candidates admitted into Ph.D. courses during 2020-21 : 208

d) Total Student Strength in the Institute (2020-21)

Under Graduate Students : 3673
Post Graduate Students : 1723
Number of Ph.D. students on Rolls (both full time and part time) : 873
Total Number of Students : **6269**

11. Examinations and Evaluation

B.Tech. Examination and Evaluation Procedure:

As a measure of student's performance, a 7-scale grading system using the following letter grades and corresponding grade points per credit shall be followed:

Letter Grade	S	A	B	C	D	E	P	F
Grade Point	10	9	8	7	6	5	4	0

The norms for the award of the letter grade are as follows:

- No student can be awarded P or better grade without securing at least 35% marks in a course.
- It is also mandatory that the student should secure at least 35% marks in the End Semester examination in the subject for award of P grade or better Grade.
- The Grading shall be based on relative grading system.
- The class average mark (after excluding the marks obtained by students with F grade) should be in mid-range of C grade and other grade (S, A, B, D, E and P) ranges are to be fixed appropriately, so that the distribution of number of students in the pass grades is a "near-normal bell-curve".
- DAC (UG) is authorized to modify the grade ranges for various grades, if it is felt necessary. However, all such modifications are to be recorded and placed before Senate for approval.

In addition, there shall be four transitional grading symbols, which can be used by the examiners to indicate the special position of a student in the subject.

I: for "Incomplete assessment", when the student misses the End-Semester examination on Medical grounds (see rule 12.4 of academic rules and regulations of NIT Warangal).
R: for "Insufficient attendance" in the course (see rule 7.2).
W: for "Temporary withdrawal "from the Institute (see rule 13).
X: for "Debarred" on grounds of indiscipline/malpractices in examinations (see rule 14).

A semester Grade Point Average (SGPA) will be computed for each semester. The SGPA will be calculated as follows:

$$SGPA = \frac{\sum_1^n C_i GP_i}{\sum_1^n C_i}$$

Where C_i=Credit for the course
GP_i=the grade point obtained for the course
n=Number of subjects registered in the Semester.

Starting from I year II Semester a Cumulative Grade Point Average (CGPA) will be computed for every student at the end of every semester. The CGPA would give the Cumulative performance of the student from the first semester up to the end of the semester to which it refers and is calculated as follows.

$$CGPA = \frac{\sum_1^n S_i C_i}{\sum_1^n C_i}$$

Where n= the total number of Semesters under Consideration
C_i = the number of Credits Registered during a Particular Semester
S_i = SGPA of the Semester.

The CGPA, SGPA and the grades obtained in all the subjects in a semester will be communicated to every student at the end of every semester excepting IV year II semester. In its place a consolidated grade sheet (with 190 credits) will be issued. This consolidated grade sheet supersedes all the earlier grade sheets.

Both SGPA and CGPA will be rounded off to the second place of decimal and recorded as such. Whenever these grade point averages are to be used for the purpose of determining the inter-se merit ranking of a group of students, only the rounded off values will be used.

Transitional Grades:

(a) Grade I:
When a student gets I Grade for any subject(s) during a semester, the SGPA of that semester and the CGPA at the end of that semester will be tentatively calculated ignoring this (these) subjects for the semester and CGPA at the end of the semester will be recalculated after taking into account the new grades.

(b) About grades R, W and X:
When a student gets any of these transitional grades in any of subject(s) during a semester, the SGPA of that semester and the CGPA at the end of that semester will be tentatively calculated by taking 'zero point' for these subject(s). After these transitional grades have been converted to appropriate grades, the SGPA for the semester and CGPA at the end of the semester will be recalculated after taking into account the new grades.

(c) About F Grade:
When a student gets 'F' grade in any subject during a semester, the SGPA and the CGPA from that semester onwards will be tentatively calculated, taking only 'zero point' for each such 'F' grade. After the 'F' grade has been substituted by better grades during a subsequent semester, the SGPA and CGPA of all the semesters starting from the earliest semester in which the 'F' grade has been updated will be recomputed and recorded to take this change of grade into account.

M Tech, M. Sc., M. Sc(Tech) and M.C.A. Examination and Evaluation Procedure:

As a measure of student's performance, a 7-scale grading system using the following letter grades and corresponding grade points per credit shall be followed.

Letter Grade	S	A	B	C	D	E	P	F
Grade Point	10	9	8	7	6	5	4	0

- No student can pass without securing at least 40% marks in a course.
- Relative grading system shall be followed

A. In case of bunching, the DAC - PG and R may review the reasons for bunching and modify the ranges, marginally. In all such cases, the modified ranges and the reason should be presented to the Senate for its approval.
B. In addition, there shall be four transitional grading symbols, which can be used by the examiners to indicate the special position of a student in the subject.

I: for "Incomplete assessment", when the student misses the End-Semester examination on Medical grounds (see rule 12.4).
R: for "Insufficient attendance" in the course (see rule 7.2).
W: for "Temporary withdrawal "from the Institute (see rule 13).
X: for "Debarred" on grounds of indiscipline/malpractices in examinations (see rule 14).

A semester Grade Point Average (SGPA) will be computed for each semester. The SGPA will be calculated as follows:

$$SGPA = \frac{\sum_1^n C_i GP_i}{\sum_1^n C_i}$$

Where C_i=Credit for the course
GP_i=the grade point obtained for the course
n=Number of subjects registered in the Semester.

Starting from I year II Semester a Cumulative Grade Point Average (CGPA) will be computed for every student at the end of every semester. The CGPA would give the Cumulative performance of the student from the first semester up to the end of the semester to which it refers and calculated as follows.

$$CGPA = \frac{\sum_1^n S_i C_i}{\sum_1^n C_i}$$

Where n= the total number of Semesters under Consideration
C_i = the number of Credits Registered during a Particular Semester
S_i = SGPA of the Semester.

The CGPA, SGPA and the grades obtained in all the subjects in a semester will be communicated to every student at the end of every semester.

Both SGPA and CGPA will be rounded off to the second place of decimal and recorded as such. Whenever these grade point averages are to be used for the purpose of determining the inter-se merit ranking of a group of students, only the rounded off values will be used.

Transitional Grades:

A. Grade I:

When a student gets I Grade for any subject(s) during a semester, the SGPA of that semester and the CGPA at the end of that semester will be tentatively calculated ignoring this (these) subjects. After these transitional grades have been converted to appropriate grades, the CGPA at the end of the semester will be recalculated after taking into account the new grades.

B. About F Grade:

When a student gets 'F' grade in any subject during a semester, the SGPA and the CGPA from that semester onwards will be tentatively calculated, taking only 'zero point' for each such 'F' grade. After the 'F' grade has been substituted by better grades during a subsequent semester, the SGPA and CGPA of all the semesters starting from the earliest semester in which the 'F' grade has been updated will be recomputed and recorded to take this change of grade into account.

C. About grades R, W and X:

When a student gets any of these transitional grades in any of subject(s) during a semester, the SGPA of that semester and the CGPA at the end of that semester will be tentatively calculated by taking 'zero point' for these subject(s). After these transitional grades have been converted to appropriate grades, the SGPA for the semester and CGPA at the end of the semester will be recalculated after taking into account the new grades.

12. Degrees Awarded Till June, 2021

Since Inception

A) B.Tech.

Civil Engineering	**3164**
Electrical Engineering	**3248**
Mechanical Engineering	**3918**
Electronics & Communication Engineering	**3088**
Metallurgical and Materials Engineering	**1497**
Chemical Engineering	**2160**
Computer Science & Engineering	**2709**
Biotechnology	**725**
TOTAL	**20509**

B) M.Tech. / M.Sc. / M.Sc. (Tech) / M.C.A. / M.B.A.

Civil Engineering	**3177**
Electrical Engineering	**1330**
Mechanical Engineering	**2158**
Electronics & Communication Engineering	**1218**
Metallurgical and Materials Engineering	**470**
Chemical Engineering	**441**
Computer Science & Engineering	**762**
Mathematics	**734**
Physics	**647**
Chemistry	**827**
Master of Computer Application	**1044**
Master of Business Administration	**720**
TOTAL	**13528**

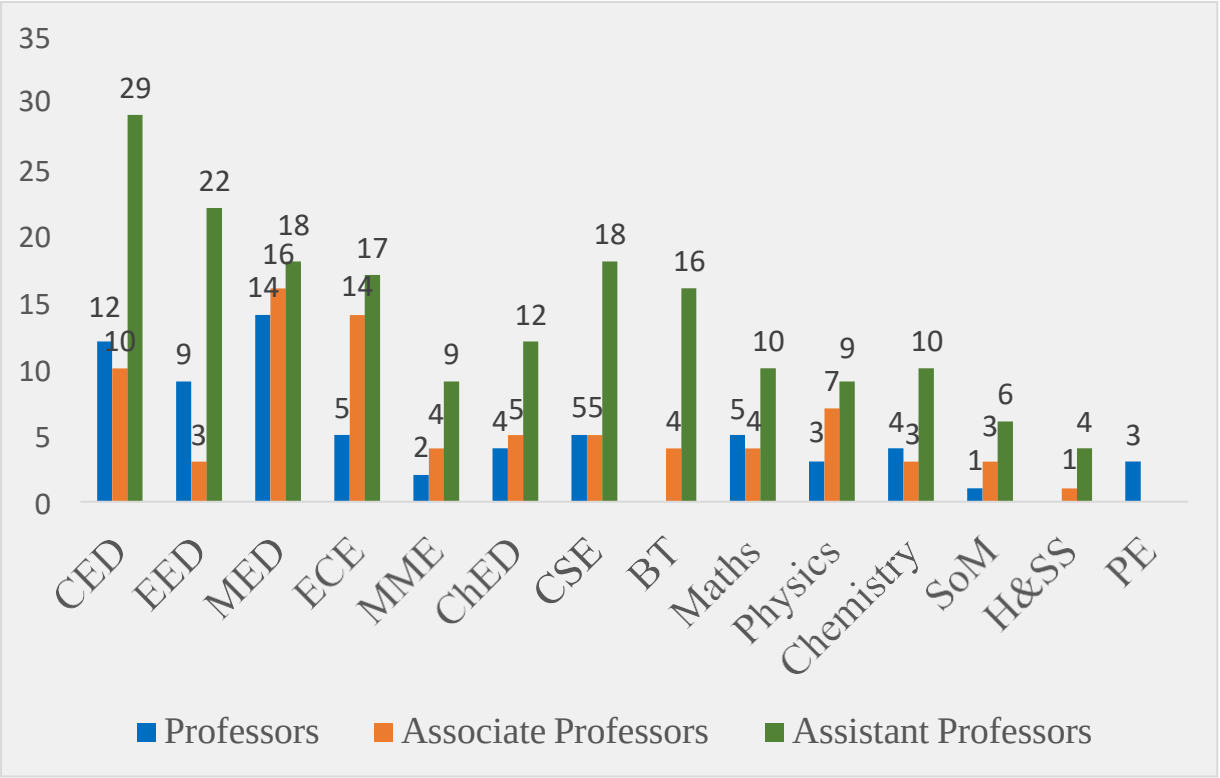
C) Ph.D (Doctor of Philosophy)

Civil Engineering	**141**
Electrical Engineering	**82**
Mechanical Engineering	**165**
Electronics & Communication Engineering	**59**
Metallurgical and Materials Engineering	**32**
Chemical Engineering	**60**
Computer Science & Engineering	**30**
Biotechnology	**17**
Mathematics	**124**
Physics	**53**
Chemistry	**146**
School of Management	**14**
Humanities &Social Sciences	**17**
Physical Education	**02**
Total	**942**

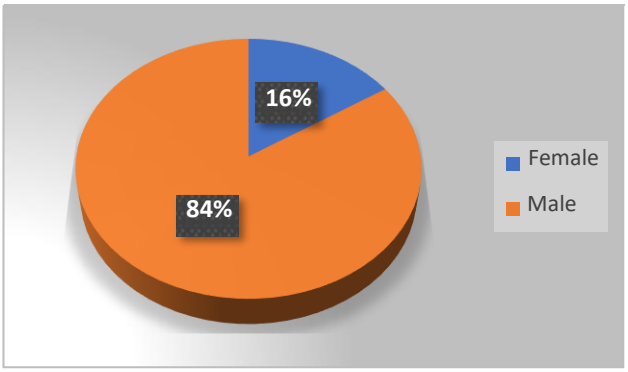
Faculty Details

Total Faculty on Rolls: 324

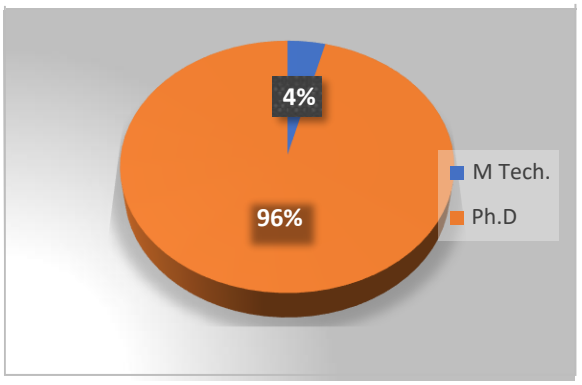
Department wise faculty distribution:



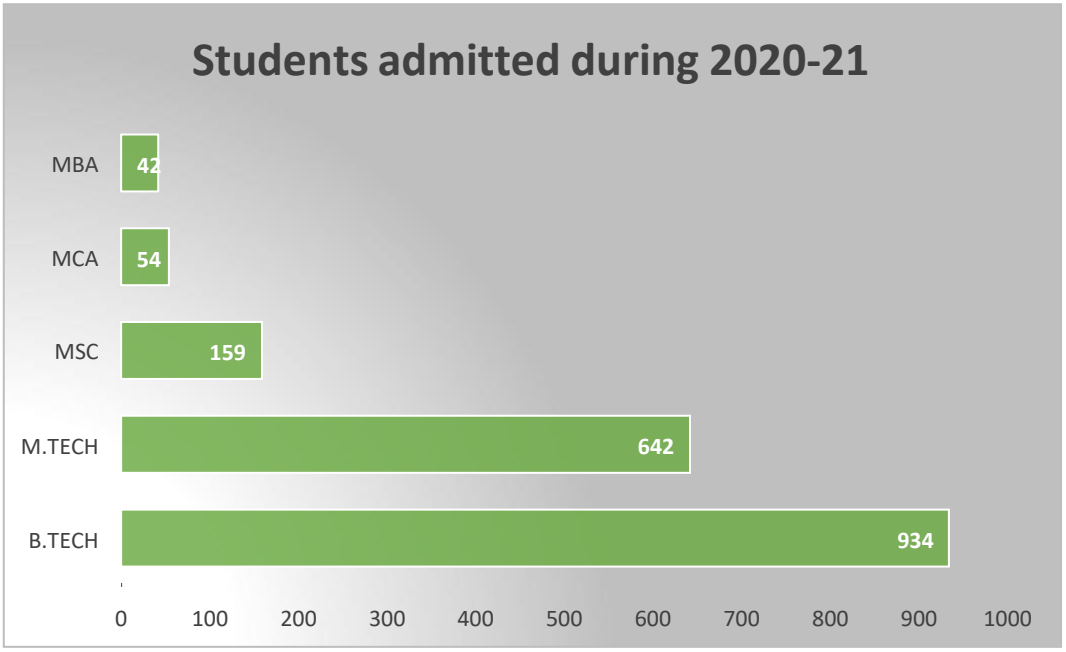
Faculty Details- Gender Wise

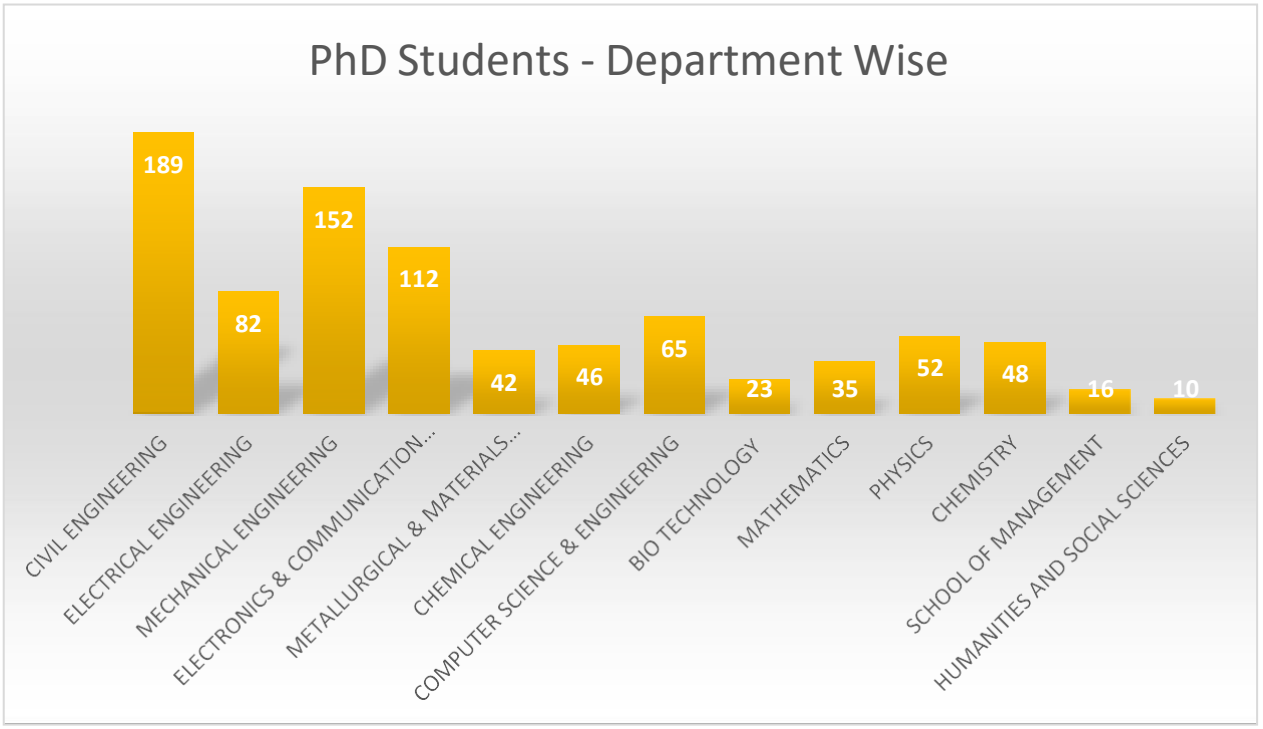


Faculty Details: Qualification wise



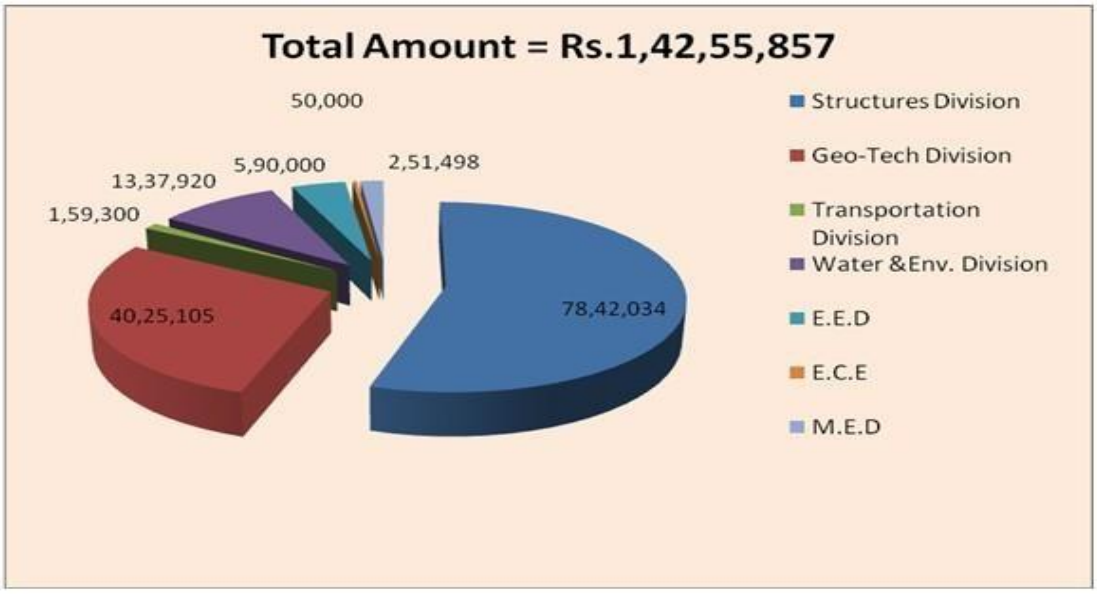
Students admitted during 2020-21



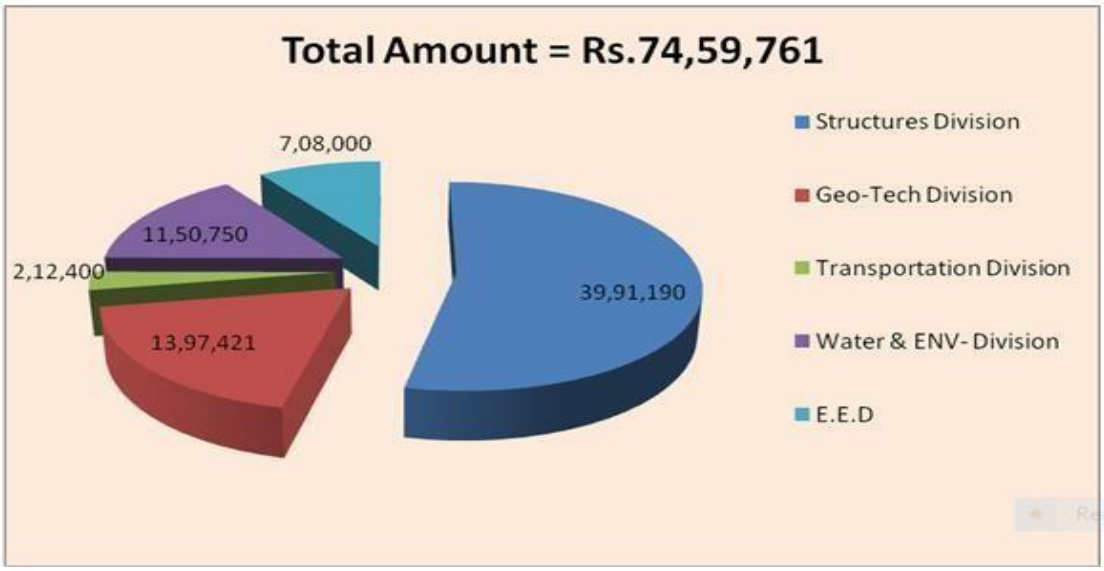


Research and Consultancy
Revenue Generated through Consultancy (SRIC)

March 2020 – April 2021



March 2021 – September 2021



* Total Grant Received from External Projects for the Financial Year 2021: Rs, 8,28,34,602=00

Placement Report 2020-2021
Centre for Career Planning and Development(CCPD)



Sl. No.	Branch	Total Students	Total Students (Eligible*)	No. of students Placed	Max. CTC (LPA)	Avg. CTC (LPA)
1.	Civil Engineering	99	76	58	15.0	8
2.	Electrical & Electronics Engineering	138	108	94	51.0	15.38
3.	Mechanical Engineering	139	114	92	25.8	9.02
4.	Electronics & Communication Engineering	140	115	105	43.0	14.49
5.	Metallurgical & Materials Engineering	63	50	44	15	8.63
6.	Chemical Engineering	103	86	74	46.0	9.87
7.	Computer Science & Engineering	138	121	118	43.0	20.02
8.	Bio-Technology	55	39	33	13.7	8.75

*Includes students with CGPA>=6.5 and who participated in all Campus Placement Drives. If a Company has offered a job to a student having CGPA<6.5, it is included in both placed as well as registered counts. Students CGPA considered for eligibility is whatever he/she acquired up to the date of commencement of placement session.

PG Placements

Sl. No.	Course	Branch	Total Students	Total Students (Eligible*)	No. of students Placed	Max. CTC (LPA)	Min. CTC (LPA)	Avg. CTC (LPA)
1	M.Tech. (Civil)	Water Resource Engineering	26	26	2	7	5.25	6.12
2		Environmental Engineering	28	28	2	6	3.5	4.75
3		Engineering Structures	31	29	12	7	3	5.75
4		Geo-Tech. Engineering	26	24	1	5.25	5.25	5.25
5		Transportation Engineering	31	30	5	6.5	5.25	5.81
6		Construction Technology & Management	31	31	8	8.46	5.25	6.8
7		Remote Sensing& GIS	16	15	4	6.5	4.5	5.4
8	M.Tech (EEE)	Power Systems Engineering	40	33	11	14.28	5	8.35
9		Power Electronics and Drives	39	33	15	11.5	3.6	6.65
10		Thermal Engineering	24	20	7	8	3.6	5.07
11		Manufacturing Engineering	18	16	2	7.5	5.5	6.5

12	M.Tech. (Mech.)	Computer Integrated Manufacturing	17	15	4	6.5	3.6	4.8
13		Machine Design (formerly PDD)	18	17	6	9	5	6.66
14		Automobile Engineering	16	14	8	13.51	5.5	7.93
15		Materials & Systems Engineering Design	13	13	4	8	3.6	6.02
16		Additive Manufacturing	10	10	2	11.5	8	9.75
17	M.Tech (ECE)	Electronic Instrumentation	24	22	11	31.05	8.5	16.5
18		VLSI SystemDesign	25	22	18	31.05	8.5	17.27
19		Advanced Communication System	21	21	9	31.05	6.5	15.33
20	M. Tech. (MME)	Industrial Metallurgy	13	12	1	6	6	6
21		Material Technology	16	15	3	8	6.25	6.83
22	M.Tech. (Ch.E)	Chemical Engineering	18	17	5	6.5	4.4	5.24
23		Process Control	13	11	1	8	8	8
24	M.Tech. (CS&E)	Computer Science& Engineering	21	19	17	31.05	9.05	18.69
25		CS & Information Security	23	20	19	35	7.65	18.2
26	M.C.A.	Master of Computer Applications	45	36	33	22.26	6	10.55
27	M.B.A.	Master of Business Administration	40	34	7	12.53	3.6	6.6
28	M.Sc.(Math)	Applied Mathematics	23	20	1	10.5	10.5	10.5
29		Mathematics & Scientific Computing	27	22	7	11	5.5	7.59
30	M.Sc. (Tech.)	Engineering Physics	35	29	5	7.5	5	5.8
31	M.Sc.(Chem.)	Analytical Chemistry (MMCA)	16	14	5	7	3	4.8
32		Organic Chemistry (DDPP)	26	23	3	9	7.5	8

Activities by CCPD

1. Maintains an updated data base of over 800 companies to help each student weigh their options when Choosing a company
2. Takes feedback from the employers and by sharing with departments and to frame the course relevant to the industry
3. Nurtures and sustains industry- institute interaction through industrial visits, in-plant training, internships to bridge the gap between industry and academia
4. Organizes and coordinates campus placements activities to provide employment opportunity to every student
5. Organizes career counselling sessions and making the student aware of his potential thereby drives him towards his goal.



Central Library





Dr. A. Venu Gopal
Chairman, LAC



Dr. K. Veeranjaneyulu
Librarian



Sri. G. Balakrishna
Assistant Librarian

INTRODUCTION:

The Central Library at NIT Warangal established along with the Institute's inception, is located adjacent to the administrative block. The library is housed with a plinth area of 4000 Sq. Mtrs (Ground + 2 floors), which includes stack rooms (for the textbooks), reading halls (reference section), current journals/periodicals area (print version), newspaper section, digital library, book banks, and a separate reference area (TEQIP hall). The Central Library supports the regular academic activities of the Institute (teaching, learning and research) by providing necessary books for the students, faculty and non-faculty of the Institute. It also disseminates information according to the requirement of the users of the Institute.

MEMBERSHIP:

Every student (who gets admission to the Institute), Faculty members and regular staff (non-faculty, technical and administrative) of the Institute are the members of the Central Library. They are eligible for lending books, use of the digital library facilities.

COLLECTION:

The Central Library has a good collection of old and new books. The total cost of the books amounts to Rs. 10 Crores.

- Books (No. of Volumes) : 1,85,218
- Books (No. of Titles) : 32,288
- No. of e-Books 235
- No. of e-Journals 7845
- No. of Print Journals 22
- No. of Books in Book Bank : 30,445

SERVICES:

- Lending of Books
- OPAC (Online Public Access Catalogue)
- Remote Access Service through MyLOFT App
- Photocopying and Printing Service
- Document Delivery Service

Prof. N.V. Ramana Rao, Director, NITW has inaugurated the following new services initiated by the Central Library on 23-10-2020 for the benefit of Faculty and Students.

OPAC (Online Public Access Catalogue):

The Central Library has implemented KOHA - Integrated Library Management Software to automate library functions. The Online Public Access Catalogue (OPAC) was available only over the Intranet, through which users can browse the catalogue of print resources available in the Central Library at NIT Campus, Warangal. An open-source link to e-books was also provided in this OPAC.

During the prevailing Covid-19 situation, students and faculty could not access open e-resource links provided through the OPAC. Hence, Web-OPAC is implemented using cloud computing to overcome the access problem. Henceforth, the faculty and students can access the open-source link of e-books from anywhere and anytime by using the following link.

http://nitwopac.in:7071/

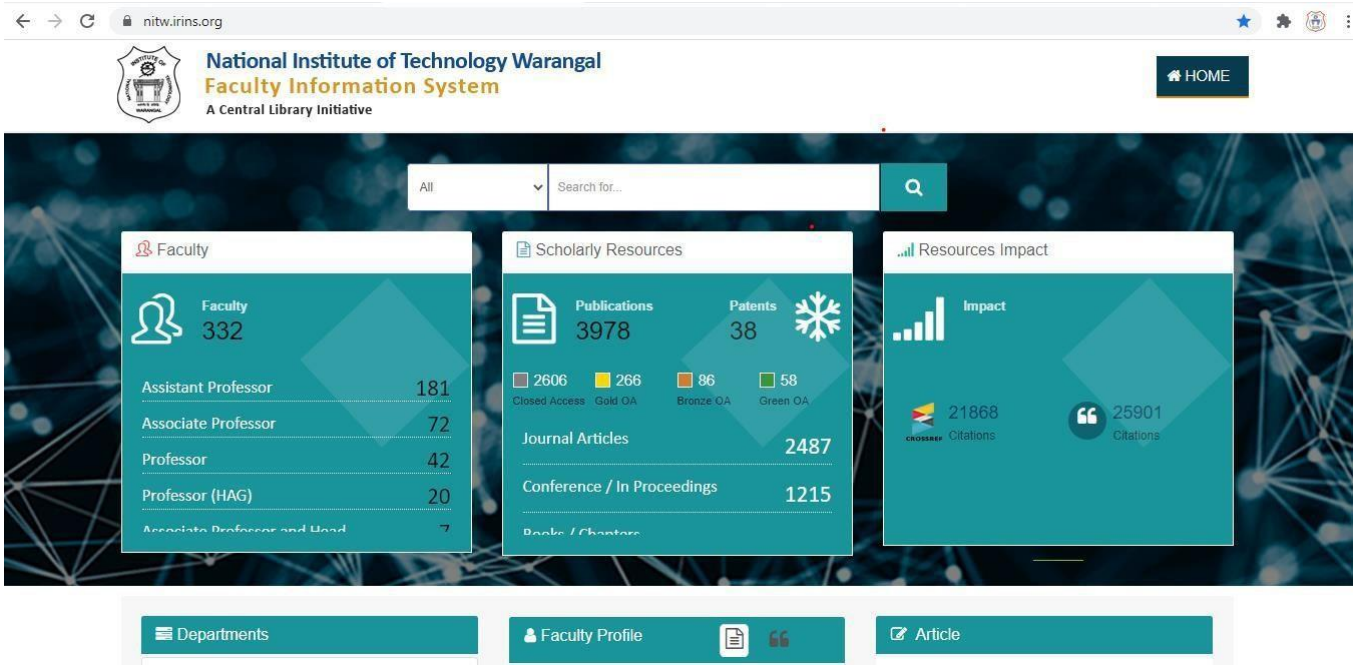


NITW- FACULTY INFORMATION SYSTEM: A Central Library Initiative:

The Central Library has implemented a new "Faculty Information System" under the Indian Research Information Network System (IRINS) to showcase the academic and research activities of the institute faculty members and provide an opportunity to create a scholarly research network.

The NITW- Indian Research Information Network System (IRINS) will integrate the existing research management system such as HR system, course management, grant management system, institutional repository, Open and commercial citation databases, scholarly publishers, etc. This will be integrated with the academic identities such as ORCID ID, Scopus ID, Research ID, Microsoft Academic ID, and Google Scholar ID for ingesting the scholarly publication from various sources. This Faculty Information System can become the source for the NIRF, NAC and other international raking systems. Everyone can access the Faculty Information System through the following link:

https://nitw.irins.org/



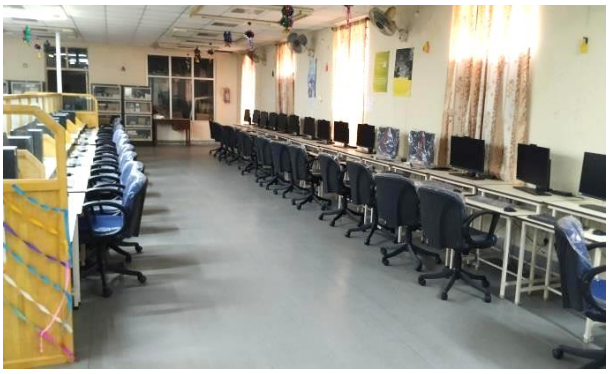




Inauguration of Faculty Information system, Web OPAC and State-of-the-Art Digital Library

State-of-the-Art Digital Library: Central Library acquired 20 new all-in-one computers with higher configuration (16 GB RAM and 1 TB HDD) for Digital Library.





E-JOURNALS:

The Central Library of NIT Warangal is a member of the e-shodhsindhu consortium and subscribes to the online journals through the e-shodhsindhu consortium and from the institute funds. The details of the journals subscribed to by NIT Warangal are as follow.

NIT, Warangal subscribed e-journals databases

Sl.No.	ame of the Database / Publishers	. of Journals
1.	TM Standards + Digital Library	Database
2.	Eevier - Science Direct	79
3.	Emrald e-Shodhsindhu	312
4.	Royal Society of Chemistry	46
5.	Materials Science & Engineering Collection	78
6.	Finder Scholar	Database
7.	Springer Link	1714
8.	Taylor & Francis	349
9.	American Chemical Society	64
10.	IEEE	558
	tal	**3200**

E-Resources Provided by INFLIBNET through ESS Consortium

Sl.No.	Name of the Database / Publishers	No. of Journals
1.	ACM Digital Library	1153
2.	ASCE Journals Online	36
3.	ASME Journals Online	29
4.	Institute for Studies in Industrial Development (ISID)	Abstract Database
5.	JGate Plus (JCCC)	Abstract Database
6.	JSTOR	3165
7.	Oxford University Press	262
8.	Web of Science	Database
	Total	**4645**

PHOTOCOPYING AND PRINTING SERVICE:

Central Library, NITW provides photocopying and online printing facility to students, research scholars and faculty during working days on payment basis @ 0.50/- (Fifty paisa only) per page for Scientific articles and extracts from books NITW Central Library.

DOCUMENT DELIVERY SERVICE:

Document Delivery Service through which any library member can send a request to the library to obtain photocopies of journal articles not available in our central library. This service is provided free of charge to all library members of NIT Warangal for academic and research purposes only. To avail of this service, library users are requested to send an email with full bibliographic details of the documents (not more than two articles at a time) to cenlib@nitw.ac.in

BEST PRACTICES:

The Central Library, NIT Warangal follows the best practices such as

- Circulation of the information brochure to the newly joined students, faculty, and staff.

- Conducting user orientation programs to the newly joined faculty and students about the facilities available in the Central Library.

OUTREACH PROGRAMMES:

As an outreach activity on behalf of the Institute and the Teaching Learning Centre, the Central Library conducts orientation programs to the faculty of the Degree and PG colleges of the Telangana State and the other states. Also, the Central Library allows using the electronic content (e-journals and e-books) to the resident participants of various faculty development programs and GIAN programs conducted by the Institute.

STACK – ROOMS:

- There are three stack rooms (with adequate seating arrangements) on the ground floor, of which two rooms are stacked with textbooks and the other with back volumes of journals.
- According to the Dewey Decimal Classification Scheme, the books and back volumes of journals are arranged on the shelves along with the subject-guides.
- The Library follows the Open Access System. All the titles of the books are made available through LAN using Online Public Access Catalog.

REFERENCE SECTION:

The section contains reference books such as Encyclopedias, Dictionaries, Directories, Handbooks, Bibliographies, Atlases, and Databases from different publishers. These are to be referred within the Library premises and not for lending.

TEXTBOOKS:

Multiple copies of each prescribed textbook (as per the academic curriculum) and other recommended books are kept in the textbook collection. These are to be referred to on the Library premises only.

A separate reading hall (funded by TEQIP-I) for reference and textbooks is provided with a seating capacity of 100 members.

PRINT JOURNALS and MAGAZINE SECTION:

The Library receives about 22 Print journals and magazines. All the current periodicals are displayed on the periodical racks in the reading hall with a seating capacity of 100.

LIBRARY ADVISORY COMMITTEE:

The library advisory committee (LAC) comprises a Dean Academic as Chairman, faculty members from each department as members and Librarian as Member Secretary. The LAC is the supreme body to monitor the functioning of the library. The LAC is the decision-making body for the policies and purchases of the library in accord with the Institute administration. It meets from

time to time to lay down policies and to review working conditions for the smooth functioning of the Library.

FACULTY DEVELOPMENT PROGRAMME:

1. A Five-Day Online Faculty Development Programme on "Modern Digital Library Science & Technologies for Teaching, Learning and Research (MDLSTTLR – 2021)" organized from 4th to 8th January 2021 organized by the Central Library, NIT Warangal in association with the Teaching Learning Centre, NIT Warangal.

WEBINARS:

1. Central Library, National Institute of Technology, Warangal, has organized a Webinar on "Web of Science: Discovery starts here!" on 16th October 2020 from 11:00 a.m. to 1:00 p.m. in collaboration with Clarivate for the benefit of Faculty, P.G. and Ph.D. Students.
2. Central Library, National Institute of Technology Warangal has organized a Webinar on "Elsevier: Improve scholarly visibility and impact of NITW" on 22nd February 2021 at 3.00 p.m. in collaboration with Elsevier for the benefit of Faculty, Research Scholars and P.G. Students.

RECOGNITION OF EXCELLENCE 2020:

Central Library, NITW received the "Recognition of Excellence 2020" award from Taylor & Francis Group for adapting and contributing to the growing needs of online education in India.

LIFE TIME ACHIEVEMENT AWARD:

Dr. K. Veeranjaneyulu, Librarian, National Institute of Technology, Warangal, has been honored with the prestigious "Life Time Achievement Award" by the Association of Agricultural Librarians and Documentalists of India (AALDI), one of the oldest professional societies in India, during the inaugural programme of Golden Jubilee Celebrations and International Conference of Agricultural Librarians and User's Community (ICALUC-2021) on 'Management of Knowledge Resource Centres: Trends, Challenges and Opportunities' organized on 25th February 2021 held at University of Agricultural Sciences. He was selected for this award "in recognition of his three decades of dedicated service to agricultural librarianship, leadership quality, commitment and service with the highest standard of excellence". Dr. S. Ayyappan, Chancellor, Central Agricultural University, Imphal and Chairman, Karnataka State Science Academy, honored him with the award in the presence of Dr. S. Rajendra Prasad, Vice-Chancellor of UAS.

INVITED TALK AND WEBINAR DELIVERED:

Dr. K. Veeranjaneyulu, Librarian, National Institute of Technology, Warangal has delivered more than twenty-five Invited talks and Webinars on various subjects during the period of the report.

INVITED TALK AND WEBINAR DELIVERED:

Dr. K. Veeranjaneyulu, Librarian, National Institute of Technology, Warangal has edited two books; published two research papers in Scopus indexed, national and international journals and presented one of paper in international conference.

Edited Books:

Veeranjaneyulu, K., Rathinasabapathy, G., Jadhav, U. S., Kandpal, K. N., Tandel, Kailash D. (2021) "Dynamics of Agricultural Library and Information Services", Agri-Biovet Press, New Delhi (ISBN: 978-93-84502-96-6)

Rathinasabapathy, G., **Veeranjaneyulu, K.**, Srinivasa, V. (2021) "Management of Knowledge Resource Centres in the Networked Digital Environment: Trends, challenges and Opportunities", BS Publications, Hyderabad (ISBN: 978-93-90211-65-4)

OPEN ACCESS RESOURCES:

Central Library collected Open access e-books and e-journals each academic department-wise and communicated to the Heads of the departments for the benefit of students and faculty. Open access resources links uploaded in the Library OPAC. Total No. of E-Books is 13,618 and E-Journals are 5,357.

PROCUREMENT OF E-BOOKS:

Central Library procured 146 e-books titles for the financial year 2020-21 as per the recommendations of the Heads of Departments. The e-books access links are communicated to all the faculty members. Further, it informs that the e-books can access from MyLOFT App anywhere and anytime.

INSTITUTIONAL REPOSITORY:

The Central Library NIT Warangal has created the NITW Institutional Repository to showcase, organize, share, and preserve the scholarly output of the National Institutes of Technology Warangal. The Repository is designed to facilitate scholarly communication by providing access to the knowledge resources created by NITW and preserving the same for future generations of scholars. The Central Library is proud to host and maintain the repository and facilitate access to the knowledge resources of the NITW community. The Institutional Repository is Available on Intranet through the link.

http://ir.library.nitw.ac.in:8080/jspui/

NITW – ANNUAL RESEARCH DIGEST OF PH. D THESES 2019-20:

The Central Library brings the "Annual Research Digest of Ph. D Theses of NITW" for the benefit of Students, Research Scholars, and Faculty to know the Doctoral Research work completed in the Institute and identify the research problems for their research work.

NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL
TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME PHASE III

About NPIU

National Project Implementation Unit (NPIU) is a unit of Government of India, established in August 1990 for coordination, facilitation, monitoring and to provide guidance to the States/Institutions in all aspects of the World Bank assisted projects. During 1991 to 2007, NPIU implemented three TechnicianEducation Projects of Government of India assisted by the World Bank, which helped to strengthen and upgrade the Technical Education System and benefited 552 Polytechnics in 27 States including UTs of Andaman & Nicobar Island and Pondicherry. These three Projects have been rated as "Highly Satisfactory" on Project Management and implementation, whichis the highest rating, provided by theWorld Bank. Success of three TechnicalEducation Projects encouraged the Govt. ofIndia to seek similar financial assistance from the World Bank for a systemic transformation of the Technical Education system as a whole with special focus on overall Quality Improvement in EngineeringEducation.

About TEQIP III

On the basis of excellent performance by NIT Warangal in TEQIP-I and TEQIP-II phases, the MHRD through NPIU has sanctioned theTEQIP-III project to NIT Warangal in the year 2017-18 with a budget outlay of Rs.7.0 Crores. This Project will further improve the quality of Post-Graduate teaching, catalyze the R& D activities, promote the Faculty and Staff development and provide academic support for the students. The Project Implementation and Monitoring Committee of TEQIP-III at NITW has prepared a procurement plan and obtained itsapproval by the NPIU. The plan is now put into operation. A series of Continuing Education Programs, Workshops, Seminars andConferences spreading across the widespectrum of Engineering Disciplines are initiated to disseminate the knowledge in the stateof art technologies and build professional competency in the students and faculty. NIT Warangal has established twinning arrangements with Chaibasa Engineering College, Chaibasa, Jharkhand State in order to build their capacity and improve the performance. Our Institute has got very goodgrade based on the Monitoring and Project output Performances.



Prof. A. Venu Vinod
Coordinator,
TEQIP-III,Professor,
Chemical Engineering Department

1. **Innovation and startups:**

i.) Entrepreneurship and Design Thinking Workshop for students was conducted in the month of February 2021, followed by a competition.

ii.) Open source and product development workshop was conducted in February 2021, followed by a competition for students.

iii.) Block Chain and AI workshop was conducted in February 2021, followed by a competition for students.

iv.) Ideathon week was organized in March 2021, to provide a platform for students to present their ideas and develop their entrepreneurial skills, finding business viability and prototyping their products.

2. **Support for Students (UG, PG, Ph.D.) under Research and Development:**

About 07 students benefited in purchase of Chemicals, Spares and consumables in their student research project.

3. **Light Board Setup:**

A Glass Light board can be used for recording of chalk and talk kind of video lecture as part of asynchronous mode of delivery of classes. So, in this regard TEQIP has taken initiative and sponsored a project for implement of Light board and its studio setup in institute.

Glass Lightboard: The lightboard is a piece of ultra-clear glass that is edge light with LED strip lights. The presenter writes on the lightboard with a neon marker.

The light bounces around inside the glass until the light hits the neon marker writing and then exits the glass through the marker. This makes the writing really pop out against the black backdrop. The lightboard can be used to teach concepts that require formulas, calculations, diagrams and not too much text. Lightboard videos are very quick to make with minimal post production. So, they are also helpful when a lot of videos need to be made in a short period of time. Students would prefer learning from light board videos because the experience is very much similar to the instructors teaching using the whiteboard. But it is even better because the students get to see the teacher's face.

Studio setup for Glass Lightboard: the studio required for the usage of Glass Lightboard which can be used for recording of chalk and talk kind of video lecture as part of asynchronous mode of delivery of classes.

4. **NPIU Sponsored ERP Implementation:**

NPIU/MHRD in technical collaboration with IIT Kharagpur is developing ERP software – SMILE (Software for Managing Institute of Learning and Education) for NIT Warangal. This project is being sponsored by TEQIP/ NPIU.

5. **Improvement of sanitation conditions as part of EMP**: Sanitation is an important aspect of Environment Management Plan. In order to maintain good sanitation conditions in the campus. Napkin vending machine in Girls common room and Incinerator for managing the used napkins were provided in the Ladies Hostel.

6. Activities:

(i.) CEP's/Workshops/Conferences conducted from 01.07.2020 to 30.06.2021 under TEQIP - III

Department Name	Continue Education Program	International Conference	National Conference	Symposium	Workshop	Grand Total
Civil Engineering Department					3	3
Electrical and Electronics Engg. Dept.					1	1
Mechanical Engineering Dept.					1	1
Electronics and Communication Dept.					2	2
Computer Science and Engg. Dept.					1	1
Dean SW					2	2
TEQIP-III		1				1
Grand Total		**1**			**10**	**11**

Induction Program conducted under TEQIP – III from 02.12.2020 to 07.12.2020

Sl. No	No of Days	Type of Program	From Date	To Date	Month	Tittle of the Program	Coordinator
1	06	Induction Program	02.12.2020	07.12.2020	Dec 20	Induction Program for New Entrants of I B.Tech 2020 Batch	Prof. J V Ramana Murthy

1. Expert Lecture by **Shri K. Ramalingam**, Director, SVL Engineering Services Pvt Ltd., delivered expert lecture on "An Outlook and Brief Walk Through Some Incidents Emphasizing the Importance of PSM" on 07th November, 2020.

2. Expert Guest lecture by **Dr. MP Raju,** MD LASA, New Delhi on "Planning for Urban and Regional Transport Systems – Insights and Way Forward" on 28th October 2020.

3. Expert Guest lecture by **Dr. TS Reddy**, Team Leader LASA, Hyderabad on "Road Safety Audit for Improved Safety on Roads" on 04th November 2020.

4. Expert Guest lecture by **Sri PPK Murthy,** Director (projects) Metro, Mumbai on "Infrastructure Development Challenges in India – Role of Transportation Engineers and Planners" on 11th November 2020.

5. Expert Guest lecture by **Sri MP Naidu**, Former Project Director, L&T Metro Rail, Hyderabad on "Mass Rapid Transport System – A Case Study of Hyderabad Metro" on 18th November 2020.

6. Expert Guest Lecture by **Sri RK Jha,** Senior Advisor and Project Director (Corporate Projects), CIDCO, Navi Mumbai on "Concept to Development of Large Transportation Projects: A Case study of Mumbai Trans Harbour Link" on 25th November 2020.

7. Expert Guest Lecture by **Sri DB Srinivas** Associate Vice President Transportation Planning, DMITS, New Delhi on "Socio-Economic cost of Road accidents in India" on 02nd December 2020.

8. Expert Guest Lecture by **Sri M Kishore Kumar** Director Aarvee Associates, Hyderabad on "Prevention of Clams & Disputes in Highway Contracts" on 09th December 2020.

9. Expert Guest Lecture by **Sri KV Ganesh Babu**, DMITS, New Delhi on "Planning and Design of Greenfield Cities: Case Studies of GIFT and Amaravati" on 16th December 2021.

Major Equipment Procured under TEQIP III

Item	Department	Month/Year	Amount in Rs.
Atena Software	Civil Engineering Dept.	Feb 2021	11,97,000.00
Fume Hood for laboratory with cupboard	Chemical Engineering Dept.	March 2021	1,01,000.00
Microwave Extraction System	Chemical Engineering Dept.	March 2021	4,72,500.00
Computers (All in one PC)	Library	March 2021	15,09,960.00
Heavy Duty color printer	TEQIP	March 2021	2,26,200.00
COMSOL Multiphysics Software	Chemical Engineering Dept.	March 2021	12,68,190.00
Rack Server	Institute MIS	March 2021	8,59,200.00



Fume Hood


Microwave Extraction


Rack Server

Centre of Innovation and Incubation





Dr.P.Srihari Rao

Faculty Advisor
Center of Innovation and Incubation

The Center of Innovation and Incubation (CII) is a G+2 building, with a floor space of approx 30,000 sq ft. The mission of the center is to "promote innovations leading to new processes, products, design and technologies in collaboration with industry and thereby facilitate application of knowledge to society". The following are the objectives of the center

- To promote greater industry - academic interaction, by inviting industries to set up their research labs at this center and carry out their research projects using the talend on the campus.
- To encourage the first-generation entrepreneurs desirous of R&D partnership with NITW or otherwise to establish their research labs at this centre.
- To promote innovation projects of B.Tech and M.Tech students by providing appropriate facilities, infrastructure and financial assistance as per the norms of the institute.
- To facilitate the "on campus interaction" between the scientists of industries and faculty and students of NITW in order to enable orientation of R&D activities of NITW to potential needs of industry.

NIT Warangal being a premier technical institution plays a vital role in the process of technology entrepreneurship by offering a variety of services through CII in the area of startup creation, business incubation, easy access to capital and knowledge access with new and innovative ideas. Moreover, emphasis has also been given by the institute towards entrepreneurial focused education by providing entrepreneurship development and venture creation as elective courses for developing entrepreneurial competencies. Further, various support mechanisms were also provided in the form of structured mentorship programs, short training to build the confidence of students to convert ideas to innovation and startup establishment. Incubation facilities are also open for local startups in and around as social responsibility at minimal expenses, thereby contributing significantly in promoting the entrepreneurship culture in institutes and within the country. The CII facilitates the following at preset

- Startup Cell
- Innovation Garage
- Industry R&D Labs
- EPICS Projects & TEP
- IPR Cell
- MoUs (National)

Startups

Student startups are current requirements and provide a great opportunity in market expansion and job creation. Startup policy of NITW targets to nurture and encourage entrepreneurship among students and young faculty to benefit from GOIs 'Startup India' and 'Make in India'

programs. Students are encouraged to participate in idea generation in prototype events and the funding is provided to procure the hardware required through TEQIP-III.

Startup Name	Founder/CEO
Flowhrex Technologies	• Mr. Abhijeet Kulkarni • Mr. Amol Raykar
Aufenbach	• Mr. Mohamed Azman • Mr. Jithu G Panicker
Cusmat	• Mr. Abhinav Ayan • Mr. Soumya R. Harichandan
Dhoor Davakhana	• Dr. M. Satish, ECE Dept.
VaSuDa GeoAnalytics	• Dr. K. Venkat Reddy, Civil Dept • Ms. Sunitha
GBit Studios LLP	• Mr. Aniruddha Joshi
Skylark Labs	• Dr. Amarjot Singh
Sigma Store	• Mr. Vaibhav Goyal • Ms. Nikita Singh • Mr. Anmol Sahu
Kalam Books	• Mr. Kalp Shobhana • Mr. Anushrestha Chourey
Ayurdeep Healthcare Solutions	• Ms. B. Deepthi
Bugclaim	• Aakash Kumar • Arpit Goyal • Ankush Mittal
Hacktric	• Ms. Manhi Panwar • Ms. Ashiqa Rahman
Epick Bikes	• Mr. Sai Aaradh Vemula • Mr. L. N. V. Ravi Teja • Mr. Bharath Goud

	• Mr. Rahul Reddy Edla • Mr. Vamsi Krishna Reddy Sabbella • Mr. Anand B Tumuluri
City 360	• Mr. Devdutt Chavda
Archphilic	• Mr. Shubham Saxena
Bukket.cloud	• Mr. Himanshu
Opaqure	• Mr. Gnaneshwar Sampathirao
Open Innovation Platform	• Mr. Avinash Pulugurtha
Design and Marketing Collective	• Mr. Avinash Pulugurtha
Ideate	• Mr. Rithik Marudappa • Mr. Lakshya Jalan
YOWL	• Mr. Sushyanth Sridhar
AI Psychometric Test	• Ms. M.Keerthi • Mr. Tushar Rathore • Mr. Pratik Kaul

Innovation Garage

The CII provides a platform for the students to carry out innovative projects through Innovation Garage (IG). Innovation Garage is a multidisciplinary 24x7 makerspace for students to work on innovative projects and develop prototypes. IG organizes activities all year long for promotion of innovation and maker culture on campus including Makerswave, Ideathon, Case Study Competition, Design Thinking Workshop etc. to name a few. We have several student teams working on projects with societal impact in the field of AI, Blockchain, Robotics and Cybersecurity.

Mechanical Vehicle Teams at CII

CII provides space and equipment to the mechanicals and sport cars teams to design and manufacture their vehicles.

- Team Ronin Racing (Electric F1)
- Team Spardhak (BAJA)
- Team Thunderbolt (Efficycle)
- Team MecXaushters (Formula One)
- Team Mechaholics (Quad Bike)

- Team Tejas (Electric Go-Kart)
- Team Blitzkrieg (Go-Kart)

Events at CII

CII conducts events all year around with engagement of over 4000+ students. Here are a glimpse of some of the events, workshops, guest lectures and makeathons.

S. No.	Event	Date(s)	Participation
1	Summer AI Program	12 April - 20 May 2020	160+
2	Git and Open Source Workshop	27 September 2020	160+
3	Devathon	1 - 3 October 2020	120+
4	Webinar on AI and ML in cognitive games	11 October 2020	95+
5	Flutter Workshop for App Development	23 October 2020	110+
6	Webinar on Product Development (BYJU'S)	7 November 2020	120+
7	Intro to GameDev Workshop	8 November 2020	110+
8	Webinar on Child Psychology	8 November 2020	110+
9	Webinar by NTU	14 November	80+
10	Webinar on Master's Program in USA	15 November 2020	120+
11	Open Innovation Challenge Hackathon	21 - 22 November 2020	90+
12	Webinar by Epick Bikes	1 December 2020	135+
13	Orientation	6 December 2020	1200+
14	Open House for First Years	27 December 2020	1500+
15	Design Thinking Workshop	28 December 2020	170+
16	Open Source Fest	31 December 2020	70+

	Eduthon	12 - 13 January 2021	85+
17	Webinar on Leadership and Career Growth	17 January 2021	50+
18	Semester Exchange Program (SemEx)	17 February 2021	90+
19	Impact Tank	16 - 26 March 2021	340+
20	Phantom CTF 4.0	16 March 2021	2100+
21	Social Engineering CTF	17 March 2021	1800+
22	Summer AI Program	12 April - 6 August 2021	180+
23	Women in Innovation	18 April 2021	70+

Achievements and Milestones

ARIIA – Participation and Rank

'B and A' institution (rank between 11-25) in the category of 'Institute of National Importance, Central Universities & CFTIs'.

Open Innovation Challenge

In line with Atma Nirbhar Bharat Abhiyan, CII, NITW conducted an Open Innovation Challenge for students and startups for developing apps and toys for children to help in their learning.

Smart India Hackathon

Smart India Hackathon SIH, the world's biggest open innovation platform, is a nationwide initiative by the Ministry of HRD and a platform for the students to offer innovative solutions for pressing problems we face in our daily lives. NIT Warangal was chosen by MHRD as one of the 45 nodal centres across the country to organise the Grand Finale-2019. 32 student teams (200 students), 60 mentors and judges from across the country participated in the event.

For the AG344 PS given by Mathworks, the student team from NITW were declared winners after one college round and three national rounds.

- Sreemukh M
- Abhiram K
- Rajesh R
- Ruchita K
- Varun K
- Apoorva C

Winja Security Competition

Nullcon is an extensive platform for the exchange of information about zero-day vulnerabilities, the latest attack vectors, and other cyber threats. Here, security researchers and experts from various fields discuss information security, along with showcasing multiple offensives and defensive security technologies.

NITW's CybSec Team girls secured 9th rank all over the world in Winja Security Competition, a hacking competition for girls.

- Spandana Ratnala
- S Harika
- Meghana Pasikanti

Road To Shine

Road To Shine was a collaborative innovation program between T-Hub and Hiroshima Prefecture in Japan. The competition consisted of two phases, one to be held in India and the next in Hiroshima. The first phase had three rounds of selection with webinars and workshops in between to guide students towards human-centric product design.

Team Annokriya participated in the final presentation of the Road2Shine competition at T-Hub, Hyderabad. They were among the top 3 teams selected for working with Japanese companies. Annokriya worked with Torehan in developing a Garbage annotation app for Japanese people to get social points in return for social points.

Team Annokriya:

- Sarthak Kapoor

Team Enlightened Minds qualified for the second round of the Road2Shine competition. Their project aims to create awareness about career guidance amongst students and create a model that gives structure to the same and makes the process easier, long-term and affordable.

Team Enlightened Minds:

- Bristi Panja
- Malvika Singh

Achievements	Number
Number and different types of I&E and IPR activities conducted	19
Number of student and faculty ideas generated	21
Number of student and faculty innovation/prototypes developed	19
Number of IPs generated, published, granted and in review	Generated - 28 Published- 2

	Granted - 4 In review - 22
Number of student and faculty start-ups/ventures established	9
Amount spent on promotion and awareness generation on innovation entrepreneurship in the campus	1,50,000 INR
Amount grant or fund supported to student and faculty led innovations, start-ups and IPR	2,25,000 INR
Number of technology transfer and commercialisation happened	11

Patents

S. No.	Date	Patent Name	Patent Applicant Name	Patent No.	Department	Patent Nation	Patent Status
1	01.01.2020	Prefabricated Mesh as Longitudinal Core Reinforcement in Reinforced Concrete Members	Prof. C. B. Kameswara Rao	202041003566A	Civil		Application Published
2	01.01.2020	A Novel Means of Anchorage Reinforcing Bars in Reinforced Concrete Members	Prof. C. B. Kameswara Rao	202041005177A	Civil		Application Published
3	06.01.2021	Method of Waste Water Treatment by Hydrodynamic Cavitation Coupling with Hydrogel Adsorption	Dr. Shirish H. Sonawane	202141007302	Chemical		Application Filling
4	09.07.2020	A Dual DC- Power Supply Based Four-Level Open-End Winding Induction Motor Drive with a Flying Rectifier-inverter Combination	Prof. V. T. Somashekar	201741032892	EEE		FER

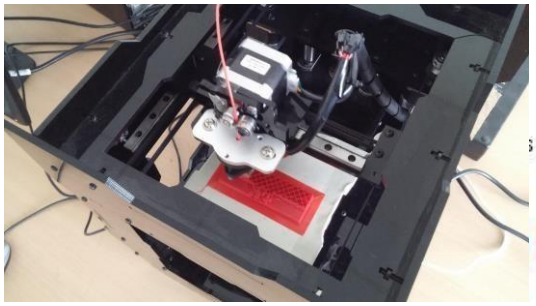
5	03.09.2020	Particle Size Reduction of Pharmaceutical Material/Drugs using Innovative Crystallization Process	Dr. Shirish H. Sonawane	201841033163A	Chemical		FER
6	06.10.2020	Pickling and Polishing Chemicals for Blank Coins and its Process Thereof	Dr. Shirish H. Sonawane	201741036100	Metallurgy		FER
7	06.10.2020	Dispersion of Nanoparticles into Binder and Plasticizer Matrix and its Process Thereof	Dr. Shirish H. Sonawane	6001/che/2015	Chemical		Patent Renewal
8	08.12.2020	An IP Core for Real Time Image/Video De-hazing Applications	Dr. Ravi Kumar Jatoth		ECE		Application Filling
9	29.12.2020	Process for Production of Nano Size Iron Oxide Pigment	Dr. Shirish H. Sonawane	490/CHE/2014	Chemical		Patent Granted
10	15.01.2021	Hovomarine	Sh. Pothineni Srinivasa Rao	4924/CHE/2013	Chemical		Patent Granted
11	01.02.2021	Particle Size Reduction of Pharmaceutical Material/Drugs using Innovative Crystallization Process	Dr. Shirish H. Sonawane	201841033163A	Chemical		Patent Granted
12	01.03.2021	Process for Production of Nano Size Iron Oxide Pigment	Dr. Shirish H. Sonawane	490/CHE/2015	Chemical		Patent Renewal
13	01.03.2021	Particle Size Reduction of Pharmaceutical Material/Drugs using Innovative Crystallization Process	Dr. Shirish H. Sonawane	201841033163A	Chemical		Renewal
14	01.03.2021	Helical Interlock System For Rapid Erection Of Pre-Case Members	Prof. C. B. Kameswara rao	201841039017A	Civil		FER

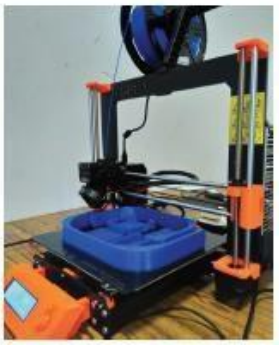
15	10.03.2021	Fast And Robust Vector Machines	Dr.Kadambari		CSE	Australian	Approval for IP application
16	18.03.2021	Electronic Jacquard Machine for Handloom Sector	Dr.Kota Naga Srinivasarao Batta		CSE		Approval for IP Application
17	30.03.2021	Pickling and Polishing Chemicals for Blank Coins and its Process Thereof	Dr. Shirish H. Sonawane	201741036100	Metallurgy		Patent Granted
18	05.04.2021	Covid:Masked Face Identification	Dr.Kadambari		CSE	Australian	Approval for IP application
19	27.07.2021	Design of Farnesol Based Novel Cationic Lipids as Drug and Biomolecule Delivery Vectors	Prof. P. V. Srilakshmi		Chemistry	Australian	Approval for IP application
20	02.08.2021	Solar-Assisted Peltier-Based Cold Storage for Horticulture Crops	Dr.Jaya Krishna Devanuri		Mech	Australian	Approval for IP application
21	03.08.2021	Increased Sustenance of Vaccines & Medical Containments by Hybrid Cold Storage	Dr.Jaya Krishna devanuri		Mech	Australian	Approval for IP application
22	03.08.2021	Telehealth Care System	Dr. V. Rama		ECE	Australian	Approval for IP application
23			Prof. C. B. Rama Rao				
24	06.08.2021	Method Of Waste Water Treatment By Hydrodynamic Cavitation Coupling With Hydrogel Adsorption	Dr. Shirish H. Sonawane	202141007302	Chemical		FER
25	09.08.2021	Mesh As Transverse Reinforcement In Reinforced Concrete Members	Prof. C. B. Kameswara Rao	201941038059A	Civil		FER

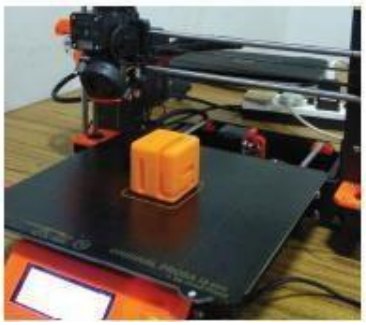
26	09.08.2021	Prefabricated Mesh As Longitudinal Core Reinforcement In Reinforced Concrete Members	Prof. C. B. Kameswara Rao	202041003566A	Civil		FER
27	18.08.2021	Functionalization Of Carbon Nanotubes With 4',7-dihydroxyflavone Exhibit Better Efficacy Against Leishmania Parasites	Dr. Prakash Saudagar, Mr. Santhanu Sasidharan		Biotech	Australian	Approval for IP application
28	17.08.2021	A Flipped Voltage Follower (FVF) Based Low Drop-out Regulator Using Voltage To Time Converter For Next Generation SOC Nodes	Mr. K. Krishna Reddy, Dr. Sreehari Rao Patri		ECE	Australian	Approval for IP application
29	17.08.2021	Identification of Duplicate Security Vulnerabilities Using Machine Learning	Mr. Akash Kumar			Australian	Approval for IP application
30	19.08.2021	Real Time Mal-Nutrition Tracking in Underprivileged Children	Mr. Saurabh Shukla		Chemical	Australian	Approval for IP application
31	24.08.2021	Application of Flow Profile and Blade Design in Creating a Compact Mechanical Dishwasher	Mr. Katakam Vishnu Sree Shantahnu		Mech	Australian	Approval for IP application
32	25.08.2021	Intelligent Patient Emergency Management System	Mr. Shritej Sahebrao		Electrical	Australian	Approval for IP application

Equipment and Resources

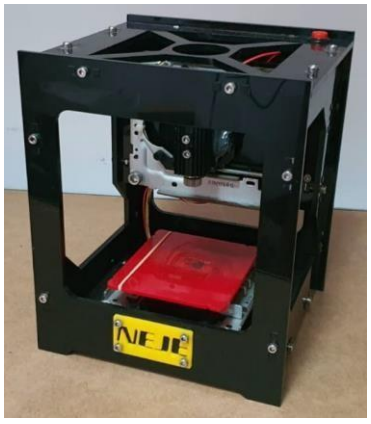
3D Printer





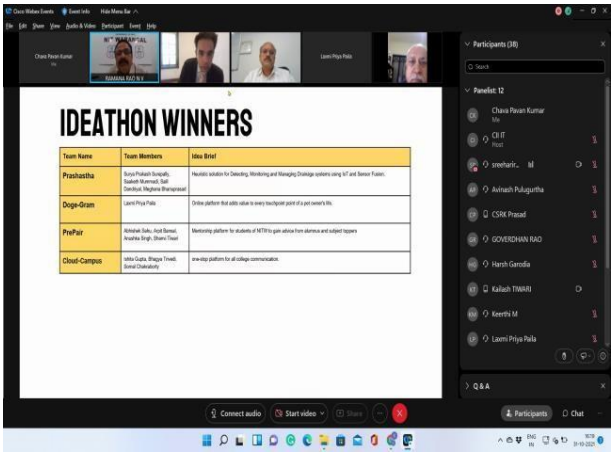


Laser Engraver



GeForce GTX 1070 Ti Graphics Card







DEPARTMENT OF CIVIL ENGINEERING

Brief History of the Department, Academic Programs

The Department of Civil Engineering was established in 1959, along with the setting up of the Regional Engineering College Warangal (RECW), the first among the chain of REC s. The department offers undergraduate and eight graduate programs in addition to Ph.D. Almost all programs are NBA accredited in compliance with the Washington Accord.

The department has highly qualified and committed faculty members who are well recognized and are members of many national and state level policy making and advisory bodies. The department of civil engineering has the honour of being recognized as QIP centre since 1978, to offer graduate and Ph.D. programs to faculty of other technical institutions.

Recently the curriculum revision has been completed for B.Tech and all M.Tech programs. The concept of Honors program for B.Tech in Civil Engineering and Minors in allied programs has been introduced. Several PG-Diploma and self-financed programs have been introduced in the existing specializations.

The department aspires to be a knowledge nerve centre in Civil Engineering Education, Research, Entrepreneurship and Industry outreach for creating sustainable infrastructure and enhancing the quality of life. This will be achieved by generating a specialized cadre of Civil Engineers by imparting quality education and training to attain International standards in teaching, research and consultancy with global linkages.



Faculty Details

S. No.	Name of the Faculty Member and Designation	Highest Qualification	Research Interests	Photograph
1	Dr. N.V. Ramana Rao, Professor of Civil Engineering & Director NITW	Ph.D	Vibrations, FEA, Structural Shape Optimisation of axisymmetric & prismatic shells & folded plates,Geopolymer Concrete,Composites, Ferrocement	
2	Dr.P.Rathish Kumar, Professor & HOD	Ph. D, Dr. Eng	High Performance Mortars/Concrete, Low Cost/Alternate building Materials, Self Compacting Concrete, Ferrocement, Fibrous Concretes, Recycled Aggregate Concrete, Earthquake Engineering, Cement Composites, Health Monitoring of Structures, Repair and Rehabilitation of buildings and bridges.	
3	Dr. K.V.Jayakumar, Professor (HAG, Emeritus)	Ph. D	Hydrology and Water Resources, Urban Water Management, Irrigation Engineering, Land and Water Management, Environmental Impact Assessment, Disaster Management, GIS Applications, Wetland Hydrology, Environmental Management, Environmental Flow	
4	Dr. N. V. Umamahesh, Professor (HAG)	Ph. D	Water Resources Systems, Hydrological Modelling, Stochastic Hydrology, Impact of Climate Change on Hydrology and Water Resources, Urban Floods, Flood Forecasting	

5	Dr. C.S.R.K. Prasad, Professor (HAG)	Ph. D	Transportation Engineering (Travel Demand Modelling, Urban & Regional Planning, Land Use Planning, Transit Oriented Development, Public Transport, Highway Network Design, Traffic Safety, Safety Audit, Traffic System Design, Transport Economics, Low Volume Roads, Project Management)	
6	Dr. C.B. Kameswara Rao, Professor	Ph. D	Engineering Structures, Ferrocement, Fiber reinforced concrete, Sustainable Concrete, Torsion of RC members, Rehabilitation and retrofitting of structures, Remedial Engineering, Ductility of High Strength Concrete, Progressive Collapse,	
7	Dr. P. Anandraj, Professor	Ph. D	Fuzzy Logic, Decision Making, Water Resources	
8	Dr. D.Ramaseshu, Professor	Ph. D	New Concrete making materials, Repair and Rehabilitation	
9	Dr. G.Rajesh kumar, Professor	Ph. D	High Strength Concrete, Prestressed Concrete, Bridges, Use of Sustainable Materials	

10	Dr. Deva Pratap, Professor	Ph. D	Engineering Geology, Remote Sensing Applications	
11	Dr. M. CHANDRA SEKHAR, Professor (HAG)	Ph. D	Water Quality Management, Air Pollution and Control, Wastewater Treatment, Solid Waste Management	
12	Dr. T. D. Gunneswara Rao, Professor	Ph. D	Fracture Mechanics of Concrete StructuresFiber Reinforced ConcreteSustainable Construction Materials	
13	(Late) Dr. E. Venkata Rathnam, Professor	Ph. D	Transients in Pipelines, Hydro-power Engineering, Groundwater Engineering, Urban Water Management, Design of Hydraulic Structures, Water Distribution Networks, Reservoir Sedimentation.	
14	Dr. V. Ramana Murty, Professor	Ph. D	Ground Improvement, Expansive Soils, Geosynthetics and Environmental Geotechniques	
15	Sri V.N.Kameswara Rao, Assoc.Professor	M.Tech	Fluid Mechanics and Hydraulic Machines; Hydrologic Systems Modelling; Transport Phenomena of Mass, Momentum, Energy for climate modelling; Groundwater Modelling	

16	Sri M. Sudhakar, Assoc.Professor	M.Tech	Steel fibre Reinforced Concrete	
17	Dr P.Hari Krishna, Assoc.Professor	Ph. D	Expansive Soils, Granular Anchor Piles, Soil-structure interaction	
18	Dr. M.Heeralal, Assoc.Professor	Ph. D	Ground improvement, EXpansive soil, Recycled aggregate in pavements, geo Environmental, unsaturated soil.	
19	Dr K. Venkata Reddy, Assoc.Professor	Ph. D	Watershed modelling and management using numerical, soft computing and geospatial methods; Climate change impact studies; Applications of geospatial technologies in rural and urban environments.	
20	Dr P. Hari Prasad Reddy, Assoc.Professor	Ph. D	Soil-Pollutant Interaction, Adsorption studies, Contaminant Transport through Porous Media, Bioremediation	
21	Dr. Venkaiah Chowdary, Assoc.Professor	Ph. D	Characterization for asphalt binders and mixtures; asphalt pavement analysis, design and evaluation; assessment of roadway and railway traffic noise	

22	Dr. P. Venkateswara Rao, Assoc.Professor	Ph. D	Water and Wastewater treatment, Soild Waste management, Waste to energy techologies	
23	Dr. S. Venkateswara Rao, Assoc.Professor	Ph. D	Self Compacting Concrete, Fiber reinforced concrete, Durability of concrete, Self compacting mortars with Nano materials and multi component binder, use of rycled aggregates in concrete.	
24	Dr. Arif Ali Baig Moghal, Assoc.Professor	Ph. D	Geotechnical and Geoenvironmental Engineering, Unsaturated Soil Mechanics	
25	Dr. T.P. Tezeswi, Asst.Professor	Ph. D	multi-scale behavior of composite materials ,shock and high strain rate testing; structural dynamics; nonlinear finite element analysis; composite materials; vibration testing; photo elastic testing; Multi-hazard (blast, seismic and wind) vulnerability assessment of critical infrastructure.	
26	Dr. S. Shankar, Asst.Professor	Ph. D	Low Volume Roads-Design, Construction, Evaluation and Maintenance Pavement Analysis and Design, Materials Characterization Pavement Evaluation and Deterioration Modeling Geosynthetics and Soil Stabilization Sustainable/Marginal / Waste and innovative	

			materilas	
27	Dr. M. Shashi, Asst.Professor	Ph. D	Advanced Surveying, Photogrammetry, GNSS	
28	Dr. Ajey Kumar Patel, Asst.Professorl	Ph. D	Computational Fluid Dynamics (CFD); Environmental Fluid Mechanics; Wastewater Engineering; Surface Aeration Systems	
29	Dr. D. Ravi Prasad, Asst.Professor	Ph. D	Structural health monitoring, Hybrid fiberreinforced engineered cementatious composites, sustainable construction materials.	
30	Dr. M.V.N. Sivakumar, Asst.Professor	Ph. D	Computational Mechanics;Fracture Mechanics Applications to Metal and Concrete Structures;Finite Element and Reliability Applications to Nuclear Reactor Components;Experimental Studies on Special Concretes;Rheology of concrete	
31	Dr. K.V.R. Ravi Shankar, Asst.Professor	Ph. D	Pedestrian behavioural analysis and modelling. Crowd dynamic analysis and emergency evacuation planning. Safety Analysis of vehicular interactions in mixed traffic conditions. Non-lane based behaviour modelling and nanoscopic model development. Optimal network design and	

			multi-modal analysis. Capacity analysis of highways in mixed traffic conditions.	
32	Dr. G. Kalyan Kumar, Asst.Professor	Ph. D	Seismic Hazard Analysis, Pile Foundations, Slope Stability Analysis	
33	Dr. K. Gopi Krishna, Asst.Professor	Ph. D	Wavelet finite element methods for structural dynamics, Multi-Hazard performance assessment of structures (Multiple earthquakes & secondary hazards), Reliability analysis of structures	
34	Dr. Arpan Mehar, Asst.Professor	Ph. D	Traffic flow behavior, Roadway capacity and level of service, Geometric design of highways, driver behaviour, Highway safety, traffic flow simulation	
35	Dr. P. Sridhar, Asst.Professor	Ph. D	Water/wastewater treatment, life cycle analysis, modelling of water/wastewater treatment, Solid waste management, bio-energy production from wastewater, wastewater sludge, and organic waste, Biodiesel, Bioplastic, Bio-flocculant	
36	Dr. G. V. Ramana, Asst.Professor	Ph. D	Rock Mechanics and Rock Engineering, Design and analysis of underground structures in or on rock-mass, Ground improvement techniques, Alkali Silica Reaction (ASR) Studies on Water Resources Structures, Strength and Durability Studies of Multi	

			Blended Concretes.	
37	Dr. S. Anitha Priyadharshani, Asst.Professor	Ph. D	FRP Composites, stiffened plates and Finite element analysis	
38	Dr. B. Kavitha, Asst.Professor	Ph. D	Engineering Seismology; Earthquake data analysis; Simulation of ground motions; Probabilistic Seismic Hazard Assessment; Earthquake Forecasting	
39	Dr. V. Aneetha, Asst.Professor	Ph. D	BIM and nD planning, Lean construction, Construction Quality and Safety Management, Project planning and control, Value Engineering	
40	Dr. C. Sumanth, Asst.Professor	Ph. D	Air pollution, Indoor Air Pollution, Sustainable Development, Water and waste water, Solid waste management	
41	Dr. Umesh B., Asst.Professor	Ph. D	Numerical Methods in Civil Engineering, Classical and non-Classical Continuum theories and Damage and Fracture Mechanic	
42	Dr. Shashi Ram, Asst.Professor	Ph. D	Sustainable Building Materials, Energy Efficient Materials, Green Buildings, Solid Waste Management	

43	Dr. Sudheer K. Yamsani, Asst.Professor	Ph. D	Environmental Geotechnics, Reinforced soil systems	
44	Dr. Litan Kumar Ray, Asst.Professor	Ph. D	Stochastic hydrology, Flood & drought estimation, Real-time flood forecasting modelling, Hydrologic Modelling, climate change and climate variability study	
45	Dr. Vema Vamsi Krishna, Asst.Professor	Ph. D	Hydrologic Modelling, Watershed Management, Parameterization of Watershed Models, Agricultural Water Management, Optimal Allocation of Resources, Decision Making Under Uncertainty, and Application of Soft Computing Tools for Water Resources Problems.	
46	Dr. Vishnu R., Asst.Professor	Ph. D	Pavement Materials, Pavement evaluation and Design	
47	Dr. Sanjit Biswas, Asst.Professor	Ph. D	Soil Dynamics, Machine Foundations, Shallow and Deep Foundations, Field and Laboratory Testing,Finite Element Analysis, Continuum Approach Modelling	

48	Dr. R. Ramesh Nayaka, Asst.Professor	Ph. D	Building Information Modelling (BIM) in Construction Projects, Modern Construction Techniques for Affordable Housings and Sustainable Construction Materials.	
49	Dr. Manish Pandey, Asst.Professor	Ph. D	Fluvial Hydraulics, River Training Works, Sediment Transport	
50	Dr. Raghuram Kadali, Asst.Professor	Ph. D	Pedestrian Cross Flow Modelling, Non-Motorized Safety, Traffic Safety, Driver Behaviour, Traffic flow modeling; Transportation Environment; Travel behavior, Sustainable Transportation; Freight Transportation	
51	Dr. P. Ravi Prakash, Asst.Professor	Ph. D	Computational Mechanics, Structural Fire Engineering, Artificial Intelligence in Structural Engineering	
52	Dr. Manali Pal, Asst.Professor	Ph. D	Hydroclimatology, Remote Sensing, Stochastic Modelling, Machine Learning, Soil Moisture	

Journal Publications

Nayaka, R. R., Alengaram, U. J., Jumaat, M. Z., Fonseca, F. S., & Sumesh, M. **Rathish Kumar P.** (2021). Novel Masonry Grout Incorporating High Volumes of Industrial By-Products: Microstructure Characteristics and Pursuance of Durability Properties. DOI: 10.1007/s44150-021-00012-x.

Chandra Sekhar K, **Rathish Kumar. P** (2021)."Developing a Novel Mix Design Methodology for Slow Hardening Composite Cement Concretes Through Packing Density Approach" Journal of Construction and Building Materials, Vol 303, Oct 2021, Elsevier Publishers DOI: https://doi.org/10.1016/j.conbuildmat.2021.124391

Chandra Sekhar K, **Rathish Kumar. P** (2021)." Influence of Particle Packing Theories on Strength and Microstructure Properties of Composite Cement based Mortars" ASCE Journal of Materials in Civil Engineering Vol 33, Issue 10, October 2021.

D. Nikhil Kumar, **Rathish Kumar. P** (2021)."Material properties of the light mass bricks from an 800 year old Heritage site in India", Vol 26, Issue 2 pp, 89-100, Cement Wapno Beton.

Chandra Sekhar K, **Rathish Kumar. P** (2021)." Influence of gradation of aggregates using particle packing methods on strength and microstructure of blended cement mortars" Materials Today: Proceedings, DOI: https://doi.org/10.1016/j.matpr.2021.07.458 (in press).

D. Nikhil Kumar, **Rathish Kumar. P** (2021)." Use of particle packing methods for development of lime fly ash-based mortars for repair of heritage structures" Materials today, Proceedings, Elsevier, DOI: 10.1016/j.matpr.2021.06.019 (In Press).

Madhavilatha K, **Rathish Kumar. P** (2021)." Multi-recycled aggregate concrete towards a sustainable solution – A review", Vol 26 Issue -1, pp. 35-45, Cement Wapno Beton.

Suchith Reddy Arukala, **Rathish Kumar. P** (2021), "Assessing Interdependency among Sustainable Criteria and Indicators for Developing a Building Assessment Tool", Vol 14, Issue 4, International Journal of Sustainable pp. 647-663, Taylor and Francis.

Suchith Reddy Arukala and **Rathish Kumar. P** (2021), 'Integration of advances in sustainable technologies for the development of Sustainable Building Assessment Tool', International Journal of Technology Management & Sustainable Development Volume 19, Number 3, 1 October 2020, pp. 335-360(26).

Yeshwanth P, **Heeralal M, Rathish Kumar. P** (2021)." Flexural Fatigue Behavior of Steel Fiber Reinforced Reclaimed Asphalt Pavement (RAP) based Concrete – An Experimental Study" Practice Periodical on Structural Design and Construction DOI: 10.1061/(ASCE)SC.1943-5576.0000540.

Rathish Kumar. P (2021)."Study on bridge weigh in motion (BWIM) system for measuring the vehicle parameters based on strain measurement using FBG sensors" Optical Fiber Technology, Elsevier DOI: 10.1016/j.yofte.2020.102440.

Chandra Sekhar K, **Rathish Kumar. P,** (2020) "A Study on microstructure characterization of composite cement based mortars, Cement WapnoBeton, 25(5), pp. 390-403, DOI: 10.32047/CWB.2020.25.5.5.

Rathish Kumar. P (2020)."Cost-effectiveload measurement system for health monitoring using long-period grating as an edge filter" Optical Fiber Technology, Elsevier DOI: 10.1016/j.yofte.2020.102328.

D. Nikhil Kumar, **Rathish Kumar. P** (2020)."Characterization of ancient mortar for sustainability of an 800 year old heritage site in India" Materials today, Proceedings, Elsevier DOI: 10.1016/j.matpr.2020.03.472.

Rathish Kumar. P (2020). "Image based deterioration assessment of concrete", Materials Today, Elsevier, 10.1016/j.matpr.2020.03.716.

Suchith Reddy Arukala, **Rathish Kumar. P** (2020). "Developing Sustainable Performance Index (SPI) for Self Compacting Concretes", Journal of Building Engineering, 27(1) (2020):100974 Elsevier, DOI: 10.1016/j.jobe.2019.100974.

Suchith Reddy Arukala, **Rathish Kumar. P** (2020), "Preference based multi-criteria framework for developing a Sustainable Material Performance Index (SMPI)", International Journal of Sustainable Engineering, 1(1): pp. 1-14.

Subhadarsini Das, Jew Das, **N VUmamahesh**, Nonstationary Modeling of Meteorological Droughts: Application to a Region in India, Journal of Hydrologic Engineering, 2021.

Agilan, V; **Umamahesh, NV; Mujumdar, PP**, Nonstationary Modeling of Meteorological Droughts: Application to a Region in India, Journal of Hydrology, 593, 2021.

Rangari, Vinay Ashok; **Umamahesh, NV; Patel, Ajey Kumar**, Flood-hazard risk classification and mapping for urban catchment under different climate change scenarios: A case study of Hyderabad city, Urban Climate, 36, 2021.

Das, Subhadarsini; Das, Jew; **Umamahesh, Nanduri Venkata**; Identification of future meteorological drought hotspots over Indian region: A study based on NEX-GDDP data, International Journal of Climatology, 2021.

Rangari, Vinay Ashok; Bhatt, CM; **Umamahesh, NV**; Rapid assessment of the October 2020 Hyderabad urban flood and risk analysis using geospatial data, Current Science (00113891), 120(12), 2021.

Karnatapu, Leela Krishna; Annavarapu, Srinivasa Prasad; Nanduri, **Umamahesh V,** Multi-Objective Reservoir Operating Strategies by Genetic Algorithm and Nonlinear Programming (GA–NLP) Hybrid Approach, (2020) Journal of The Institution of Engineers (India): Series A 101(1).

Rangari, Vinay Ashok; Bhatt, CM; **Umamahesh, NV**, Rapid assessment of the October 2020 Hyderabad urban flood and risk analysis using geospatial data, 2021, Current Science (00113891) 120(12).

G.Venkata Rao, K.Venkata Reddy, Raghavan Srinivasan, Venkataramana Sridhar, **N.V. Umamahesh, Deva Pratap,** Spatio-temporal analysis of rainfall extremes in the flood-prone Nagavali and Vamsadhara Basins in eastern India.

Rao, G.V., Reddy, K.V., Srinivasan, R.,Sridhar, V., **Umamahesh, N.V. and Pratap, D**.,Spatio-temporal analysis of rainfall extremes in the flood-prone Nagavali and Vamsadhara Basins in eastern India, Weather and Climate Extremes, 29, p.100265, 2020.

Satya, B.A., **Shashi, M**. and **Deva Pratap**., Future land use land cover scenario simulation using open source GIS for the city of Warangal, Telangana, India, Applied Geomatics, 12(3), pp.281-290, 2020.

B Aneesha Satya, **M Shashi, Deva Pratap**, A Pilot Study Of Modeling A City In 3D, International Journal Of Scientific & Technology Research, 2020, 9, 3: 2277-8616.

Kotrike, T., **Pratap, D**. and Keesara, V.R, Validation and Trend Analysis of Satellite-Based AOD Data over Southern India. Aerosol Science and Engineering, 5(1), pp.32-43, 2021.

Chandra Sekhar, M. Nimmy John, Estimation of Soil Loss from Watershed for Identifying High Risk Erosion Zones Using GIS, Journal of Water Engg. and Management, 2020, 1(3) : 08-16.

Chandra Sekhar M and Vinay S. H, Hydrological Modelling Studies of Paravar River Basin, a Tributary of River Godavari using HEC.

Hari Krishna, P. and Ramana Murty, V. Long-term Field Heave Studues on Various Foundation Techniques in Expansive Soils, Indian Geotechnical Journal, Springer, (2021) PP 1-15

Bhavita Chowdary, **Ramana Murty, V.** and **Rakesh J. Pillai**, Fibre Reinforced Geopolymer Treated Soft Clay- An Innovative and Sustainable Alternative for Soil Stabilization, 2021, Materials Today Proceedings, Elsevier, 32, 779-781,

Lakshmi Sruthi P., **Hari Prasad Reddy P**.Effect of alkali concentration on swelling characteristics of transformed kaolinitic clays, Clay and clay Minerals, 68, 373-393.

Venna S., Bhakta Sharma H., **Hari Prasad Reddy P**., Chowdhury S., Kumar Dubey B., Landfill leachate as an alternative moisture source for hydrothermal carbonization of municipal solid wastes to solid biofuels, Bioresource Technology, Vol. 320, Part B, 124410.

Saikumar Vindula, **Hariprasad Reddy Ponnapureddy**, Shiva Prasad A, Chavali Rama Vara Prasad, Mineralogical and morphological transformations of alkali contaminated kaolinitic soils, Materials Today: Proceedings, Volume 46, Part 1, Pages 263-271.

Lakshmi Sruthi P, **Hari Prasad Reddy P and Arif Ali Baig Moghal** (2021). Swelling Behavior of Alkali Transformed Kaolinitic Clays Treated with Flyash and Ground Granulated Blast Furnace Slag. Indian Geotechnical Journal. https://doi.org/10.1007/s40098-020-00489-1 (Status: Accepted and In-Press)

Vishal, U., **Chowdary, V.**, Padmarekha, A., and Krishnan, J.M.,Influence of moisture

damage on fatigue of warm mix and hot mix asphalt mixture, Journal of Materials in Civil Engineering, 2020, 32(9), 04020247.

Aditya, K., and **Chowdary, V.**, Quantification of pass-by noise levels on urban roads: effect of engine propulsion and tire-road interaction., Fluctuation and Noise Letters, 2020, 19(3), 2050030.

Kakara, S., Chintada, C., and **Chowdary, V**.,Influence of commercial vehicle characteristics on the magnitude of dynamic wheel loads over asphalt pavement profiles with different roughness., Journal of the Institution of Engineers (India): Series A, 2020, 101(4), 723-734.

Vydehi KV and **Arif Ali Baig Moghal**, Effect of Biopolymeric Stabilization on the Strength and Compressibility Characteristics of Cohesive Soil, Journal of Materials in Civil Engineering, 2021.

Mohammed Ashfaq, **Arif Ali Baig Moghal** and Munwar B Basha, Reliability-Based Design Optimization of Chemically Stabilized Coal Gangue, Journal of Testing and Evaluation. Vol. 51, No. 1, 2021.

Ahmed Al-Mahbashi, Mosleh Ali Al-Shamrani, **Arif Ali Baig Moghal** and Vydehi KV, Correlation Based Studies on Resilient Modulus Values for Fiber Reinforced Lime-Blended Clay, International Journal of Geosynthetics and Ground Engineering. Vol. 7, No. 3, Article No: 59.

Abdullah Ali Shaker, Mosleh Ali Al-Shamrani, **Arif Ali Baig Moghal** and Vydehi KV, Effect of Confining Conditions on the Hydraulic Conductivity Behavior of Fiber-Reinforced Lime Blended Semiarid Soil, Materials. Vol. 14, No. 11, Article No. 3120.

Abdullah Almajed, Mohammed Abdul Lateef, **Arif Ali Baig Moghal** and K. K. Lemboye, State-of-the-Art Review of the Applicabilityand Challenges of Microbial-Induced Calcite Precipitation (MICP) and Enzyme-Induced Calcite Precipitation (EICP) Techniques for Geotechnical and Geoenvironmental Applications, Crystals. Vol. 11, No. 4, Article No. 370.

Abdullah Almajed, Srirama Dinesh and **Arif Ali Baig Moghal**, Response Surface Method Analysis of Chemically Stabilized Fiber-Reinforced Soil, Materials. Vol. 14, No. 6, Article No. 1535.

Arif Ali Baig Moghal and Vydehi KV, State-of-the-art Review on Efficacy of Xanthan Gum and Guar Gum Inclusion on the Engineering Behavior of Soils, Innovative Infrastructure Solutions. Vol. 6, Article No. 108, pp.1-14.

Arif Ali Baig Moghal, Mohammed Abdul Lateef, Syed Abu Sayeed Mohammed, Munir Ahmad, Adel R.A. Usman and Abdullah Almajed, Heavy Metal Immobilization Studies and Enhancement in Geotechnical Properties of Cohesive Soils by EICP Technique, Applied Sciences. Vol. 10, No. 21, Article No. 7568.

Kotresha K, Syed Abu Sayeed Mohammed, Sanaulla PF, Afzal Ali Baig Moghal and **Arif Ali Baig Moghal** (2020). Evaluation of Sequential Extraction Procedure (SEP) to Validate Binding Mechanisms in Soils and Soil-Nano-Calcium-Silicate (SNCS) Mixtures. Indian Geotechnical Journal. https://doi.org/10.1007/s40098-020-00464-w.

Swarna Swetha Kolaventi, Hikmatullah Momand, **T P Tezeswi, M V N Siva Kumar**, Implementing construction wastemanagement plan, recycling in India: Barriers, Benefits, Measures,Engineering Sustainability (Proceedings of the ICE), pp. 1–17, Published online:June 10, 2021

GTL Priyanka, Ch. Saideep, **Tezeswi Tadepalli**, *Dynamic Characterization of* Additively Manufactured Polylactide (PLA), Journal of Materials: Design and Applications, Accepted- Nov 21, 2021.

Swarna Swetha Kolaventi, Hikmatullah Momand, **T P Tezeswi**, M V N Siva Kumar, Implementing construction wastemanagement plan, recycling in India: Barriers, Benefits, Measures, Engineering Sustainability (Proceedings of the ICE), pp. 1–17, Published online:June 10, 2021.

GTL Priyanka, KamleshKumar, V. GuruPrathap Reddy, **T.Tadepalli**, Mechanical Reliability of Extruded PLA Filaments, Materialia, Elsevier, Vol. 16, May 2021, 101075.

Kumarapu K., **Shashi M.**, Keesara V.R, UAV in Construction Site Monitoring and Concrete

Strength Estimation, Journal of Indian Society of Remote Sensing.

Naga Sowjanya P., **Venkata Reddy K., Shashi M**, Intra- Iand interannual streamflow variations of Wardha watershed under changing climate, ISH Journal of Hydraulic Engineering, 2020.

Sai Charitha., **Shashi M**, Slope Stabilty Analysis for Mine Hazard Assessment Using UAV, Journal of Indian Society of Remote Sensing, 2021.

Sirish D., **Shashi M**., Kumar K., Mandla V.R, UAV in Developement of 3D Heritage Monument Model: A Case Study of Kota Gullu, Warangal, India, Journal of Indian Society of Remote Sensing, 2021.

Susmita Ramireddy and **Ravishankar KVR**, Effect of Vehicle Composition on Saturation Flow at Signalized Intersections in Mixed Traffic Conditions. IET Intelligent Transport Systems, Vol. 14, Issue 7, pp 647-656. 2020.

LalamGovinda, Dodappaneni Abhigna, Parvathy M Nair, and **K.V.R. Ravi Shankar,** Comparative Study of Pedestrian Crossing Behaviour at Uncontrolled Intersection and Midblock Locations, Transportation Research Procedia, Vol. 48, pp 698-706. 2020.

Ramireddy Sushmitha and **KVR Ravishankar**, Modelling Saturation flow at signalized intersections in mixed traffic conditions: Artificial Neural Network approach, Suranaree Journal of Science and Technology, Volume 28(1), pp 1-11. 2021.

Sushmitha, R. and **Ravishankar, KVR**. Effect of pedestrian crossing on saturation flow at signalized intersections in mixed traffic conditions, Suranaree Journal of Science and Technology, Online first, 2021.

Chinthala Sumanth, Mukesh Khare, Komal Shukla, "Numerical modelling of PM10 dispersion in open-pit mines",, Chemosphere, Volume 259, 2020, 127454, ISSN 0045-6535, https://doi.org/10.1016/j.chemosphere.2020.127454.

Selvaraj Ambika, **Umesh Basappa**, Ananya Singh, Vijaya Gonugade, Rajveer Tholiya, Impact of social lockdown due to COVID-19 on environmental and health risk indices in India, Environmental Research, 2021, 196, 110932, 2021.

Arthesh Basak, Rajagopal Amirtham, **Umesh Basappa** , Mokarram Hossain, The Use of Contravariant Tensors to Model Anisotropic Soft Tissues, International Journal of Applied Mechanics, 2021, 13(3), 2150039, 2021.

Arthesh Basak, Rajagopal Amirtham, **Umesh Basappa**, The use of Contravariant Tensor Invariants to model damage in Anisotropic Soft Tissues, Mechanics of Advanced Materials and Structures, 2021.

J Shaikh, S Bordoloi, AK Leung, **SK Yamsani**, S Sekharan, RR Rakesh. Seepage characteristics of three-layered landfill cover system constituting fly-ash under extreme ponding condition. Science of the Total Environment, 2021.

J. Shaikh, **S.K. Yamsani**, MJ Bora, S Sahoo, S. Sreedeep, and R. R. Rakesh, Influence of infiltration on soil erosion in green infrastructures, Acta horticulturae et regiotecturae, 24, 2021(1): 1–8.

Litan Kumar Ray, N. K. Goel, Spatio-temporal change in rainfall over five different climatic regions of India, Journal of Water and Climate Change, 2021.

Kumar, A., **Vema, V.K**., Kurian, C., Thomas, J., Sudheer, K.P. A decision support system for the identification of critical zones in a watershed to implement land management practices. Stochastic Environmental Research and Risk Assessment. https://doi.org/10.1007/s00477-021-01983-5, 2021.

Choudhary, S. S., **Biswas, S.** and Manna, B. Effect of pile arrangements on the dynamic coupled response of pile groups, Geotechnical and Geological Engineering, 2020.

RR Nayaka, UJ Alengaram, MZ Jumaat, S Yusoff, R Ganasan, Performance Evaluation of Engineering Properties, Radiation Shielding, and Sustainability of Hollow Masonry Blocks Produced Using a High Volume of Industrial By-Products,Journal of Materials in Civil Engineering, 33 (3).

R Ganasan, CG Tan, Z Ibrahim, N Muhamad Bunnori, **RR Nayaka**, Crack assessment of RC beam-column joints subjected to cyclic lateral loading using Acoustic Emission (AE): The influence of shear links aspect,Canadian Journal of Civil Engineering.

RR Nayaka, UJ Alengaram, MZ Jumaat, KB Rao, Eco-Friendly Masonry Products for Affordable Housing—Perspective of Positive Social Impact, Lecture Notes in Civil Engineering, Springer Nature, Singapore.

Khan, M. A., Sharma, N., Pu, J., Aamir, M., & **Pandey M**, Two-dimensional turbulent burst examination and angle ratio utilization to detect scouring/sedimentation around mid-channel bar.Acta Geophysica, (2021)1-14.

Pandey, M., & Md Azamathulla, H., Discussion of "Gene-Expression Programming, Evolutionary Polynomial Regression, and Model Tree to Evaluate Local Scour Depth at Culvert Outlets" by Mohammad Najafzadeh and Ali Reza Kargar, Journal of Pipeline Systems Engineering and Practice, 12(2), 07021001.

John, C. K., Pu, J. H., Moruzzi, R., & **Pandey, M**.Health-risk assessment for roof-harvested rainwater via QMRA in Ikorodu area, Lagos, Nigeria.Journal of Water and Climate Change (IWA).

John, C. K., Pu, J. H., **Pandey, M**., & Moruzzi, R., Impacts of sedimentation on rainwater quality: case study at Ikorodu of Lagos, Nigeria. Water Supply (IWA).

Khan, M. A., Sharma, N., Pu, J. H., **Pandey, M**., & Azamathulla, H.Experimental observation of turbulent structure at region surrounding the mid-channel braid bar, Marine Georesources & Geotechnology, 1-14.

John, C. K., Pu, J. H., **Pandey, M**., & Hanmaiahgari, P. R.Sediment deposition within rainwater: case study comparison of four different sites in Ikorodu, Nigeria, Fluids, 6(3), 124.

Pu, J. H., Wallwork, J. T., Khan, M., **Pandey, M**., Pourshahbaz, H., Satyanaga, A., & Gough, T.Flood suspended sediment transport: combined modelling from dilute to hyper-concentrated flow.Water, 13(3), 379.

Amir Khan, M., Sharma, N., **Pandey, M**., & Qamar, O.Turbulent characteristics of flow in the vicinity of mid-channel braid bar.Canadian Journal of Civil Engineering, 99(999), 1-9.

Pandey, M., Jamei, M., Karbasi, M., Ahmadianfar, I., and Chu, X. Prediction of Maximum Scour Depth near Spur Dikes in Uniform Bed Sediment Using Stacked Generalization Ensemble Tree-Based Frameworks, Journal of Irrigation and Drainage Engineering (ASCE), 2021.

Shankar, M. S., **Pandey, M.,** & Shukla, A. K, Analysis of Existing Equations for Calculating the Settling Velocity, Water (MDPI), 2021.

Jain, R., Lodhi, A. S., Oliveto, G., and **Pandey, M**. Influence of Cohesion on Scour at Piers Founded in Clay–Sand–Gravel Mixtures, Journal of Irrigation and Drainage Engineering (ASCE), 2021.

Pandey, M., Jamei, M., Ahmadianfar, I., Karbasi, M., Lodhi, A.S., Chu, X., Assessment of scouring around submerged spur dike in cohesive sediment mixtures: A comparative study on three rigorous machine learning models. Journal of Hydrology, Elsevier, 601, 2021. https://doi.org/10.1016/j.jhydrol.2021.127330.

Pandey, M., Zakwan, M., Khan, M. A., & Bhave, S. (2020). Development of scour around a circular pier and its modelling using genetic algorithm. Water Supply, 20(8), 3358-3367.

Bhave, S., Kumar, S., Singh, U. K., **Pandey, M.**, & Ahmad, Z. (2020). Experimental investigation of a trench weir with T-shaped bars. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 42(10), 1-17. (I.F. 1.75)

Shivashankar, **M., Pandey**, M., and Zakwan,, M. Estimation of Settling Velocity Using Generalized Reduced Gradient (GRG) and Hybrid Generalized Reduced Gradient-Genetic Algorithm (Hybrid GRG-GA, Acta Geophysica, (2021)1-14.

Kadali, B. R., & Vedagiri, P. (2020). Role of number of traffic lanes on pedestrian gap acceptance and risk taking behaviour at uncontrolled crosswalk locations, 19,1-14. (I.F. 2.418)

Kadali, B. R., Ingole, S., and Iyer, K.R.K. and Subbarao, S.S.V, User perception towards ride hail service: A case of Nagpur city, India, Journal, European Transport, 84(3), 1-12.

Pradeep, V.H., Amshala, V.T., & **Kadali, B.R**, Does Perceived Technology and Knowledge of Maintenance Influences Purchase Intention of BEVs, Journal of Transportation Research Part D, 2021.

Subbarao, S.S.V., and **Kadali, B. R**., Impact of COVID-19 pandemic lockdown on public transportation system and strategic plans to improve PT ridership: A review, Innovative Infrastructure Solutions.

Maity, R., M.I. Khan, S. Sarkar, R. Dutta, S. S. Maity, **M. Pal** and K Chanda, Potential of Deep Learning in Drought Assessment by Extracting Information from Hydrometeorological Precursors, Journal of Water and Climate

Change, IWA Publishing, 12 (6): 2774–2796, https://doi.org/10.2166/wcc.2021.062.

Pal Manali, and Rajib Maity, Assimilation of Remote Sensing based Surface Soil Moisture to Develop a Spatially Varying Vertical Soil Moisture Profile database for entire Indian Mainland, Journal of Hydrology, Elsevier, 601, https://doi.org/10.1016/j.jhydrol.2021.126807

Conference publications

Das, Jew; **Umamahesh, Nanduri**; Jha, Srinidhi; Analysing the Return Period and Risk under the Influence of Physical Covariates on Hydrological Extreme, EGU General Assembly April 2021.

Lav Kumar Gupta, **P. Anand Raj and Manish Pandey**, The Effects of Emergent Vegetation in Hydrodynamic Free-Surface Flow: A Research Review, International E-conference on Water Source Sustainability (ICWSS21), 18-20 June 2021, IIT Roorkee, India.

G.S. Kumar, **V. Ramana Murty**, Lambutre Mahesh and **J. Rakesh Pillai**, Influence of Soil-Cement Columns on Load-Deformation Behaviour of Soft Clay, Problematic Soils and Geoenvironmental Concerns, Lecture Notes in Civil Engg., Vol.88, Springer, Singapore.

Khatri, K., Ansari, M.T., **Vishnu, R.**, and **Chowdary, V**., Evaluation of Fourier transform infrared spectroscopy indices to explain the rutting susceptibility of rejuvenated recycled blends. 13th International Conference on Transportation Planning and Implementation Methodologies for Developing Countries, Mumbai, India, December 10 to 11, 2020.

Kumar K, **Shashi M, and Venkata Reddy K,** RCC Structural deformation and damage quantification using Unmanned Aerial Vehicle Image Correlation (UAVIC), Unmanned Aerial Systems and Geomatics - 2021, IIT Roorkee, 02-04 April, 2022.

Ayyappa Reddy A, **Shashi M,** Algal Bloom Detection Using UAV Imagery: A Case Study on Waddepally Lake, Warangal, Unmanned Aerial Systems and Geomatics - 2021, IIT Roorkee, 02-04 April, 2021.

C. Murali Krishna, **Tezeswi P. Tadepalli**, "Decision support tool for Blast Mitigation", Virtual Conference on Disaster Risk Reduction VCDRR 2021, Springer.

Veldhandi Saisanjay, **Umesh Basappa,** Analytical Solution for Nonlinear Static Bending Analysis of Functionally Graded Nano beam. Virtual International Conference on Sustainable Building Materials and Construction (ICSBMC-2021), 4 – 6th February 2021, NIT Surat, India.

Manish Pandey, Scour around submerged spur dikes: an experimental study, Hydro 2021, NIT Surat, India.

Kadali, B. R., Gadiraju, S.S.S.R., and Gaddam, H.K. Analysis of Travellers Risk Perceptions about Public Transit Systems during COVID-19 Pandemic-TRAM-22-01831, 101th TRB Annual Meeting

Praveen, M., and **Kadali, B. R**. Study of Factors to Be Motivated to Use Ride Hail Services in Mixed Traffic Conditions. (TRBAM-22-01193), 101th TRB Annual Meeting.

Palagiri, H., **Pal, M.**, Maity, R. Drought Monitoring using Satellite Soil Moisture Data over Godavari Basin, India, Paper ID-72, 26th International Conference on Hydraulics, Water Resources and Coastal Engineering (HYDRO 2021)

Pal, M., Rajib Maity, J.V. Ratnam, M. Nonaka, and S. K. Behera, Evaluation of Machine Learning algorithms for long-lead forecasting of ENSO Modoki Index, AGU Fall Meeting, Abstract ID# 885820, December 13-17, **2018,** New Orleans LA, USA

Funded Research Projects **(Total : Rs. 4.84 Crores)**

PI: **Dr. K Venkata Reddy**, Co-PI: **Prof. N V Umamahesh**, **Prof. Deva Pratap** and **Dr. M. Shashi** , IWMM- BIS "Integrated Water Management Model for BIS Countries Under Climate Change Scenarios, BRICS-DST, Duration-3 years, Rs. 39 Lakhs.

PI: **Prof. N V Umamahesh,** Co-PI: **Dr. K Venkata Reddy,** Short and Medium Range Flood Forecasting System for Godavari River Basin using Ensemble Weather Forecast, Monsoon Mission-II Project, Indian Institute of Tropical Meteorology, Pune, MoES, IITM/MM-

II/NIT/2018/IND-6/Sanction Order dated 27.7.2018, Duration-3 years, Rs. 53.95 Lakhs.

PI: **Dr. K Venkata Reddy,** Co-PI: **Prof. N V Umamahesh, Dr. M. Shashi, Prof. Deva Pratap**, A Decision Support System for Climate Change Adaptation of Chain Tank Systems of Semi-Arid Region, DST, Duration-3 years, Rs. 35.6 Lakhs.

PI: **Dr. S Venkateswara Rao**, Department of Civil Engineering, Evaluating the performance of Pavement Quality Geopolymer Concrete using Digital Image Correlation Technique, DST-SERB, Rs. 40.0 Lakhs.

PI: **Dr. Ramesh Naik**, Department of Civil Engineering, Innovative Development of White Clay and Graphene Composite Ventilation Wall Cladding Tiles to Curtail Heat Ingress, SERB/EEQ/2020/000499/Sanction Order Dated Jan 18, 2021, Rs. 45 Lakhs.

PI: **Dr. Raghuram Kadali** and Dr Saladi S.V. Subbarao, Evaluation of Transit Oriented Development (TOD) and Its Association with Travel Behaviour and Gentrification Using Big Data Analytics, GITA/DST/TWN/P-91/2021 Sanction Order Dated 24th May, 2021, Rs.46.24 Lakhs.

Nodal PIs: **Dr B Raghuram Kadali**, **Prof CSRK Prasad** and PI: Ch Ravi Shekar, CRRI, Development of Trip Generation Manual for Indian Cities, Ref No. CSIR/CRRI/NITW/-15-12-2021, Duration-2 years, Rs. 8.14 Lakhs.

PI: **Dr B Raghuram Kadali,** A study of pedestrian exposure to traffic emissions and consequences to their travel behavior, SRG/2021/002127, SERB-SRG, Duration-2 years, Rs. 28.26 Lakhs.

PI: **Dr. T. P. Tezeswi,** Co-PI: **Prof. C.B.Kameswara Rao**, Department of Civil Engineering, Non-destructive damage detection and damage quantification in composite (HAP) panels, SERB IMPRINT-2, Duration-3 years, Rs. 1.33 Crores.

PI: **Dr. S. Shankar**, Department of Civil Engineering, Performance Evaluation of Emulsified Asphalt and Cement Treated bases, SERB-DST, Duration-3 years, Rs. 30.48 Lakhs.

PI: **Dr. P. Venkateswara Rao**, Co PI: Dr. M. Srikanth, BITS Goa, Dr. Krishna Kumar, CSIR NIIST, Kerala, Dr. P. Raman, TERI, Delhi, Co-Digestion of STP secondary sludge with organic wastes in urban/peri-urban areas; process optimization scale up and field demonstration, DST, Duration-6 months, Rs. 5 Lakhs.

PI: **Dr. P. Hari Krishna** Co PIs: **Prof. TD Gunneswara Rao, Dr. Venkaiah Chowdary**, Exploring ecofriendly civil engineering techniques for disposal of plastic waste, NHAI, Duration-3 years, Rs. 19.27 Lakhs

Consultancy work details (Total : Rs. 1.34 Crores)

Major Works

Prof. C.B.Kameswara Rao & Prof. D. Ramaseshu, Proof Checking of Structural Designs for Construction of Multilevel Car Parking (MLCP) & Commercial Complex, Visakhapatnam Rs. 11.328 Lakhs.

Dr. S. Venkateswara Rao, Dr. D. Ravi Prasad & Dr. M.V.N.Siva Kumar, Kaleswaram project-Construction of Shanrampet Branch Canal System (on Ramayampet Canal) including Distributary network for irrigating an ayacut of 19452 Acres under Konda Pochamma Sagar, Siddipet District, Rs.9.44 Lakhs.

Prof. G. Rajesh Kumar, Widening and Strengthening /Reconstruction of existing pavement to Four lane with paved shoulders from Km 266.348 to Km 283.000 of Mahabubnagar-Jadcherla section of NH-167 on EPC mode in the state of Telangana, Rs. 7.08 Lakhs.

Prof. G. Rajesh Kumar, Rehabilitation and up-gradation of Machilipatnam to Avanigadda section from Km 84/550 to Km 124/200 of NH-214A (New NH-216) to two lane with paved shoulder in the state of Andhra Pradesh under NHDP -IV Through EPC (Engineering, procurement & construction), Rs. 5.31 Lakhs.

Dr. K.Gopi Krishna, Prof. T.D.Gunneswara Rao,Dr.M.V.N.Sivakumar,Prof.N.V.Ramana Rao, Major Bridge at km 412+130 from

Ghaziapur to Bhalla in the state of Uttar Pradesh, Rs. 3.54 Lakhs.

Prof. D. Ramaseshu, 25 MLD STP Project at Morena, Madhya Pradesh, Rs. 3.068 Lakhs.

Prof. T.D.Gunneswara Rao & Sri. M. Sudhakar, Soundness of the structures-Inspection of 30000 Gallons ELSR (2No.)- Head Office Building -First floor slab (old) 750 Sq.m, NB Type Quarters (slab area 150 sq.m) 1 No. Rs. 2.9736 Lakhs.

Dr.T.P.Tezeswi, Dr.M.V.N.Sivakumar & Dr.Anitha Priyadarshini, Sewage Treatment Plant (Plant Capacity: 5 MLD) At Pachkalva Gangamma Gudi, Thirumala, Rs. 2.832 Lakhs.

Prof. C.B.Kameswara Rao & Dr.T.P.Tezeswi, Proof checking of structural designs for provision of Hanger with Annexe and Warehouse for Induction of HLH Unit at AF STN DINJAN, Rs.2.36 Lakhs.

Prof. T.D.Gunneswara Rao & Dr.T.P.Tezeswi, Design of Gantry at OCP-I, CHP, Ramagundam Area-III, Rs. 2.36 Lakhs

Prof. T.D.Gunneswara Rao & Dr.M.V.N.Sivakumar, Construction of Interpretation Center and Entrance Plaza at Qutub Shahi Heritage Park**,** Hyderabad, Rs. 2.065 Lakhs

Prof. T.D.Gunneswara Rao & Sri. M. Sudhakar, Construction of New Integrated Terminal Building and Associated Worksincluding maintenance, Operation and AICMC at Vijayawada Airport, Rs. 1.888 Lakhs.

Prof. G. Rajesh Kumar & Prof. P. Ratish Kumar, Proof checking of Structural Drawings for the Yanam Hospital project, Rs. 1.77 Lakhs.

Prof. D. Ramaseshu & Prof. C.B.Kameswara Rao, Vetting of Structural Designs- PEB Steel Structure for Concor Project (Container Terminal Railway), Rs. 1.416 Lakhs.

Dr. D. Ravi Prasad & Dr. P. Ravi Prakash, Concrete mix design for manufacturing of pave blocks and chequered tiles, Rs.1.416 Lakhs.

Prof. D. Ramaseshu, Vetting of Structural designs-Int Students Hostel (ISH), University of Hyderabad, Rs.1.416 Lakhs.

Prof. P. Ratish Kumar & Dr. S. Venkateswara Rao, Proof checking of design, Premier Solar Systems (P) Ltd, Rs. 1.18 Lakhs.

Dr.T.P.Tezeswi, & Dr. Umesh Basappa, Residential Acc 40 Sailors in G+10 Storey, Chanaktbag, New Delhi, Rs. 1.06200 Lakhs.

Prof. C.B.Kameswara Rao, Proof checking of structural designs for provision of deficient in living accommodation for sailors at INS Circars, Vishakhapatnam, Rs.0.944 Lakhs

Dr.S.Venkateswara Rao & Dr. M.V.N. Sivakumar, Widening and Diversion of BT approach road to KTK OC-II and laying of BT approach road to Base Workshop, stores,and project office complex including cross drainage works at KTK OC-II Project, Bhupalpalli, Rs.0.472 Lakhs

Dr. Venkaiah Chowdary, Bituminous mix design, pavement evaluation, Tests on pavement materials, Rs.0.89 Lakhs.

Dr. V. Ramana Murty., Technical report for new substation site leveling with Flyash and laying cable and drainage lines within the flyash fill, Rs. 0.45 Lakhs.

Dr. V. Ramana Murty., Technical report for 2-lane bridge across Gorrepeta vagu, Manuguru, SCC Ltd., Manuguru, Rs.0.45 Lakhs.

Dr. V. Ramana Murty.,Technical report for Uddaman water supply project, Srikakulam District. Rs.0.47 Lakhs.

Dr. V. Ramana Murty., Technical Report on Pile capacity calculation for WP structures, Director General Navel Project, Visakhapatnam., Rs. 1.53 Lakhs.

Dr. V. Ramana Murty., Technical report on diversion of Vattivagu & GI Bunker construction at Goleti, SCC Ltd. Bellampalli, Rs.0.49 Lakhs.

Prof. C.S.R.K. Prasad, Dr. Venkaiah Chowdary, Dr. K.V.R. Ravi Shankar, Dr. S. Shankar, Dr. Arpan Mehar, Dr. R. Vishnu, and Dr. K.B. Raghuram, Nadikudi – Sri Kalahasti New Broad Gauge Line Project –

Testing of Blanketing Materials as per RDSO - GE0014 Specifications from Ch. 74200 m to Ch. 98000 m in Reach – IV between Ext Gundalakamma and Pro Darsi Stations – Testing of the Blanketing Material, sponsored by South Central Railway, Guntur, Andhra Pradesh, Rs 0.295 Lakhs, March 2021.

Prof. C.S.R.K. Prasad, Dr. Venkaiah Chowdary, Dr. K.V.R. Ravi Shankar, Dr. S. Shankar, Dr. Arpan Mehar, Dr. R. Vishnu, and Dr. K.B. Raghuram, Conversion of Track from MG to BG between Khandawa to Amalakhurd Stations – Execution of Earthwork in Embankment/Cutting, Blanketing to GE-14 Specifications of RDSO between Khandawa and Jirwan Stations in Maharashtra state (Reach-1) – Designing the Blanketing Material, sponsored by South Central Railway, Akola, Maharashtra, Rs 0.295 Lakhs, March 2021.

Prof. C.S.R.K. Prasad, Dr. Venkaiah Chowdary, Dr. K.V.R. Ravi Shankar, Dr. S. Shankar, Dr. Arpan Mehar, Dr. R. Vishnu, and Dr. K.B. Raghuram, Railway Formation for the Bew BG Third Line between Manadamarri and Sirpur Khagaznagar Stations (Reach-IV) in Telangana State to Carry Heavy Axle Load – Designing the Blanketing Material to GE-0014 Specifications of RDSO sponsored by South Central Railway, Kazipet, Telangana, Rs 0.295 Lakhs, March 2021.

Patents (Filed, Published, Granted and Licensed)

) Filed

C.B. Kameswara Rao, D. RamaSeshu, T.D.Gunneswara Rao and Ch.Manjula, Prefabricated Mesh as Longitudinal Core Reinforcement in RC Members, No. 202041003566 A (Filed).

C.B. Kameswara Rao, D. RamaSeshu, D.Karthik and A.Saraswathi, A Novel Means of Anchorage for Reinforcing Bars in Reinforced Concrete Members, No. 202041005177 A (Filed).

R. Ramesh Nayaka, U. Johnson Alengaram, MohdZamin Jumaat and Sumiani Yusoff, A process of Producing A Lightweight Eco-Friendly Hollow Masonry Block Devices, No. PI2020002945 (Filed).

Rahul V. Ralegaonkar and **Shashi Ram**, Application of co-fired blended ash for the development of bricks, No. 201721017816 (Filed).

Dr. A. Suchith Reddy and **Prof P. Rathish Kumar**, A Method And System For Assessing Sustainability of Civil Infrastructures. Application No. 202141054686 (Filed, 2021)

Books and Book Chapters

Prof P.Rathish Kumar, Department of Civil Engineering has published a book on ”Advances in Sustainable Construction Materials" by Springer Publications co-authored by Prof Sandip Chaudhary of IIT Indore and Dr S.Bhaskar Scientist SERC Chennai.

Ratish Kumar Pancharathi, M.L.V. Prasad and K.L. Radhika (2021), “Stress Block Parameters of confined Fibrous Recycled Self Compacting Concrete”, Composites Science and Technology. Emerging Trends of Advanced Composite Materials in Structural Applications, 978-981-16-1687-7, 498865_1En, (Chapter 8), Springer (Nature) Publishers

Syed Abu Sayeed Mohammed and **Arif Ali Baig Moghal** (2021). Nanomaterials-Based Solidification/Stabilization of metal-contaminated soils. Editor(s): Abdellatif Amrane, Dinesh Mohan, Tuan Anh Nguyen, Aymen Assadi; Nanomaterials for Soil Remediation. Amsterdam, Netherlands, pp. 385-407. ISBN:978-0-12-822891-3.https://doi.org/10.1016/B978-0-12-822891-3.00018-9 (BOOK CHAPTER - SCOPUS Indexed)

Nirbhay Narayan Singh, Y Sudheer kumar, **Hari Krishna P** (2021): Desiccation Induced Cracking Characteristics of Locally Available Soils in Warangal, Lecture Notes in Civil Engineering, Springer Singapore

Padavala Hari Krishna and Adla Nandini (2021): Influence of Sand on the Behavior of Buffer Material Used for the Nuclear Waste Disposal, Advances in Sustainable Construction and Resources Management, Lecture Notes in Civil Engineering, Springer Singapore

Conferences, workshops, FDPs, Webinars organized

Prof. N.V.Ramana Rao, AICTE Sponsored Two Week online Faculty Development Program (FDP) on Advanced Computing in Civil Engineering (ACCE) (16-Nov-2020 to 28-Nov-2020) Series-1 Advanced Computational tools in Structural Modelling and Analysis & Transportation and Traffic systems.

Prof P. Rathish Kumar- Lecture session on Durability and Sustainability-Confluence and Juxtaposition at the Five Day Online FDP on Recent Trends and Research Scope in Civil Engineering during 6-10, July 2020

Prof P. Rathish Kumar- Lecture on Condition Assessment and Rehabilitation of Concrete Structures in the One Week Online FDP on Advances in Concrete Science and Technology for Sustainability (ACSTS) during 13-18 July 2020

Prof P. Rathish Kumar- Keynote Lecture on Performance and Assessment of Sustainable Concrete Making Materials at the Six Day Online FDP on Modern Materials & Structural Systems for Resilient and Sustainable Infrastructure, 21-26 September 2020 at T.K.M. College of Engineering, Kollam, Kerala

Prof P. Rathish Kumar-Keynote Lecture on Sustainable Concrete Making Materials at the Five Day Online FDP on Sustainable Materials for Smart Cities: Challenges and Recent Trends 21-25 September 2020 at S.R.University, Warangal.

Prof. P.Ratish Kumar, AICTE Sponsored Two Week online Faculty Development Program (FDP) on Advanced Computing in Civil Engineering (ACCE) (16-Nov-2020 to 28-Nov-2020) Series-1 Advanced Computational tools in Structural Modelling and Analysis & Transportation and Traffic systems.

Prof. N V Umamahesh., Invited keynote on "Urban Flood Modelling", AICTE sponsoredFDP on Advanced Computing in Civil Engineering organized by VNR Vignana JyothiInstitute of Engineering and Technology, 23rd Feb 2021.

Prof. N V Umamahesh., Invited lecture on "Modelling Impact of Climate Change on Water Resources", FDP on Recent Trends and Advances of Thrust Areas of Research in Civil Engineering organized by Reva University, Bangalore, 2nd March 2021.

Prof. N V Umamahesh., Invited talk - "Modelling Impacts of Climate Change", FDP on "Research Prospects in Water Resources and Environmental Engineering, 15th September 2020.

Prof. N V Umamahesh, invited lecture on "Simulation Modelling" in AICTE Training and Learning (ATAL) FDP on "Engineering Optimization Techniques and its Applications (ENOTAA-2021)" held during 14-18 June, 2021 at College of Engineering, Aurangabad Prof. N V Umamahesh, invited talk on "Sustainable Urban Water Management under Changing Climate", Civil Tech Talk organized by Telangana Academy of Skill and Knowledge (TASK) on 27 April, 2021

Prof. N V Umamahesh, invited talk on "Modelling Impact of Climate Change on Water Resources", FDP on Recent Trends and Advances of Thrust Areas of Research in Civil Engineering organized by Reva University, Bangalore on 2 March, 2021

Prof. N V Umamahesh, invited talk on "Urban Flood Modelling", AICTE sponsoredFDP on Advanced Computing in Civil Engineering organized by VNR Vignana JyothiInstitute of Engineering and Technology, 23.02.2021

Prof. C.S.R.K.Prasad, AICTE Sponsored Two Week online Faculty Development Program (FDP) on Advanced Computing in Civil Engineering (ACCE) (16-Nov-2020 to 28-Nov-2020) Series-1 Advanced Computational tools in Structural Modelling and Analysis & Transportation and Traffic systems.

Prof. C.S.R.K.Prasad, AICTE Sponsored Two Week online Faculty Development Program (FDP) on Advanced Computing in Civil Engineering (ACCE) (16-Nov-2020 to 28-Nov-2020) Series-1 Advanced Computational tools in Structural Modelling and Analysis & Transportation and Traffic systems.

Prof. CSRK Prasad, Dr. Venkiah Chowdhary, Dr.S.Shankar, Transportation Engineering Industry Expert Talks (TEIET-2020), sponsored by TEQIP-III

Prof. CSRK Prasad, Dr.Raghuram Kadali, A Five Day FDP on Road Safety Issues and Challenges, sponsored by TEQIP-III, December 07-11, 2020.

Prof. G. Rajesh Kumar, Dr. S. Shankar, and Prof. C.S.R.K. Prasad. A Three-Day Executive Development Programme on "Planning, Design, and Construction of Culverts and Bridges" Organized for Panchyat Raj Engineers, Sponsored by National Rural Infrastructure Development Agency, Ministry of Rural Development, during 11/03/2021-13/03/2021.

Dr. K.B. Raghuram, Dr. Arpan Mehar, and Prof. C.S.R.K. Prasad. A Three-Day Executive Development Programme on "Road Safety and Road Safety Audit for Rural Roads", Organized for Panchyat Raj Engineers, Sponsored by National Rural Infrastructure Development Agency, Ministry of Rural Development, during 01/03/2021-03/03/2021.

Prof. C.S.R.K. Prasad and Dr. B Raghuram Kadali. TEQIP-III- One week Online FDP on "Road Safety Issues and Challenges", Organized for Faculty, Students and Field engineers, Sponsored by TEQIP-III, during 07/12/2021-11/12/2021.

Dr. S. Shankar, Dr. Venkaiah Chowdary, and **Prof. C.S.R.K. Prasad**. A Three-Day Executive Development Programme on "New Technology Initiatives in Rural Roads and Use of Marginal Materials", Organized for Panchyat Raj Engineers, Sponsored by National Rural Infrastructure Development Agency, Ministry of Rural Development, during 18/02/2021-20/02/2021.

Dr. Venkaiah Chowdary, Dr. S. Shankar, and Prof. C.S.R.K. Prasad. A Three-Day Executive Development Programme on "Design of Flexible and Rigid Pavements for Rural Roads" Organized for Panchyat Raj Engineers, Sponsored by National Rural Infrastructure Development Agency, Ministry of Rural Development, during 22/02/2021-24/02/2021.

Dr. Venkaiah Chowdary, Dr. R. Vishnu, and Prof. C.S.R.K. Prasad. A Three-Day Executive Development Programme on "Quality Control, Material Testing Procedures and Laboratory Practices" Organized for Panchyat Raj Engineers, Sponsored by National Rural Infrastructure Development Agency, Ministry of Rural Development,during 25/02/2021-27/02/2021.

Dr. Deva Pratap, Invited Lecture on Remote Sensing and GIS for Groundwater Prospects in AICTE - ISTE sponsored one week online FDP on Advanced Surveying and Instruments, Department of Civil Engineering, AISSMS Polytechnic, Pune on 01.03.2021.

Dr. Deva Pratap., Invited talk- "AICTE - ISTE sponsored one week online FDP on Advanced Surveying and Instruments", Department of Civil Engineering, AISSMS Polytechnic, Pune, 1st March 2021.

Dr. V. Ramana Murty, Invited lecture on "Foundation Techniques in Expansive Soils" in online FDP on Shallow and Deep Foundations, Department of Civil Engineering, AU, Visakhapatnam on 5-2-2021.

Prof. M Chandra Sekhar. AICTE - ATAL One week Training Program "COMPOSTING TECHNOLOGIES FOR MUNICIPAL SOLID WASTE MANAGEMENT", Organized for Faculty, Students and Field engineers, Sponsored by AICTE, during 04/01/2021-08/01/2021.

Dr. V. Ramana Murty., Invited talk- "Foundation Techniques in Expansive Soils", FDP on Shallow and Deep Foundations, AU, Visakhapatnam, 5th May 2021.

Dr. Venkaiah Chowdary, 5 Day FDP - "Emerging trends in Infrastructure Projects", July 20-24,2021.

Dr.Sridhar P, Dr.P.Venkateswara Rao, Dr.C.Sumanth, Dr.Venkaiah Chowdary, 6 Day FDP-"Effective teaching & Learning Practices for Management of Solid Waste", January 18-23,2021.

Dr. Arif Ali Baig Moghal and Dr. Sudheer Kumar Yamsani. A Five Day Online Workshop on "Sustainable Engineered Waste Barrier Systems (SEWBS)" Organized for Students, faculty, researchers, Sponsored by CED, during 08/03/2021-12/03/2021.

Dr.T.P.Tezeswi, AICTE Sponsored Two Week online Faculty Development Program (FDP) on Advanced Computing in Civil Engineering (ACCE) (16-Nov-2020 to 28-Nov-2020) Series-1 Advanced Computational tools in Structural Modelling and Analysis & Transportation and Traffic systems.

Dr.T.P.Tezeswi, invited talk- " Modelling of Polymer Composites and Cementitious materials", 2 week AICTE Sponsored FDP on "Advanced Computing in Civil Engineering", Department of Civil Engineering, VNR Vignana Jyothi Institute of Engineering & Technology, 16th Nov 2020 – 28th Nov 2020.

Dr.T.P.Tezeswi, AICTE Sponsored Two Week online Faculty Development Program (FDP) on Advanced Computing in Civil Engineering (ACCE) (16-Nov-2020 to 28-Nov-2020) Series-1 Advanced Computational tools in Structural Modelling and Analysis & Transportation and Traffic systems.

K.V.R. Ravi Shankar, 2 Day FDP- "Symposium for safer roads/ Discussion on Plan for rectification of black spots, National Road Safety month 2021, Online, Ministry of Road Transport and Highways, Government of India, February 03-04, 2021.

Dr. K.V.R. Ravi Shankar., Invited talk - "Road safety in link design, alignment, roadway geometry and NMT road safety audit / Safety measures for NMT", Resource Person for Five Day Online FDP on Road Safety Issues and Challenges, Organized by NIT Warangal, 7th - 11th Dec 2020.

Dr. G Kalyan Kumar. A Five Day Online Workshop on "Computational Geomechanics – Theory and Applications to Earthquake Engineering", Organized for Students, faculty, researchers , Sponsored by CCE, during 24/08/2020-28/08/2020.

Dr. G Kalyan Kumar, Dr. Sanjit Biswas. A Five Day Online Workshop on "Finite Element Analysis of Static and Dynamic Soil-structure Interaction of Geosystems" Organized for Students, faculty, researchers , Sponsored by TEQIP-III, during 04/01/2021-08/01/2021.

Dr. P. Sridhar, Sustainable building materials, FDP program at KITS Warangal, 27-31 August 2018.

Dr. P. Sridhar, Energy economics of the AD process & design parameters/criteria for anaerobic digesters and commercial models for biogas production, FDP program at NIT Warangal, 27-31 August 2018.

Dr. R Ramesh Nayaka., Invited talk - "Sustainable Construction Materials for Affordable Housing", Online FDP on"Novel materials and Technologies for sustainable construction" at GCE Kozhikode, Kerala, 26th March 2021.

Dr. R Ramesh Nayaka., Invited talk- "Innovative building blocks for masonry construction", FDP on "Innovations in low cost construction technologies" Rajadhani Institute of Science and Technology, Palakkad, 25th feb 2021.

Dr. Manish Pandey. A Three-Day Online Training Program on "River Dynamics, Flood and Sediment Hazards Assessments in Indian Rivers", Organized for Faculty, Scholars, young researchers, Engineers and young professionals, Sponsored by National Institute

of Disaster Management (NIDM), New Delhi, during 23/08/2021-25/08/2021.

B Raghuram Kadali, SPARC- A Two day International Workshop, Concept, Theory and Practices of Road Pricing Schemes: LEssons LEarned and Way Forward" BITS-Pilani Hyderabad, 03-06-2020 to 03-07-2020.

B Raghuram Kadali, STTP, Operations Research for Business and Engineering: Concepts, Applications and Methods, Online, IIT Delhi, 14-12-2020 to 18-12-2020.

B Raghuram Kadali, 3-day Faculty Workshop on Outcome Based Education, Online-NITW, 07-07-2021 to 09-07-2021.

B Raghuram Kadali, 7-Day FDP on Universal Human Values, Online-NITW, 12-07-2021 to 20-07-2021.

B Raghuram Kadali, 5-Day FDP on Highway Development and Maintenance Investment Decision, Online, IAHE, New Delhi. 03-08-2021 to 08-08-2021.

B Raghuram Kadali, 5-Day STTP, Applications of MCDM Methods in Logistics and Transportation, NITC, 01-12-2021 to 05-12-2021.

Dr. B. Raghuram K, Role of Consumer Behaviour on Travel Behaviour Analysis, A 3-day on-line FDP on Advances in Civil Engineering, Department of Civil Engineering, Swarnandhra College of Engineering and Technology, 21-23 May 2020.

Dr. P. Ravi Prakash, Fire Safety in Structures, FDP, KPRIT Coimbatore, 15 May 2020.

Dr. P. Hari Krishna, Prof. V. Ramana Murty and Dr. Arif Ali Baig Moghal. A Six Day Online Faculty Development Program on "Effective Teaching and learning of Geotechnics for Infrastructural development (ETLGID)" Organized for Students, faculty, researchers, Sponsored by Teaching Learning Center-NIT Warangal, during 25/10/2021-30/10/2021.

Guest Talks/webinars delivered

Prof. N.V.Ramana Rao, National Webinar on "Online Education – the Opportunities and Challenges", Dr.(Smt.) Tamilisai Soundrarajan, Hon'ble Governor of Telangana as Chief Guest, Prof.N.V. Ramana Rao, Director was the Guest of Honour for Webinar held at NIT Warangal on 25th August 2020.

Prof. N.V.Ramana Rao, National Webinar on "National Education Policy-2020 (NEPCON-2020)" organized by KIIT Deemed to be University, Bhubaneswar on 29th & 30th August, 2020 over Zoom Virtual Platform. Prof. N.V. Ramana Rao, Director, NIT Warangal act as a Panel Speaker for the Webinar.

Prof. N.V.Ramana Rao, A webinar on "Challenges for Chemical Engineers in Operating Heavy Water Plants" organised by the Department of Chemical Engineering on 1st September 2020. Prof. N.V. Ramana Rao, Director, NIT Warangal as Chief Guest for the webinar.

Prof. N.V.Ramana Rao, National Webinar on "Strategies for Implementation of National Education Policy-2020 for the Technical Education" organised by NIT Warangal on 2nd September 2020. Prof. N.V. Ramana Rao, Director & Chief Patron and Eminent Speaker for the webinar.

Prof. N.V.Ramana Rao, Elsevier in collaboration with Central Library, NIT Warangal organised a Webinar on "Research Simplified with Elsevier: Plan Effectively, Read Quality, Publish Quality" held on 8th September 2020. Prof. N.V. Ramana Rao, Director, NIT Warangal as Chief Guest for the webinar.

Prof. N.V.Ramana Rao, International continuous Professional Development (CPD) webinar series on "Sustainable Practices and Advancements in Civil Engineering (SPACE 2020)", organised by Chaitanya Bharathi Institute of Technology, Hyderabad in association with Contractors Development Institute (CDI-NAC) during 9-9-2020 to 13-9-2020.

Prof. N.V.Ramana Rao, Webinar series organised by TASK Telangana 'Civil Tech Talks' Prof. N.V. Ramana Rao, Director, NIT Warangal as Chief Guest and delivered Inaugural address speaker on 15th September 2020.

Prof. N.V.Ramana Rao, A Webinar organised by FICCI Telangana State Council in Association with Telangana State for Higher Education on 'National Education Policy 2020' A Game Changer for Telangana, on 19th September, 2020, as Speaker during the Valedictory Session.

Prof. P. Rathish Kumar, Keynote Address on "Sustainable Materials and Life Cycle Assessment of Blended Cements in the Indian Context", Research Conclave 2021, Organized by the Research and Innovation Council of REVA University 16th -17th December 2021.

Prof. P. Rathish Kumar, Invited talk, "Material Characterisation and Development of Sustainable Repair Mortars for Repair of Heritage Structures" ATAL AICTE Five Day Faculty Development Program on Innovation in Civil Engineering Materials & Techniques for Sustainable Development (ICEMTSD – 2021) organised by Department of Civil Engineering, NIT Silchar, Nov 2021.

Prof. P. Rathish Kumar, Invited Keynote Lecture delivered on "Key Indicators and Criteria for Assessment of Sustainable Building Materials" in the Three days International Conference on Recent Advances in Civil Engineering (ICRACE-2021) organised by Department of Civil Engineering, NIT Silchar.

Prof. P. Rathish Kumar, Invited Lecture on "Sustainable Construction Technology" at AICTE Training and Learning program (ATAL) Academy held between 26-07-2021 to 30-07-2021 at Indian Institute of Technology Indore.

Prof. P. Rathish Kumar, Invited Lecture on "Structural Assessment Repair and Rehabilitation of Structures", at Sri Krishna College of Engineering and Technology, Coimbatore, in online Two week AICTE Sponsored faculty development program held between 24-05-2021 to 05-06-2021.

Prof. P. Rathish Kumar, Invited Lecture on "Microstructure Characterization and Exploring Repair Material for a 800 Year Old Heritage Structure" in the One Week AICTE Sponsored STTP on "Repair, Rehabilitationand Retrofitting Techniques of Reinforced Concrete Structures (Phase-III), on 3rd July 2021, organized by the Department of Civil Engineering, Srinivasa Ramanujan Institute of Technology, Anantapuram.

Prof. P. Rathish Kumar, Invited Talk on "Repair and Rehabilitation of Structures" in the One Week AICTE Sponsored STTP on "Repair, Rehabilitation and Retrofitting Techniques of Reinforced Concrete structures." Phase-II, on 31st May 2021, organized by the Department of Civil Engineering, Srinivasa Ramanujan Institute of Technology, Anantapuram.

Prof. P. Rathish Kumar, Keynote lecture on "Development of framework for sustainable materials assessment – Way forward", in session-4 at the International Conference on "Sustainable Approach For Resilient Infrastructure (IC-SAFRI2021)" on 27-06-2021, Organised by Department of Civil Engineering, CBIT Hyderabad and Jointly with Centre for Innovative ConstructionTechnology (CICT), Department of Civil Engineering, University of Malaya, Kuala Lumpur (Malaysia).

Prof. P. Rathish Kumar, Expert Lecture on "Selection of Sustainable Materials and Techniques for Repair and Rehabilitation of Structures" in the One Week AICTE Sponsored STTP on "Condition Evaluation and Strengthening of Concrete structures." Phase-2, on 4th June 2021, organized by the Department of Civil Engineering, Srinivasa Ramanujan Institute of Technology, Anantapuram.

Prof. P. Rathish Kumar, Expert Lectures on Condition Assessment and ND Evaluation of Structures on 29th April 2020, Repair Methodology- Materials, Strategies and Method on 30th April 2020 and Rehabilitation and Strengthening of Concrete Structures on 1st May 2020 in the webinar series organised on Repair and Rehabilitation of Concrete Structures at Department of Civil Engineering,

Sree Chaitanya College of Engineering, Karimnagar in Association with ACCE (I)

Prof. P. Rathish Kumar- Special lecture on Materials and Techniques for Repair, Rehabilitation, and Retrofitting of Structures in the One Week Online Faculty Development Programme on Advances in Structural and Construction Engineering (ASCE) towards Sustainable Built Environment during 13- 18 July 2020 at Kakatiya Institute of Technology and Science, Warangal.

Prof P. Rathish Kumar, expert lecture on Key Sustainable Indicators in the One-week online QIP, Short Term Course on Sustainable Construction Practices by the Department of Civil Engineering, Indian Institute of Technology Indore on 16th October 2020

Prof P. Rathish Kumar Keynote lecture on Condition Assessment and Non-Destructive Evaluation of Concrete in the One Week online STTP on "Earthquake Analysis of Tall Buildings", 6-12 August 2020 at Srinivasa Ramanujan Institute of Technology.

Dr. P. Rathish Kumar, Keynote lecture on "Development of framework for sustainable materials assessment – Way forward", in session-4 at the International Conference on "Sustainable Approach For Resilient Infrastructure (IC-SAFRI2021)" on 27-06-2021, Organised by Department of Civil Engineering, CBIT Hyderabad and Jointly with Centre for Innovative ConstructionTechnology (CICT), Department of Civil Engineering, University of Malaya, Kuala Lumpur (Malaysia)

P. Rathish Kumar, Invited Talk on "Selection of Sustainable Materials and Techniques for Repair and Rehabilitation of Structures" in the One Week AICTE Sponsored STTP on "Repair, Rehabilitation and Retrofitting Techniques of Reinforced Concrete structures." Phase-I, on 30th April 2021, organized by the Department of Civil Engineering, Srinivasa Ramanujan Institute of Technology, Anantapuram.

P. Rathish Kumar, Expert Lecture on Concrete Mix Proportioning-Durability and Sustainability Issues in the Three-Day Executive Development Program on Planning, Design and Construction of Culverts and Bridges sponsored by NRIDA, Ministry of Rural Development, Government of India during11-13 March 2021.

P. Rathish Kumar, Keynote lecture on Condition Assessment and Revision on Non-Destructive Assessment of Structures in the Five-Day Online Faculty Development Programme on "Recent Trends and Advances of Thrust Areas of Research in Civil Engineering" During 1st - 5th March 2021, Department of Civil Engineering, REVA University.

P. Rathish Kumar, Invited Talk on "Selection of Sustainable Materials and Techniques for Repair and Rehabilitation of Structures" in the One Week AICTE Sponsored STTP on "Condition Evaluation and Strengthening of Concrete structures." Phase-2, on 4th June 2021, organized by the Department of Civil Engineering, Srinivasa Ramanujan Institute of Technology, Anantapuram.

Prof. N V Umamahesh., Invited talk - "Operational Flood Forecasting using Ensemble Weather Forecasting - A Review", Workshop on Use of Products from Ensemble Prediction Systems organized by National Centre for Medium Range Weather Forecast (NCMRWF), 21st Jan 2021.

Prof. N V Umamahesh., Invited talk- "Sustainable Urban Water Management under Changing Climate", Civil Tech Talk organized by Telangana Academy of Skill and Knowledge (TASK), 27th April 2021.

Prof. N V Umamahesh., Invited talk- " Modelling Impact of Climate Change on Water Resources", TEQIP Online - STTP on "Advanced Technologies in Water Resources Management (ATWARM-2020)" organized by Department of Civil Engineering, Government College of Engineering Aurangabad (Maharashtra State), 26th November 2020.

Prof. N V Umamahesh., Invited keynote on "Fuzzy Logic and Fuzzy Systems", AICTE Sponsored One Week Online Short Term Training Program on Soft Computing Techniques in Civil Engineering: Water Resources, Structures and Transportation Applications, 23rd July 2020.

Prof. N V Umamahesh, invited talk on "Operational Flood Forecasting using Ensemble Weather Forecasting - A Review" in the Workshop on Use of Products from Ensemble Prediction Systems organized by National Centre for Medium Range Weather Forecast (NCMRWF) on 21.01.2021

Prof. G. Rajesh Kumar., "Concrete from Grey to Green",Advancement in Materials & Techniques for Global Construction Industry, Indus University, 30th April 2021.

Prof. G. Rajesh Kumar., "Concrete from Grey to Green", Recent Developments in Concrete Technology: Sustainability of Modern and Hybrid Composites, Marwadi University, 5th March 2021.

Prof. G. Rajesh Kumar., "Special Concretes in sustainable construction", International Online training programme on Sustainability and Advances in Built Environment, Middle East College, Oman, Muscat, 22nd Dec 2020.

Prof. G. Rajesh Kumar., "Special Concrete in sustainable construction", International Online training programme on Sustainability and Advances in Built Environment, Middle East College, Oman, Muscat, 27th June 2021.

Prof. G. Rajesh Kumar, Invited talk on 'Special Concrete in sustainable construction', International Online Training Program for Graduating and Alumni Students on "Sustainability and Advances in Built Environment" (SABE-2020), Department of Civil Engineering, Middle East College (MEC), Sultanate of Oman 22-Dec 2020.

Dr. V. Ramana Murty, Invited speaker on"Geotechnical Aspects and Investigations" in the second International Online Training Programme for Graduating and Alumni Students on "Sustainability and Advances in Built Environment" (SABE-2021)" organized by Department of Civil Engineering, Middle East College, Al Rusayl, Sultanate of Oman on 23-12-2020.

Dr. V. Ramana Murty, Invited lecture on "Stabilisation Methods for Low Volume Roads" in web seminar: PMGSY on 18-2-2021.

Dr. V. Ramana Murty, Invited lecture on "Properties of soils for Pavements" in web seminar: PMGSY on 25- 2-2021.

Dr. V. Ramana Murty, Invited lecture on "Geotechnical Case Studies" in online STPP on Repair, Rehabilitation and Retrofitting Techniques of Reinforced ConcreteStructures, Dept. of Civil Engineering, Srinivasa Ramanujan Institute of Technology, Anantapuramu, A.P. on 28-6-2021.

Dr. V. Ramana Murty., Invited talk - "Geotechnical Aspects and Investigations", Second International Online Training Programme for graduating & alumni students on 'Sustainability and Advances in Built Environment'(SABE-2020), 23rd Dec 2020.

Dr. V. Ramana Murty., Invited talk- "Stabilization Methods for Low Volume Roads", In web Seminar, PMGSY, 18th Feb, 2021.

Dr. V. Ramana Murty., Invited talk - "Properties of soils for Pavement Design", In web Seminar, PMGSY, 25th feb 20221.

Dr. V. Ramana Murty., Invited talk - "Case Studies in Geotechnical Engineering", STTP on 'Repair, Rehabilitation & Retrofitting Techniques of Reinforced Concrete Structures , Srinivasa Ramanujan Institute of Technology (SRIT), Anantapuramu, 28th June 2021.

Dr. P. Hari Krishna, invited talk on "Importance of Geotechnical Engineering in Civil Engineering applications, Telangana Academy for Skill and Knowledge (TASK) in association with NIT Warangal and Smart InfrEST, on 9th February 2021.

Dr. P. Hari Krishna, invited talk on "Value Education - Its Importance in modern education, Forum for Science and Spirituality Discourses on 25th November 2020.

Dr. Venkaiah Chowdary, Invited talk- "Performance Grade Specifications for Polymer Modified Bitumen" 47th Webinar Lecture of Indian Geotechnical Society Guntur, Organized by Malineni Perumallu

Educational Society's Group of Institutions, Guntur, Andhra Pradesh,15th July 2021.

Dr. Venkaiah Chowdary, Invited talk- "Zero Shear Viscosity: An Alternate Rutting Parameter",AICTE Sponsored Six Days Short Term Training Program (Phase-1) on "Recent Advances in Pavement Material Testing and Design", Organized by Misrimal Navajee Munoth Jain Engineering College, Chennai, Tamil Nadu, 19th Aug 2020.

Dr. Venkaiah Chowdary, Invited talk- "Road Safety in Work Zones" TEQIP III Sponsored Online Faculty Development Programme on "Road Safety Issues and Challenges", Organized by National Institute ofTechnology, Warangal, Telangana, 11thDec,2020.

Dr. Venkaiah Chowdary., Invited talk- "Superpave Asphalt Mix Design",AICTE-ISTE Sponsored Refresher Programme (Series-I)on "Recent Practices in Construction and Design of Flexible and Rigid Pavements", Organized by Hyderabad Karnataka Education Society's Poojya Doddappa Appa College of Engineering, Kalaburagi, Karnataka, 24th Dec 2020.

Dr. Venkaiah Chowdary., Invited talk- "Comparison between Marshall and Superpave Mixtures and Problems", AICTE-ISTE Sponsored Refresher Programme (Series-I) on "Recent Practices in Construction and Design of Flexible and Rigid Pavements", Organized by Hyderabad Karnataka Education Society's Poojya Doddappa Appa College of Engineering, Kalaburagi, Karnataka, 24th Dec 2020.

Dr. Venkaiah Chowdary., Invited talk - " Road Safety during Construction", National Rural Infrastructure Development Agency Sponsored Three-Day Executive Development Programme on "Road Safety and Road Safety Audit for Rural Roads", Organized by National Institute of Technology, Warangal, Telangana, 3rd March 2021.

Dr. Venkaiah Chowdary., invited talk- "Superpave Asphalt Mix Design", AICTE-ISTE Sponsored Refresher Programme (Series-II) on "Recent Practices in Design and Construction of Flexible and Rigid Pavements", Organized by Hyderabad Karnataka Education Society's Poojya Doddappa Appa College of Engineering, Kalaburagi, Karnataka, 21st March 2021.

Dr. Venkaiah Chowdary., Invited talk - "Comparison between Marshall and Superpave Mixtures and Problems", AICTE-ISTE Sponsored Refresher Programme (Series-II) on "Recent Practices in Design and Construction of Flexible and Rigid Pavements", Organized by Hyderabad Karnataka Education Society's Poojya Doddappa Appa College of Engineering, Kalaburagi, Karnataka, 21st march, 2021.

Dr. Venkaiah Chowdary., Invited talk- "Superpave Asphalt Mix Design", AICTE-ISTE Sponsored Refresher Programme (Series-III) on "Recent Practices in Design and Construction of Flexible and Rigid Pavements", Organized by Hyderabad Karnataka Education Society's Poojya Doddappa Appa College of Engineering, Kalaburagi, Karnataka, 23rd may 2021.

Dr. P. Venkateswara Rao, Planning, Designing, Monitoring and inspection of wastewater treatment systems, AP HRDI - Bapatla -Residential Training Programme for engineers.

Dr. P. Venkateswara Rao, Global climate change and its Impacts, Kakatiya University, Warangal. o Dr. P. Venkateswara Rao, Introduction to Environmental Impact Assessment, L&T Engineers, Khammam.

Dr. Arif Ali Baig Moghal, Delivered Lecture for a 5 Day Faculty Development Program on "Recent Advancements in Geotechnical and Transportation Engineering" (RAGTE) titled "Role of Compaction Delay in Pavement Considerations" through Microsoft Teams Platform on 21 June 2021 (2.00 PM to 3.30 PM IST). Host Institute: Gudlavalleru College of Engineering Krishna District, Andhra Pradesh.

Dr Arif Ali Baig Moghal., Invited talk- "Quantifying Compaction Delay for Plastic and Non-Plastic Fines with Additives - Pavement Consideration", TKM College of Engineering, Kollam, Kerala. Program sponsored by TEQIP-II, 1st September 2020.

Dr Arif Ali Baig Moghal., Invited talk- "Compaction Delay Effect on Stabilized Plastic Fines", CVR College of Engineering, Hyderabad, India, 10th Oct 2020.

Dr Arif Ali Baig Moghal., Invited keynote- "Understanding the Heavy Metal Retention Behaviour of Chemically Stabilized Semi-Arid Soils", Pandit Deendayal Petroleum University, Gandhinagar, India, 20th feb 2021.

Dr Arif Ali Baig Moghal., Invited talk- "Heavy Metal Retention Behaviour of Lime Amended Semi-Arid Soils", SEWBS 2021, 11th March 2021.

Dr Arif Ali Baig Moghal., Invited lecture on "Role of Compaction Delay in Pavement Considerations", Gudlavalleru College of Engineering Krishna District, Andhra Pradesh, 21st June 2021.

Dr. Arif Ali BaigMoghal, Geotechnical Challenges and Stability Requirements in the Design of Landfills, AMS College of Engineering, Avadi, Chennai, 27 April 2020.

Dr. Arif Ali BaigMoghal, Prospective Research Thrust Areas in Geotechnical and Geo-environmental Engineering, Gudlavalleru College of Engineering, Krishna District, Andhra Pradesh, 27 May 2020.

Dr Arif Ali Baig Moghal, Delivered invited talk titled "Compaction Delay Effect on Stabilized Plastic Fines" for "International Conference & Exposition on Mechanical, Material and Manufacturing Technology (ICE3MT2020)" through Zoom Platform on 10 October 2020 (9.15 to 11.15 AM IST). Host Institute: CVR College of Engineering, Hyderabad, India.

Dr.T.P.Tezeswi, invited talk- "ANN for Structural Health Monitoring of Structures" AICTE Sponsored One week Online STTP on "Applications of Neuro-Fuzzy Techniques in Civil Engineering", 9th to 14th November, 2020, Department of Civil Engineering, MVSR Engineering College, Nadergul, RR Dist.

Dr. M. Shashi., Invited talk- "Advanced Surveying Instruments and Techniques", AISSMS's Polytechnic, Pune -411001, 24thfeb - 2nd March 2021.

Dr.D.Ravi Prasaad., Invited talk - "Hybrid fiber reinforced concrete-Development and properties", One Week Online Mode Faculty Development,Program from 29th June to 3rd July, 2020.

Dr.D.Ravi Prasaad., Invited keynote- "Condition Assessment of Engineering Structures- Case Studies", Webinar titled "Latest Materials & Methods for Structural Engineering" organised by Siddharth Nagar, Narayanavanam Road, Puttur – 517583, Chittoor District, A.P. 6th June 2021.

Dr.D.Ravi Prasaad., Invited talk - "Hybrid fiber reinforced concrete-Development and properties", One week Faculty Development Program on "Recent Advancements in Special Concretes, 29th september 2020.

Dr.D.Ravi Prasaad., Invited talk - "Healt monitoring of Civil Engineering structures-NDT", Webinar organised by Chaitanya Engineering college, Visakhapatnam, 18th june 2020.

Dr. K.V.R. Ravi Shankar., Invited talk- "Pedestrian Safety Challenges in Indian Traffic Conditions", Resource Person", One Week Online Faculty Development Program on "Innovations in Civil Engineering", gudlavalleru engineering college, Andhra Pradesh, 23rd March 2021.

Dr. K.V.R. Ravi Shankar., Invited talk - "Accident Data Collection and Analysis and Safer Road Design", Resource Person on the topics, Three Day Executive Development Programme on Road Safety & RSA for Rural Roads, Organized by NIT warangal, Sponsored by NRIDA, Ministry of Rural Development, GOI, New Delhi, 1st-3rd March,2021.

Dr. K.V.R. Ravi Shankar., invited talk - "Road Safety And The Role Of Stakeholders: Future Directions",One Week International Student & Faculty Development Program, Shri Vishnu Engineering College for Women(A) in Association with Indian Concrete Institute, 26th feb 2021.

Dr. K.V.R. Ravi Shankar., Invited talk- " Neuro Fuzzy Applications in Transportation Engineering", AICTE Sponsored One week STTP (online) on Applications of Neuro-Fuzzy Techniques in Civil Engineering (Series 2), Maturi Venkata Subba Rao (MVSR) Engineering College, Hyderabad, 11th Dec 2020.

Dr. K.V.R. Ravi Shankar., Invited talk - "Neuro Fuzzy Applications in Transportation Engineering", AICTE Sponsored One week Online STTP on Applications of Neuro-Fuzzy Techniques in Civil Engineering, 9th- 14th November 2020.

Dr. K.V.R. Ravi Shankar., Invited talk - "Road Safety Design Challenges in Indian Mixed Traffic Conditions", AICTE Sponsored One Week Online Short-Term Training Programme (STTP) on "Advanced Technologies in Transportation Engineering and Town Planning" at Coimbatore Institute of Technology, Coimbatore, 25th sep 2020.

Dr. K.V.R. Ravi Shankar., Invited talk - "Pedestrian Safety Considerations'',AICTE Sponsored One Week Online Short Term Training Program (STTP) on "Emerging Tools for Design and Analysis of Sustainable Roads (ETDASR 2020) Series 2 : Computational tools used in the development of sustainable road materials and traffic systems , VNR Vignana Jyothi Institute of Engineering and Technology during, 26th Aug 2020.

Dr. K.V.R. Ravi Shankar., Invited talk - " Safer Roads by Design'', AICTE Sponsored One Week Online Short Term TrainingProgram (STTP) on "Emerging Tools for Design and Analysis of Sustainable Roads(ETDASR 2020), VNR Vignana Jyothi Institute of Engineering and Technology during, 28th July 2020.

Dr. K.V.R. Ravi Shankar., Invited talk - "Road Safety Considerations For Indian Traffic Conditions", Organised by Nalla Narasimha Reddy Education Society's Group of Institutions, Hyderabad, 18th July 2020.

Dr. K.V.R. Ravi Shankar., Invited talk - "Intelligent Transportation Systems", Organized by IGS student chapter, VR Siddhartha Engineering College, Vijayawada, Andhra Pradesh, 7th July 2020.

Dr. K.V.R. Ravi Shankar., Invited talk- "Best Practice for Planning and Design of Safer Roads", Organized by Kkr & Ksr Institute Of Technology & Sciences, Guntur, Andhra Pradesh, 2nd July 2020.

Dr. K.V.R. Ravi Shankar., Invited talk - "Intelligent Transportation Systems for mobility and safety", one week online faculty development program on Infrastructure challenges and future scenario in Civil Engineering: a global perspective, sri venkateswara college of engineering and technology, srikakulam, Andhra pradesh, 17th June 2020.

Dr. K.V.R. Ravi Shankar., Invited talk- "Road Safety Challenges for Indian Mixed Traffic Conditions", Three day online STTP on Safety Measures in Transportation Systems, Muthoot Institute of Technology & Science, Kerala, 27th May 2020.

Dr. K. Gopikrishna, Invited Talk- "" Concept and Application of Weighted Residual Finite element method",AICTE sponsored online Short-Term Training Programme(STTP) on "Advances in Finite Element Methods for Industry & Research Applications", 23rd to 28th November 2020, Department of Civil engineering, Vasavi College of engineering, Hyderabad.

Dr. K. Gopikrishna, Invited Talk- "Importance of R factor in seismic capacity assessment of RC buildings", AICTE Sponsored STTP on Numerical & Experimental Seismic Analysis of Typical Structures, during 14th to 19th December 2020, by Department of Civil Engineering,SRIT, Ananthapur**.**

Dr. G. V. Ramana, Construction Materials for Concrete and Masonry Structures, at NITW for three-day National Workshop on Technical Skills from 28th -30th May-2019.

Dr.G.V. Ramana, Geo technical Investigations; Slope Stability for Approaches of Major bridges and flyovers, AP HRDI - Bapatla for Four Day Residential Training Programme on "Design of Bridges.

Dr. G. V. Ramana, Statistical Approach of In-Situ Shear Strength Parameters of Rock Mass, Indo-China research webinar series is jointly initiated by faculties from Shantou University, China, SVNIT, Surat & Indian Geotechnical Society Surat Chapter on Date: 8th -19th May 2020.

Dr.Chinthala Sumanth, Invited talk on "Four orders of Nature" as a Part of UHV programme conducted to Students of RGUKT Srikakulam on December 19, 2020

Dr.Chinthala Sumanth, Invited talk on " The Department of Civil Engineering, K.S.R. College of Engineering is organizing as one Week Online AICTE Sponsored STTP as "Forum on nurturing Clean-Water and Green-Waste" From 28.10.2020 to 04.11.2020 (Phase-II) through Google Meet platform.

Dr B Raghuram Kadali., Invited talk- "Role of Perceived Technology and Knowledge of maintenance on adoption of EVs", Resource Person, One Week Online Faculty Development Program on "Recent Advancements in Geotechnical and Transportations", Gudlavalleru Engineering College, Andhra Pradesh, 21-25th June 2021, 25th June 2021.

Dr. B. Raghuram K, Crash data versus Surrogate safety data for traffic safety analysis, Invited talk, Department of Civil Engineering, Terna Engineering College, 04 April 2020.

Dr. B. Raghuram K, Evaluation of Urban Commuter Travel Behaviour and its impact on traffic emissions, One Week Short Term Training Program at Department of Civil Engineering, Shri Vishnu Engineering College for Women, 25th May 2020 to 30th May, 2020.

Dr. B. Raghuram K, Urban TravelCommuters Behaviour and its Impact on Environment, E-Convention at Department of Civil Engineering, J D College of Engineering and Management, 30th May 2020

Dr. Manish Pandey., Invited talk - "Scour and Sediment Hazards in Open Channels", 3-day Online Training Program on River Dynamics, Flood and Sediment Hazards Assessments in Indian Rivers, 25th Aug 2021.

Dr. Manish Pandey., "Scour and Sediment Hazards in Natural Streams", 3-day Online Training Program on Fluvial Disasters and Strategies in Risk Reduction, 29th Oct 2021.

Dr. Manish Pandey, one-week online international training program on "Water Resources Modelling'' from 08-12 February 2021**.** Lecture 3: Hydraulics of open channel flow & turbulence study in open channel flow.
Dr. Sudheer Kumar Yamsani., Invited talk- "Seismic Slope Stability Analysis Modeling Using Geo-studio", Five Day Online Faculty Development Program on"Earthquake Geotechnics", NITAP, Tadepalliguddem, 24thSep 2020.

Dr. Sudheer Kumar Yamsani., Invited talk -"Geosynthetics for Sustainable construction", STTP lecture at Department of Civil Engineering, Kakatiya Institute of Technology and Sciences Warangal, India, 24th Nov 2020.

Dr. Sudheer Kumar Yamsani., Invited lecture- "Research Methodology, An overview", Technical lecture at ARAMBA-2021, Research and Innovation cell, Bharatiya Engineering Science & Technology Innovation University, Anantapur, India, 20th Jan, 2021.

Dr. Sanjit Biswas., Invited talk - "Finite element analysis of pile supported machine foundations", 5-day online workshop on Finite Element Analysis of Static and Dynamic Soil-structure Interaction of Geosystems. 7thJuly, 2021.

Dr. V. Vamsi Krishna, invited webinar on "Watershed Management" as part of Center of Excellence, Natural Resource Management, CMRIT Bangalore on 23-December-2020

Dr Litan Kumar Ray., Invited keynote- "Basics of hydrologic modelling and parametric study of rainfall-runoff model", Expert talk in a one week online international training programme on Water Resources Modelling organised by Center for Advanced Agricultural Science and Technology for Climate Smart Agriculture and Water Management. Mahatma Phule Krishi Vidyapeeth. Rahuri (Maharashtra), 9th Feb, 2021.

Dr. Shashi Ram, Expert lecture on "Green Buildings-Sustainable Materials for Energy Efficient Building" in the One Week Faculty Development Programme on "Recent Advances in Sustainable Development and Green Buildings (RASGB-2021)", organized by Department of Civil Engineering, Jayamukhi Institute of Technological Sciences, Narsampet, Warangal on 06th April, 2021.

Dr. Shashi Ram, Guest lecture on "Impact of Green Building Materials", organized by Department of Civil Engineering, K. L. Deemed to be University, Andhra Pradesh on 22nd May, 2021.

Dr. Shashi Ram, Invited speaker on "A step Towards Achieving Sustainable Development Goals Through Energy Efficient Buildings" in the third International Online Training Programme for Graduating and Alumni Students on "Sustainability and Advances in Built Environment" (SABE-2021)" organized by Department of Civil Engineering, Middle East College, Al Rusayl, Sultanate of Oman during 27th June - 07th July 2021.

Dr R. Ramesh Nayaka., Invited talk - "Sustainable Construction Materials for Low Cost Housing", AP HRDI - Three Day Online Programme on Cost Effective and Eco Friendly Building Materials and Technologies, Andhra Pradesh, 28th July 2021

Dr. R Ramesh Nayaka., Invited lecture on "Building Information Modelling (BIM) Approaches in Construction Projects", OneDay Webinar BVRIT Narsapur, Telangana, 24th March 2021.

Dr. R Ramesh Nayaka., Invited keynote- "Eco-Friendly Construction Materials and Practices for Affordable Housings", 3 Days workshop on Innovative Construction Materials and Practices, KL University, Vijayawada, Andhra Pradesh, 28th september 2020.

Dr. R Ramesh Nayaka., Invited keynote - "Writing a Research Article - Vital Tips for Beginners", JSS Academy of Technical Education, Bengaluru, Karnataka, 19th Aug 2020.

Dr. R Ramesh Nayaka., Invited talk- "Building Information Modelling (BIM) Approaches in Construction Projects", Ambedkar Institute of Technology (AIT), Bengaluru, Karnataka, 5th Aug 2020.

Dr. P. Hari Krisna, Invited lecture on "Geotechnical aspects for foundations in problematic soils" in online FDP on recent advances in civil engineering - Department of Technical Education, Govt of AP during on 17 to 21st August 2021.

Dr. P. Hari Krisna, delivered a talk on "Improvement of soft skills for success in student life" in a FDP on Proportions of Soft skills and their relevance to Life and Academics conducted by Balaji Institute of Technology & Sciences, Narsampet during 15th to 17th September 2020

Dr. P. Hari Krishna, invited talk on "Importance of Concentration - Its Importance in Professional education, during orientation program conducted for Fresher's at Balaji Institute of Technology & Sciences, Narsampet on 3 - 6th December 2020.

New lab established/ Equipment and Software procured

CE 5204: Structures & Dynamics Laboratory

• In this laboratory, students are exposed to the latest instrumentation related to static and dynamic measurements, and methods of collecting and analyzing experimental data.

• Laboratory experiments are designed to reinforce basic theories of Statics, Solid Mechanics, Elasticity, and Dynamics and include:

• Evaluating a beam used as force transducer- Static & Dynamic calibration, errors

• Truss analysis – Data acquisition, errors

• Torsion- Various Failure theories

• Digital Image Correlation- full field strain/stress analysis, stress concentration factors

• Vibration response of lumped mass and continuous systems

Software &

ATENA - Finite Element Software nonlinear analysis and design of reinforced concrete structures (5 Licences)

S.No	Equipment/Software	Cost (INR) (Lakhs)	Funding
1	ATENA Software	11.97	TEQIP-III
2	Dynamic Shaker-Instrumentation	5.145	TEQIP-III
3	Structural Models	1.9425	TEQIP-III
4	UTM Computerized with 1000KN Capacity	12.6	TEQIP-III
5	Servo Shake Table	8.1375	TEQIP-III
6	Jaw crusher & Sieve Shaker	13.03715	SRIC
7	ADV Vectrino+	11.5	Plan Grants
8	Light weight deflectometer	5.985	Plan Grants
9	Sieves	0.90	Plan Grants
10	V-Box Machine	3.99784	Plan Grants

Awards/ Recognitions/ Achievements

Prof. K. V. Jayakumar is now Professor Emeritus of the Department of Civil Engineering**.**

Dr. P Rathish Kumar , Professor, Department of Civil Engineering was the recipient of -
i) Earth Leader for Sustainable Development award by KPR Foundation and Council for Green Resolution (CGR) 2020,

ii) Selected for the DUO-INDIA Fellowship for Collaborative Research and Teaching with University of Dundee, Scotland

iii) Convener and member of BIS and is serving as committee member for CED-4 of Lime and Gypsum and

iv) Board of Studies Member of Civil Engineering Department of Kakatiya University

v) Member of the selection committee of the Japanese Government Monbusho and JSPS Scholarships for 2020.

Dr.T.P.Tezeswi, nominated as Reviewer for SERB Grant Proposals, December 2020.

Dr.T.P.Tezeswi, nominated as continuous reviewer for CSIR-FIRST Scheme, which has been initiated by CSIR in 2020 to support various fundamental research projects in CSIR Labs, April 2021.

Dr. Chinthala Sumanth, working on finalizing and implementing the United Nations Decade of Family Farming (UNDFF) Regional Action Plan (RAP) and also for supporting the UNDFF process at national level in Near East North Africa (NENA) countries

Dr. Chinthala Sumanth, participated in the e-launch of UNDFF Regional Action Plan for the Near East and North Africa on November 24th, 2020.

PhD Research guidance (Completed during the academic year)

Syed Mubashirhussain, completed his Ph.D with title "Rheological studies on identification of new rutting parameters for unmodified bitumen" under the guidance of **Dr. Venkaiah Chowdary,** June 15th, 2020

Kamineni Aditya, completed his Ph. D with title " Assessment of the effects of vehicular speeds on noise levels generated from vehicles as perceived by commuters and road users" under the guidance of **Dr. Venkaiah Chowdary,** June 22nd, 2020

Jayakrishna Jammula, completed his Ph. D with title "Mode-wise Travel Time Prediction Modelling in Mixed Traffic Conditions" under the guidance of **Dr. K.V.R. Ravi Shankar,** month, 2020

Venkata Koteswara Rao, completed his Ph. D with title "A study on Soil structure interaction Aspects of pile supported building frames" under the guidance of **Dr. P. Hari Krishna,** month, 2021

Vinay Ashok Rangari, completed his Ph. D with title "Hydrologic Modelling and Risk Assessment of Urban Floods: A Case Study of Hyderabad City" under the guidance of **Prof. N V Umamahesh & Dr. Ajey Kumar Patel,** month, 2020

Ms.Radhika KS, completed her Ph. D with title "Studies on static and dynamic behavior of hybrid fiber reinforced and functionally graded RC beams" under the guidance of **Dr.D.Ravi Prasad,** month, year

Mohammed Abdul Latheef, completed his Ph. D with title "Efficacy of EICP (Enzyme Induced Carbonate Precipitation) Techniques for Tropical Soils – Geotechnical and Geoenvironmental Applications" under the guidance of Dr Syed Abu Sayeed Mohammed & **Dr Arif Ali Baig Moghal,** Dec, 2021

P. Harsha Praneeth, completed his Ph.D with title "Micro-structure Based Multi-scale Thermo-Mechanical Characterization Of Reinforced Concrete" under the guidance of **Dr.T.P.Tezeswi,** June, 2020

B. Murali Krishna, completed his Ph.D with title "Image Based Framework For Condition Assessment Of RCC Bridge Girders" under the guidance of **Dr.T.P.Tezeswi,** August, 2020

International visits of the faculty members

Prof. M Chandra Sekhar visited University of Santiago, DeCompostilla, Spain as Erasmus+ KA107 Teaching Staff Mobility during 8th-12th,2021.

Distinguished guests interaction with the department

Dr.Hans Lobel, Pontifical Catholic University of Chile, 7th webinar on- "Quantification of Urban Space Perception by Means of AI and Discrete Choice Models", 31st Oct 2020. Transportation Division.

Dr. Tomer Toledo, Technion – Israel Institute of Technology, 8th webinar on "Simulation-based design and optimization of signal control plans" , Nov 20th 2020. Transportation Division.

Prof. George Yannis, National Technical University Athens (NTUA) , 10th Webinar- "Road Safety Challenges in Digital Era", Nov 27, 2020. Transportation Division.

Prof. Lin Jen-Jia, NTU, -TERT2020, 11th Expert Talk on"Metro -Induced Gentrification & Inclusive TOD", Dec 4th, 2020, Transportation Division.

Prof. Shankar Venky, Texas Tech University, 12th Webinar, "Opportunities for modeling pedestrian exposure in urban environment", Dec 11th, 2020, Transportation Division.

Dr. Fan Yin, Assistant Research Professor, National Center for Asphalt Technology, Auburn, USA, 'Balanced mix design', Sept 4, 2020

Dr. Raymond (Buzz) Powell, Assistant Director, Senior Research Engineer, National Center for Asphalt Technology, Auburn, USA, 'Accelerated Pavement Testing at NCAT Pavement Test Track', Sept 11, 2020

Prof Ray Brown, Director Emeritus, National Center for Asphalt Technology, Auburn, USA, Investigation of Asphalt Pavement Performance Problems, Sept 18, 2020

Prof Nick Thom, Professor, University of Nottingham, UK, Design of Cement Grouted Macadams, Sept 26, 2020

Dr. Jonanthan D Hall, Assistant Professor, University of Toronto, Canada, Pareto Improvements from Lexus Lanes: The Effects of Pricing a Portion of the Lanes on Congested Highways, Oct 3, 2020

Dr Rajesh Paleti, Assistant Professor, Pennsylvania State University, USA, Count Data Modelling: Recent Advances and Transportation Applications, Oct 10. 2020

Best student papers and other achievements

- The research of Prof. P. Ratish Kumar and his PhD student Nikhil Degloorkar was highlighted in a national newspaper:



THE NEW INDIAN EXPRESS | HYDERABAD

03 WARANGAL MONDAY 25.01.2021

GHMC COUNCIL HALL TO GET A FACELIFT

NIT-W on a path to crack ancient mortar recipe

Researchers aim to find out the materials used in the masonry of heritage monuments so that compatibility issues do not arise during restoration

AINIE SUR @ Hyderabad

'THROUGH the centuries, the composition of lime plaster, a type of plaster widely used for construction or restoration of archaeological structures, has undergone a change. This is because it is hard to figure out the materials that went into the creation of this mortar, apart from there being a difference in quality of raw materials over time.

As a result, archaeologists and conservation architects often find compatibility issues between the original lime plaster used in the construction of a structure and the new lime plaster while carrying out restoration works, leading to formation of cracks in the structure.

To mitigate this problem, researchers from National Institute of Technology (NIT), Warangal, have embarked on a long-term study of the microstructure of lime plaster used in the masonry of heritage monuments such as the Ramappa Temple in Warangal, so that they can figure out what kind of raw materials were used to make the plaster. They aim to figure out the recipe and create a new mortar using those materials.

The research, underway for the past one-and-a-half years, is being undertaken by research student Nikhil Kumar Degloorkar and professor Ratish Kumar Pancharathi, both from National Institute of Technology Warangal.

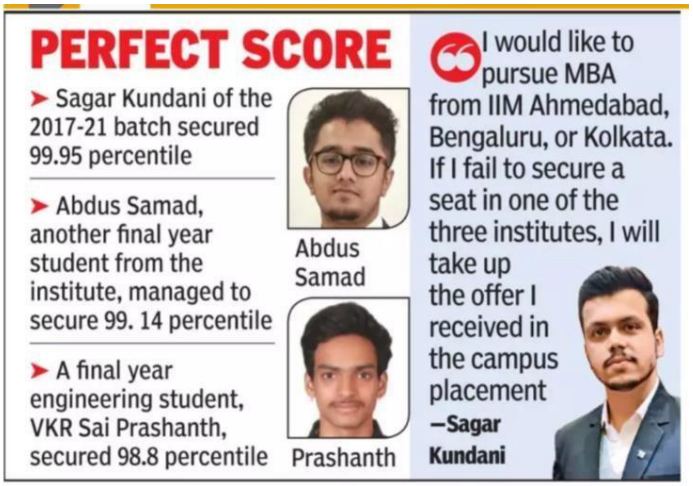
Speaking to *Express*, Pancharathi said, "For restoration purposes, we have to understand what kind of mortar was used for construction. In order to understand that, we have to do a complete microstructure characterisation. Through our research on Ramappa Temple, we have identified several materials that were used to make that mortar. We are trying to create a new mortar from those materials."

Kumar and Pancharathi's research includes the study of various types of mortar from structures such as Warangal Fort and Ramappa Temple. Recently, they published the findings from their study on the above-mentioned structures in a report titled 'Investigation of microstructure characterisation of mortars from 800-year-old heritage structures in southern part of India.'

The study, accessed by *Express*, shows that Kumar and Pancharathi found the presence of calcite (a common rock-forming mineral) and quartz (a hard, crystalline mineral composed of silicon and oxygen atoms) through various techniques such as X-ray diffraction analysis. Through X-ray fluorescence spectroscopy, they also found that the mortar did not contain magnesium oxide, a compound that is found in modern-day mortars.

> Through our research on Ramappa Temple, we have identified several materials that were used to make that mortar. We are trying to create a new mortar from those materials
> Rathish Kumar Pancharathi, professor at NIT Warangal

- CED B.Tech student Mr. Sagar Kundani (2017-2021 batch) scores 99.95 percentile in CAT



PERFECT SCORE

- Sagar Kundani of the 2017-21 batch secured 99.95 percentile
- Abdus Samad, another final year student from the institute, managed to secure 99. 14 percentile
- A final year engineering student, VKR Sai Prashanth, secured 98.8 percentile

Abdus Samad

Prashanth

"I would like to pursue MBA from IIM Ahmedabad, Bengaluru, or Kolkata. If I fail to secure a seat in one of the three institutes, I will take up the offer I received in the campus placement
—Sagar Kundani

Details of students joined in higher educational institutes

Students Placed on campus: B.Tech. **56** M.Tech. **30**

B.Tech			
S.No.	**Name**	**Branch**	**Placement details**
1	S Jagadisan	Civil	Byju's
2	Abhishek Johri	Civil	Axis Bank
3	Anna Rakesh	Civil	Tredence analytics
4	Apurva Harsh	Civil	Axis Bank

5	Bodugam Bhargavi	Civil	Axis Bank
6	Ananya Chepyala	Civil	Fractal Analytics
7	Divyansh Dubey	Civil	Accelerize 360
8	E Dhruva Teja	Civil	Byju's
9	G Soumya	Civil	Axis Bank
10	Gundagani Rathan	Civil	Byju's
11	Hare Krishna Kumar	Civil	O9 Solutions
12	Himanshu Bohra	Civil	Jaro
13	Sai Srinivas Jetti	Civil	K-12 Techno Services Pvt. Ltd.
14	Rukmini Kanumetta	Civil	ABG
15	Sahith Kunchapu	Civil	K-12 Techno Services Pvt. Ltd.
16	Roshan Manduri	Civil	Byju's
17	Meghana Kalakuntla	Civil	MasterCard
18	Mettupalle Sravika	Civil	K-12 Techno Services Pvt. Ltd.
19	Mohammed Aliuddin Saif	Civil	O9 Solutions
20	Rabiul Islam	Civil	L&T
21	Sai Vineet A V S S	Civil	Impact Analytics
22	Sapan Srivastav	Civil	Deloittee
23	Sonali Pandey	Civil	MasterCard

24	Sruthy Saju	Civil	Axis Bank
25	Aditya Tammewar	Civil	Kagool
26	Trishank Kumar Manikpuri	Civil	Capgemini
27	Vuppala Saikiran	Civil	L&T
28	Viraj Kshithiz Reddy Yasa	Civil	Deloittee
29	Abhijit Kumar	Civil	TATA PROJECTS
30	Akhil Reddy Pendela	Civil	Turito
31	Anamika P Mali	Civil	Blackbuck
32	Ansul Kumar	Civil	L&T
33	Ansul Kumar	Civil	Tredence analytics
34	Ashwin Kumar	Civil	VA Tech WABAG
35	Bollampally Sreeramareddy	Civil	O9 Solutions
36	Dhananjay Vijay	Civil	TATA PROJECTS
37	G S Sushanth Reddy	Civil	ZS
38	Rupal Hande	Civil	Kagool
39	Harsh Anilkumar Kukdeja	Civil	CollegeDunia
40	Kanne Sravan Kumar	Civil	Byju's
41	Karnati Nagamani	Civil	Fractal Analytics
42	Sagar Kundnani	Civil	MasterCard
43	Meda Manoj	Civil	BYJU's
44	Mohammed Fawaz Sharief	Civil	CollegeDunia

45	Mujahid Faraz Siddiqui	Civil	ASC Infra
46	Prasanna Kethireddy	Civil	Novartis Healthcare
47	Richa Singh	Civil	WIPRO
48	Sachin Goyal	Civil	ASC Infra
49	Shruthi Salem	Civil	MasterCard
50	Sharmishta Tallapally	Civil	Byju's
51	Utkarsh Singh	Civil	L&T
52	Vanguru Roshan	Civil	ASC Infra
53	Vatti Srujana	Civil	KEC
M.Tech			
1	A Bhavana	Civil(RS&GIS)	SMEC
2	Balaji K S	Civil (Structures)	Welspun
3	Gadiparthi Hema Sudhakar	Civil(Structures)	L&T
4	Gurrala Prakash	Civil (Structures)	Welspun
5	Kethepalli Vamsi Gopala Krishna	Civil(Structures)	L&T
6	Prashant Verma	Civil(Structures)	L&T
7	Ravi Teja Deva	Civil(Structures)	ASC Infra
8	Tejavath Shirisha	Civil(Structures)	L&T
9	Vasa Anusha	Civil(Structures)	L&T
10	Vodepalli Manaswini	Civil(Structures)	L&T
11	Anish Banerjee	Civil(CTM)	L&T

12	Anshul Kushwaha	Civil(CTM)	ASC Infra
13	Ashwani Kumar Jaiswal	Civil(CTM)	Byju's
14	Gundeti Srimadhusai	Civil(CTM)	ASC Infra
15	Nirmal Raj	Civil(CTM)	ASC Infra
16	Rekha Toshniwal	Civil(CTM)	Jaro
17	Rekha Toshniwal	Civil(CTM)	Welspun
18	Payal Ukey	Civil(CTM)	KEC
19	Atla Bindu Madhavi	Civil (WRE)	Welspun
20	Suram Sandeep	Civil(WRE)	KEC
21	Kunchakarra Samatha Ratan	Civil(EE)	K-12 Techno Services Pvt. Ltd.
22	Kolluri Srinivas Reddy	Civil(TE)	KEC
23	Kottur Rajkumar	Civil(TE)	L&T
24	Mewa Prasad Sahu	Civil(TE)	Spectrum Consultants
25	Sathi Surya Narayana Reddy	Civil(TE)	L&T
26	Suraparaju Venkata Sai Tharun	Civil(TE)	Spectrum Consultants
27	Ekansh Sharma	Civil(GTE)	KEC
28	Anuj Kumar	Civil(RS&GIS)	SMEC
29	Barsale Sayali Bhagwan	Civil(RS & GIS)	L&T
30	Jaladanki Sreekanth	Civil(RS & GIS)	K-12 Techno Services Pvt. Ltd.



Department Outreach Activities

Prof. P. Rathish Kumar, Primary Evaluator, Toycathon 2021, Ministry of Education's Innovation Cell, GoI, in collaboration with Ministry of Education, Ministry of Women and Child Development, Ministry of Commerce and Industry, Ministry of Textiles, Ministry of Information and Broadcasting, Ministry of MSME.

Prof. P. Rathish Kumar, Member of the B8 Committee-Management, Maintenance and Rehabilitation Committee of the Indian Roads Congress for a Period of Three Years from October 2021.

Prof. P. Rathish Kumar, Member of the Building Works Committee (BWC) of the School of Planning and Architecture, Vijayawada.

Prof. P. Rathish Kumar, Participated as sectional committee member of the CED 4 in the Twenty Fourth Meeting of the Building Lime and Gypsum Products of the Bureau of Indian Standards (BIS).

Prof. P. Rathish Kumar, Advisor Committee Member, NCB Hyderabad, 2020-21.

Prof. P. Rathish Kumar, Member Board of studies, Vaagdevi College of Engineering, Warangal 2020-21.

Prof. P. Rathish Kumar, Member Board of studies, Sri Guru Gobind Institute of Technology and Engineering, Nanded

Prof. P. Rathish Kumar, Member Board of studies, Kakatiya University, Warangal, 2020-21.

Prof. P. Rathish Kumar, Member Board of studies, JNTU, Hyderabad, 2020-21.

Prof M Chandra Sekhar, BOS Member, SVUniversity, Tirupati, Since 2019.

Prof M Chandra Sekhar, State Level Expert Appraisal Committee, MoEF, Govt of AP, Since 2021.

Prof M Chandra Sekhar, Member, Curriculum Revision, AP State Council for Higher Education, Govt of AP, Since 2020.

Prof M Chandra Sekhar, Member of Editorial Advisory Board of Analytical Chemistry Letters, Since 2020.

Prof M Chandra Sekhar, BOS Member, IST, JNTU Hyderabad, Since 2021.
Prof. V. Ramana Murty, Reviewer for journal of Sciences in Cold and Arid Regions, Since, 2020.

Prof V. Ramana Murty, BOS member for VR Sidhartha Engg. College, Vijayawada, Since 2020.

Prof. V. Ramana Murty, BOS member for JNTU - Kakinada, Since 2019.

Dr. P. Hari Krishna, BOS member of NBKRIST, Vidyanagar, Nellore Dist, Since 2019.

Dr. P Hari Prasad Reddy, BOS member for KHIT, Guntur, Since April 2021.

Dr. P Hari Prasad Reddy, External expert of Doctoral Committee, PDEU, Gujarat, Since Aug 2021.

Dr Arif Ali Baig Moghal, Conference/Symposia Sessions chaired, International Conference & Exposition on Mechanical, Material and Manufacturing Technology (ICE3MT2020), CVR College of Engineering, Hyderabad, 09-10 Oct, 2020.

Dr Arif Ali Baig Moghal, Conference/Symposia Sessions chaired, Indian Geotechnical Conference-2020, AU, Visakhapatnam, 17-19 Dec, 2020.

Dr.D.Ravi Prasad, BOS member for NSRIT, visakhapatnam, Since Jan 2021.

Dr. Chinthala Sumanth, working on finalizing and implementing the United Nations Decade of Family Farming (UNDFF) Regional Action Plan (RAP) and also for supporting the UNDFF process at national level in Near East North Africa (NENA) countries

Dr. Chinthala Sumanth, participated in the e-launch of UNDFF Regional Action Plan for the Near East and North Africa on November 24th, 2020.

Dr. V. Ramana Murty, Conference/Symposia Sessions chaired, Indian Geotechnical Conference-2020, AU, Visakhapatnam, 17-19 Dec, 2020.

Dr. M. Shashi, Conference/Symposia Sessions chaired, UASG-2021, IIT Roorkee, 02-04 April, 2021.

Dr. M. Shashi, Conference/Symposia Sessions chaired, ITHES-2021, NIT Warangal, 28-30 April, 2021.

Dr. Manali Pal, Conference/Symposia Sessions chaired, ITHES-2021, NIT Warangal, 28-30 April, 2021.

Dr. V. Vamsi Krishna, Conference/Symposia Sessions chaired, ITHES-2021, NIT Warangal, 28-30 April, 2021.

Dr. Manish Pandey, Guest Editor In Frontiers Journal (SI: The Urban Fluvial and Hydro-Environment System), Since 2021.

Dr. Manish Pandey, Conference/Symposia Sessions chaired, Hydro'20, NIT Rourkela, 26-28 March, 2021.

Dr. Manish Pandey, Conference/Symposia Sessions chaired, ITHES-2021, NIT Warangal, 28-30 April, 2021.

Dr. Manish Pandey, Conference/Symposia Sessions chaired, Hydro'21, NIT Surat, 23-25 Dec, 2021

Dr. Manish Pandey, Conference/Symposia Sessions chaired, 2nd YPN, IAHR, 30 Nov - 2 Dec 2021.

Dr B Raghuram Kadali, Conference/Symposia Sessions chaired, Innovative and Sustainable Technologies in Civil Engineering (ISTCE-2021), 24-25th Sep 202

Department Association/Students Clubs Activities

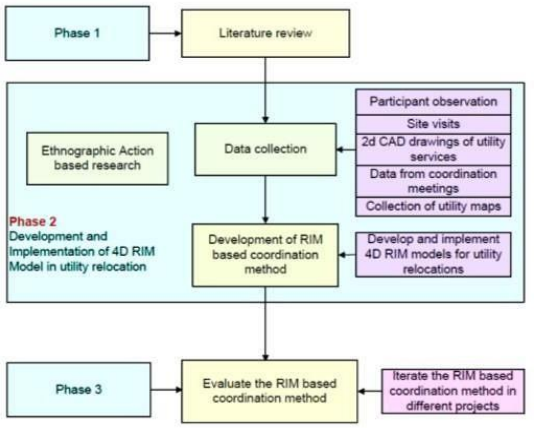
The Civil Engineering Association (CEA) conducted several events during the academic year:

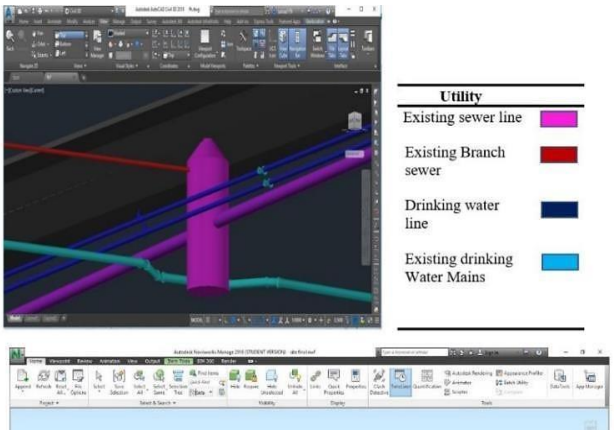
Event Name	Date
Worth the risk	21-11-20
The Recruitment Saga 1.0	22-11-20
Chai Pe Charcha	03-12-20
Inaugural Ceremony	05-12-20
The Recruitment Saga 2.0	04-12-20
Expert Talk on Project Site Enabling	12-12-20
The Recruitment Saga 3.0	23-12-20
Career Guide	30-12-20
The Fact Hunt Quiz 11 to	16-01-21
The recruitment Saga 4.0	25-01-21
The Recruitment Saga 5.0	14-02-21
The recruitment Saga 6.0	22-02-21
Eunoia - Newsletter	23-03-21
Guest Lecture- Growth Opportunities	21-01-21
Meme Making	26-02-21
Freshers	28-02-21
Online Aptitude Test 12,13,	14 - 03-21
Talk with Tnp	17-03-21
The recruitment saga 7.0	16-03-21
The recruitment saga 8.0	27-03-21
The recruitment saga 9.0	18-04-21
Career Guide 2.0 - Dr Manimaran	31-03-21
Resume Making	23-04-2021
The recruitment saga 10.0	02-05-21
Mock Placement drive 20,	21-05-21

Any other Department Specific

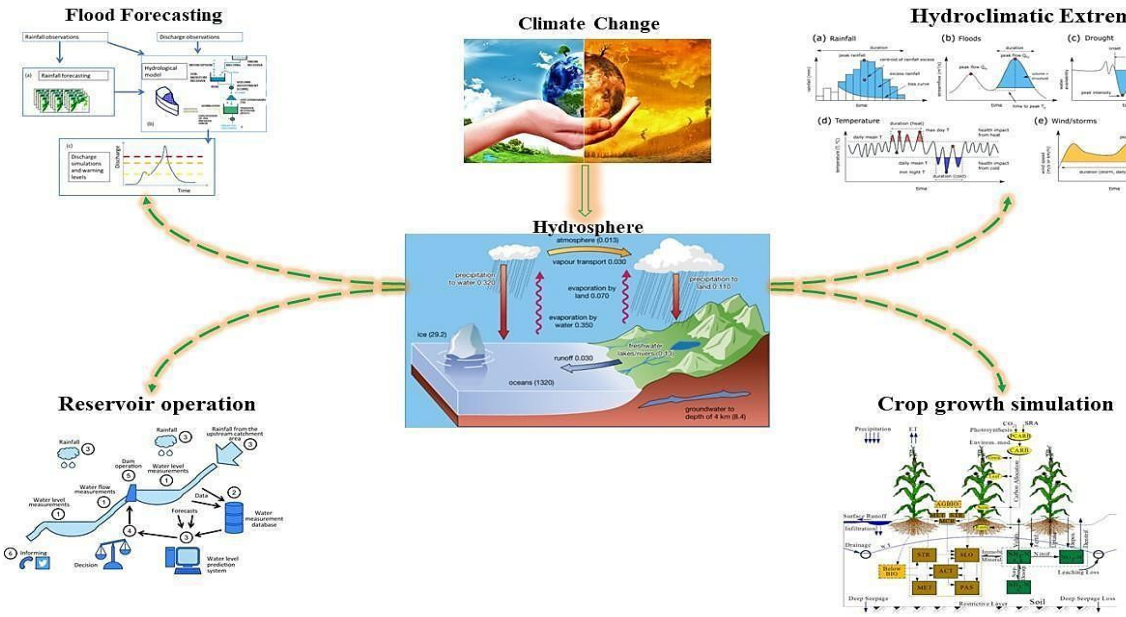
Highlights of the department (Research, state of art equipment, facilities, innovative practices etc. With photographs)

Research Highlights:



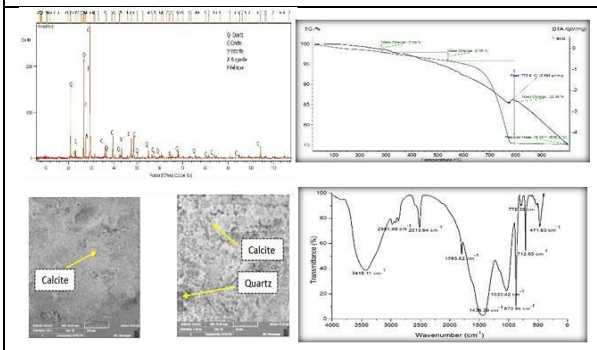


Development of a Road Information Modeling (RIM) Based Coordination Method for Utility Relocations



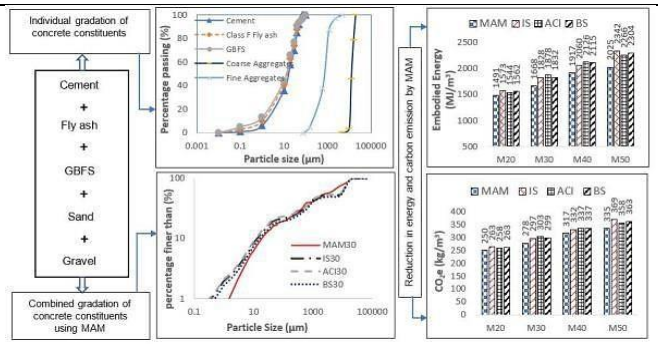
Climate change is the global phenomenon of climate transformation characterized by the changes in the usual climate system of the planet (regarding temperature, precipitation, and wind) that are especially caused by human activities. The climate system is a highly complex system consisting of five major components: the atmosphere, the hydrosphere, the cryosphere, the lithosphere and the biosphere, and the interactions between them. The hydrosphere is a component of the climate system comprising liquid surface and subterranean water, such as oceans, seas, rivers, lakes, underground water, etc. Human contributions to greenhouse gases in the atmosphere are warming the earth's surface resulting in climate change. This process is projected to increase the evaporation of surface water and accelerate the hydrologic cycle. In turn, a warmer atmosphere can hold more water vapour leading to alterations in the timing and patterns of rainfall distribution. The impact of climate change on the hydrosphere can be studied broadly under four thrust areas namely Hydro-climatic

extremes, Flood forecasting, Reservoir operation and crop growth simulation. The Water & Environment Division of the Department of Civil Engineering is actively pursuing research in these four thrust areas.

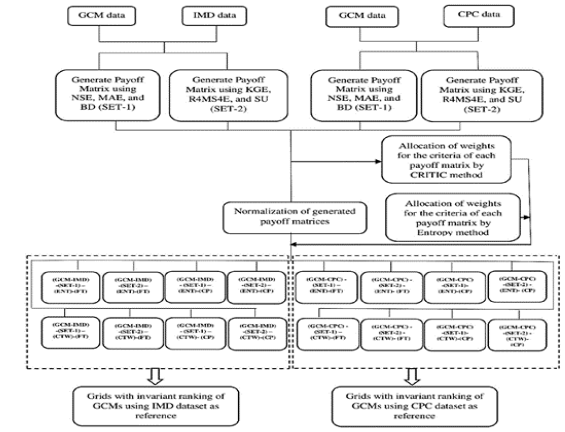


800-Year-old ancient mortars in Ramappa Temple of Southern India were selected for Characterization studies. X-ray Diffraction method was used to study the mineral phases. Morphological features were understood using Scanning Electron Microscopy. X-ray Fluorescence method was utilized for obtaining chemical composition.

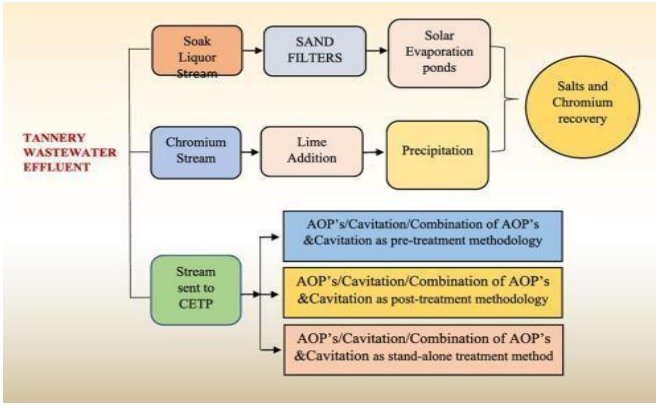
FTIR method was used to identify the presence of organic and inorganic compounds.



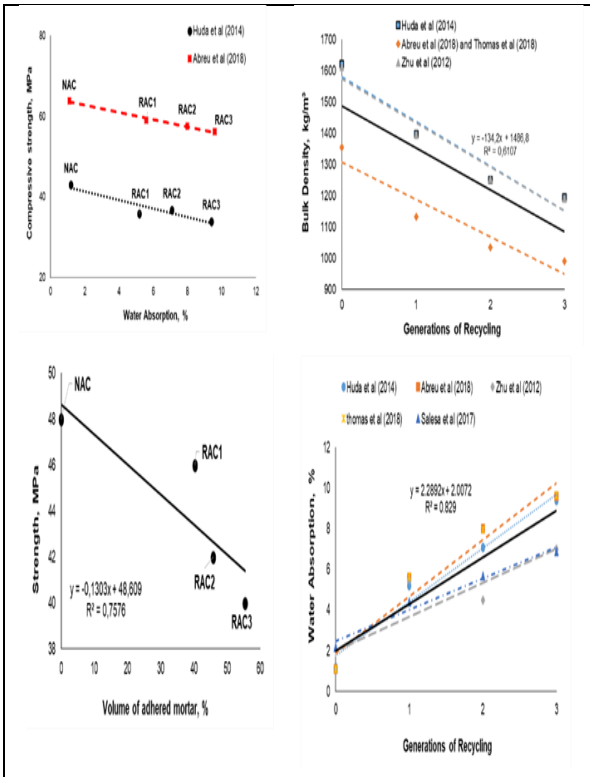
PSD of total solid phase concrete constituents influences properties of concrete. MAM based mix demanded more fine aggregate than the mixes of IS, ACI and BS. MAM based mixes consumed less binder compared to IS, ACI and BS mixes. MAM mixes exhibited less energy use and CO2 emission than IS, ACI and BS mixes.Replacement of SCMs with OPC and MAM granulometry results in sustainable concretes.

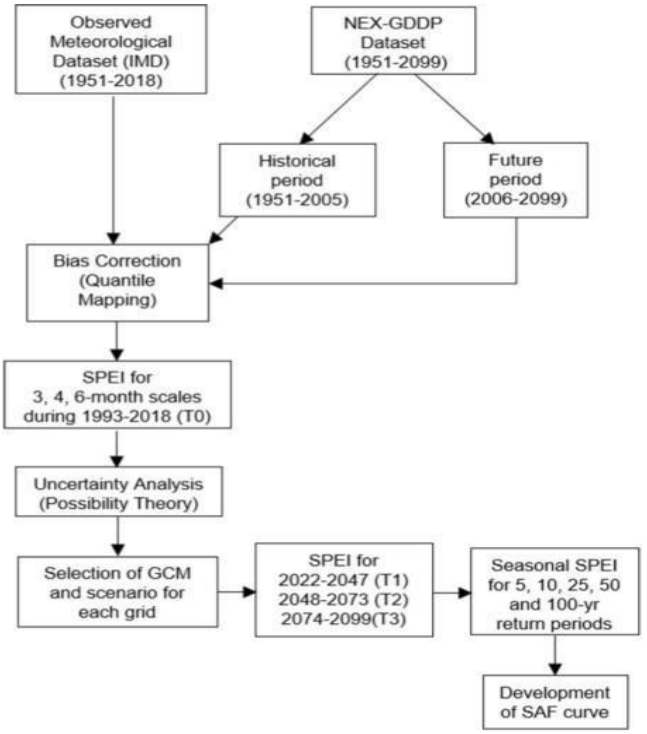


The performance of a General Circulation Models (GCM) is site-specific and the ranking pattern varies spatially. The past performance of GCMs from Coupled Model Intercomparison Project phase 6 (CMIP6) in simulating the maximum and minimum temperature across India are evaluatedand ranked by different ranking procedures. Different criteria and methodsinvolved in the ranking procedures are carefully selected to address the subjectivity involved in ranking of GCMs. The performance of best performing GCM is attributed to homogenous climatic zones and its corresponding topological features.



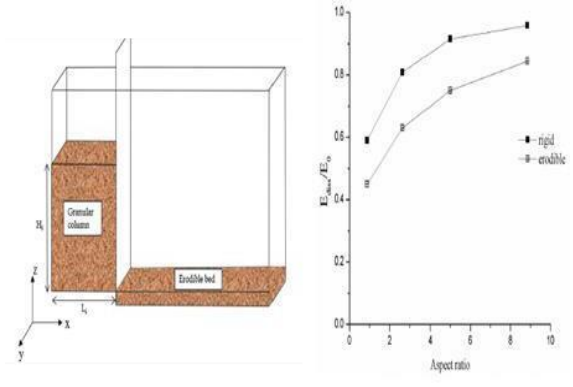
Hydroxyl radical generation through advanced oxidation process and cavitation method.Degradation of tannery wastewater effluent through hydroxyl radicals generated.Parameters affecting Cavitation and Advanced oxidation process explained. Discussion on energy, cost and treatment removal efficiencies of all the processes.

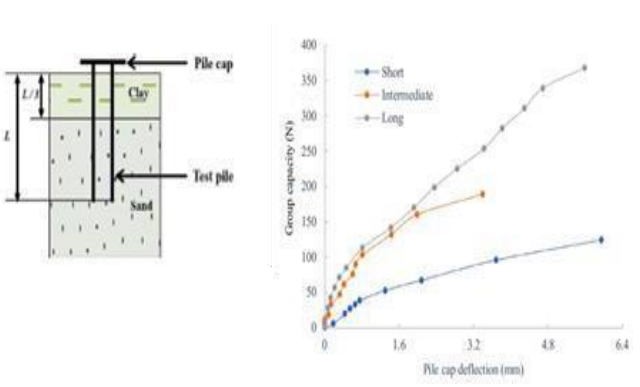


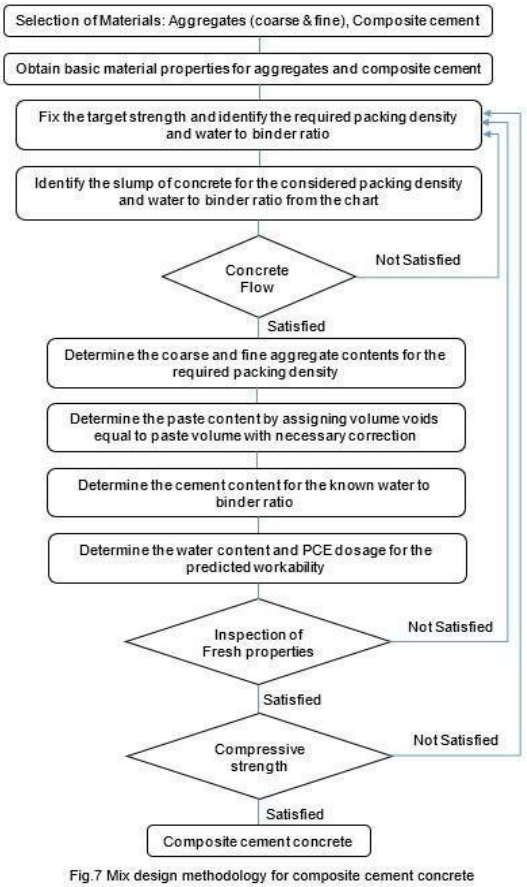
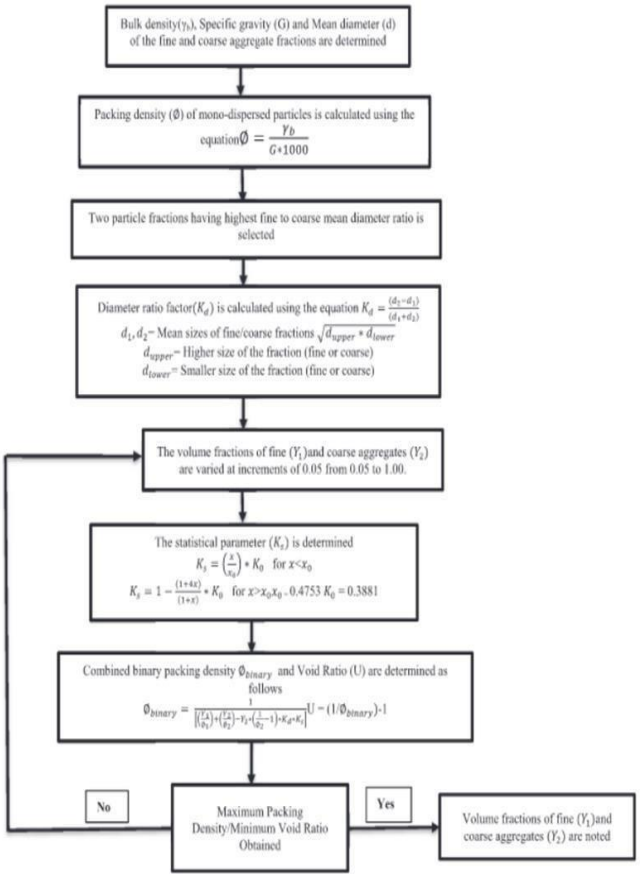


The properties of aggregate decreased with the generations of recycling which is attributed to the decreased quality of aggregate. A linear relationship of y = -134.2x + 1486 and y = 2.29 x + 2.00 is obtained between bulk density and water absorption respectively with generations of recycling.The volume of adhered mortar was 55%, 76% and 88% of aggregate volume for first, second and third generation recycled aggregate. The compressive strength of third generation recycled concrete is 33%, 20% and 22% lesser respectively than conventional concrete. The usage of multi-recycled concrete is contributing to the sustainability and effective management of non-renewable energy resources.

The precipitation magnitude is expected to increase in pre-monsoon, monsoon, and Kharif seasons over most of the areas in Maharashtra. Except for the monsoon season, the potential evapotranspiration is projected to increase over 50% of the total area. Increase in the temperature profile is noticed over all the regions in Maharashtra during the twenty-first century. The extreme drought condition during post-monsoon, pre-monsoon and Rabi seasons shows an increase in the frequency as compared to historical period. The SAF curve reveals that, in most of the cases, the percentage of drought-affected area is expected to increase for high magnitude of severity. In addition, the highest increment in the drought-affected area is observed during the Rabi season in future.



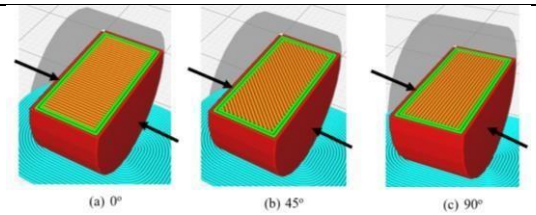


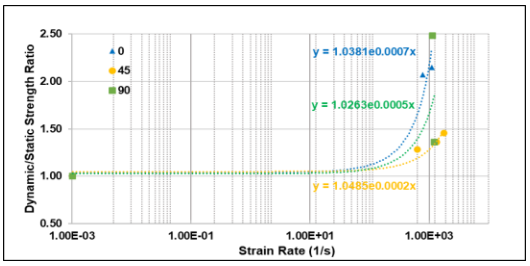
Landslides, debris flows and avalanches are geophysical hazards, which require sophisticated multi-scale analysis to understand the nature of the flow behaviour. This article discusses **numerical investigation of the behaviour of granular flows through granular column collapse model**. The column is allowed to collapse on an erodible bed of granular particles to understand the mechanism ofentrainment. Discrete Element Method (DEM) is used to model the column collapse to investigate the run-out length and velocity of flow. In this study, substantial variations were observed in thefinal run-out lengths in the presence of anerodible bed in the model. Column collapseover erodible bed resulted in thicker final deposits, which is evident from theincreased coordination number.	**Soil–pile interaction significantly influences the behavior of pile groups under lateral loading.** The current study aims to understand the behavior of individual pile and pile groups under lateral loads in uniform sand (relative density 80%) and stratified soil(sand overlain by clay) by conducting laboratory model tests. Test tank of length 1.52 m, width 0.76 m, height 1.2 m andmodel aluminum test piles of 16 mm diameter (D) and aspect ratios 12, 25 and 40 were used for the tests. The response of individual pile and 2 × 2 pile group was evaluated in terms of deflection at pile head for varying aspect ratio and pile spacing of 3D, 5D and 7D for the case of pile groups. It is noted that at all stages of the loading, the pile head deflection of the single pile and pile group was reduced for the stratified soil when compared to the uniform sand bed. However, the efficiency of the pile groups embedded in the stratified soil medium was observed to be less than that of the pile groups embedded in the uniform sand.
 Fig.7 Mix design methodology for composite cement concrete	

Replacement of SCMs optimised through packing density and compressive strength.

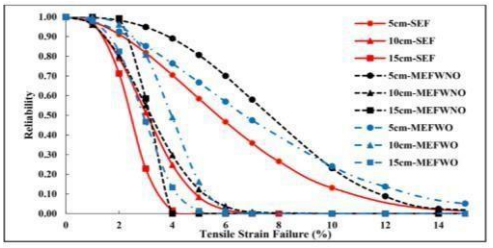
Packing density is the main factor influencing workability and strength.Tri-relationship between strength, packing density and W/B ratio is established.Workability and compressive strength influencing parameters are correlated.Developed mix design for CC concrete using packing density approach.

Physico-chemical characteristics of two non-hydraulic lime binders Type-I andType-II lime fly ash binders were prepared by replacing lime with fly ash from 0 to 30%. In addition, 5% gypsum was added to the binder mix for obtaining quicker setting. Two particle packing theories Modified Toufar Model (MTM) & J.D Dewar Model (JDD) and Indian Standard Codes (IS: 650-2000 and IS: 383-2016) were considered for attaining different gradations of sand. Mix proportion 1:3 (Binder: Sand) lime-fly ash-based mortars were investigated for the flowability and compressive strength properties. The lowest minimum void ratio of 0.574 was obtained for MTM proportioned sand. Compressive strengths of Type-I and Type-IIlime fly ash-based mortars were highest for MTM particle packing sand with strengths 2.320 MPa and 0.738 MPa respectively after 28 days of curing. From the study, it can be concluded that using Type-I lime fly ash-based mortar and MTM particle packing theory, repair mortars with reasonably good strength can be achieved.

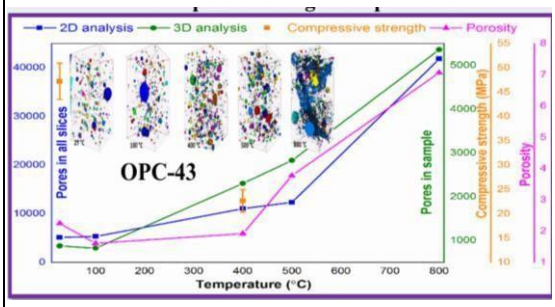




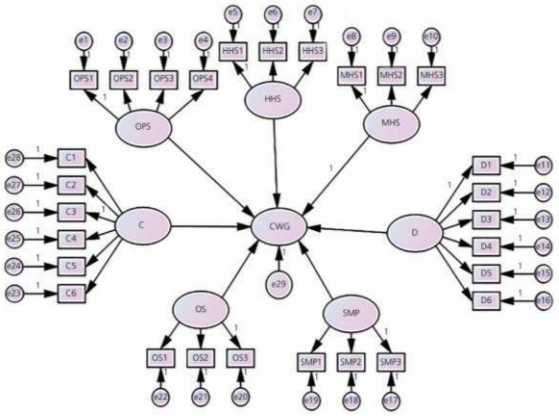
High strain rate response of 3D printed PLA has been characterized for 0°, 45° and 90° print orientations and is found to be significantly brittle compared to the corresponding quasi-static response. The mechanical response of PLA is observed to transition from typical polymer/foam type hardening and densification behavior in the quasi-static loading regime to the quasi-brittle and strain softening behavior observed in the high strain rate loading regime. In this study, the dynamic increase factors for various orientations of PLA are reported and strain rate sensitivity is quantified.



Mechanical reliability of extruded PLA filaments. The mechanical characteristics of 3D printed polymer materials such as strength and stiffness depends on extruded filaments, which are fundamental building blocks. Currently there is a lack of studies on the effects of length scaling on the strength and reliability of extruded filaments. In this study, single extruded filaments (SEF), multiple extruded filaments without overlap (MEFWNO) and multipleextruded filaments with overlap (MEFWO) of Polylactic acid (PLA) material with different gauge lengths are tested for axial tensile modulus, ultimate strength, failure strain and toughness. A probabilistic strength prediction model of individual extruded filaments, as well asextruded filaments with and without overlap is developed, wherein the 2-parameter Weibull distribution is used to determine the probability of failure of extruded filaments at various stresses.



Thermal Behavior of PPC and OPC-53 When Exposed to Extreme Temperatures. As the temperatures increase, the pores become broadly distributed across both the PPC and the OPC53 samples at all temperatures. Furthermore, the porosity of OPC-53 is higher than that of PPC. The distribution of smaller pores plays a crucial role in forming a network of cracks. Hence, we can conclude that the utilization of PPC under thermal loading is a good alternative to OPC-53.



Construction waste in India: a structural equation model for identification of causes. The construction industry is one of the bulk generators of waste globally. There is a wide range of factors that contribute to the generation of waste at construction sites. The significant factors are identified through exploratory factor analysis and a novel approach is presented for determining the causal relationships of various factors that lead to waste generation at construction sites by structural equation modelling.



Condition assessment of RC beams using artificial neural networks. To assess the condition of structural components, a local damage index (LDI) was developed. Validation of FEM results with experimental results enables derivation of moment-curvature backbone curve for full-scale bridge girders, which enables further quantification of damage and residual moment capacity of full-scale bridges designed by Ministry of Road Transport and Highways (MoRTH). The correlation between the experiments, simulation and ANN predictions was found to be very satisfactory.



Decision Support Tool for Blast Mitigation In the current geopolitical scenario, it has become predominant for urban planners to consider terrorism threats in the built environment. Blast damage prediction is an essential requirement for emergency responders and law enforcement agencies. A standalone and straightforward MATLAB-based GIS tool for blast damage prediction has been developed, enabling planners to predict blast damage and initiate blast mitigation efforts such as access control, standoff, and hardening of critical infrastructure.Various blast scenarios such as man-portable packages and automobiles are considered, and modified air blast effects are superimposed over an urban environment.



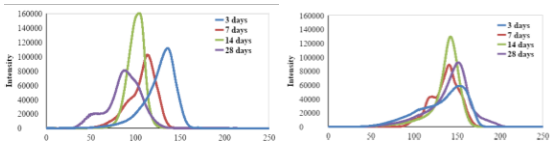
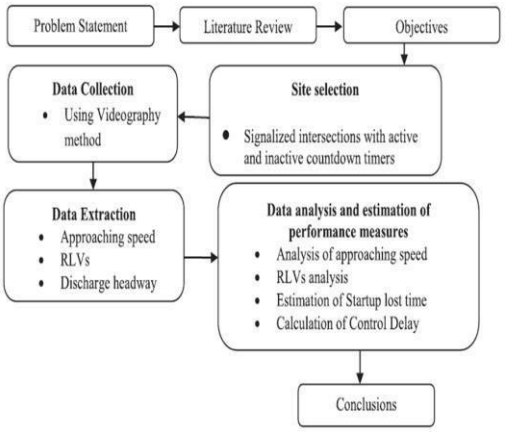
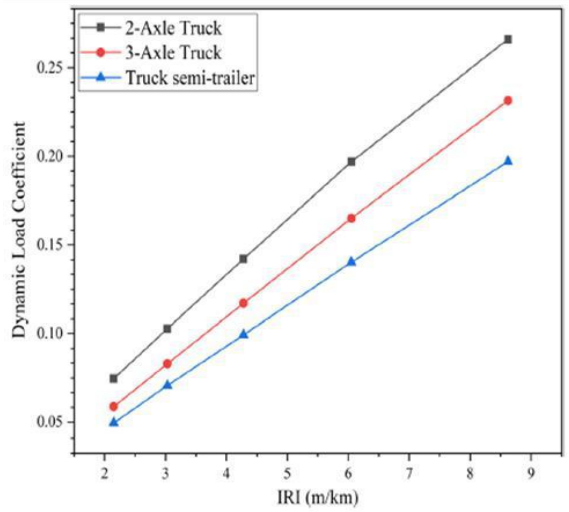
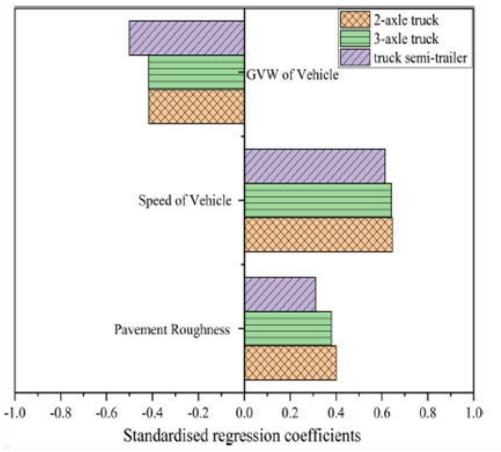


Image-based deterioration assessment of concrete. The present study attempts to quantify deterioration in concrete using digital image processing techniques. Concrete specimens were exposed to deterioration due to acid (HCl, H2SO4) chloride (NaCl) and sulphate (MgSO4) at 5% concentration for a period of 3, 7, 14 and 28 days. The mean grey scale intensities enable identification of exposure and deterioration due to different chemicals.



Signalized intersections are the interrupted traffic flow facility in a roadway network. The present study evaluates the performance of traffic operations under with and without signal countdown timer (SCT) conditions based on field data collected at two signalized intersections in Hyderabad city, India. The vehicles speeding behavior and drivers complying with traffic regulation are also analyzed under different countdown timer conditions. It has been found that the average approaching speed of vehicles and red-light violations are found to be changed due to changes in the signal countdown timer conditions. The average startup loss time calculated in the field was found to be decreased when SCT was inactive. A significant increase in the capacity of signalized intersections has been observed when SCT was active. The traffic performance measures such as average control delay and queue lengths as estimated on the approaches were influenced due to the presence of STCs. The study finds that the signal countdown timer is an effective device that can enhance the traffic safety and operational performance of a signalized intersection.





The magnitude of commercial vehicle wheel loads applied on the pavement plays a crucial role in pavement performance. To avoid premature failure in the asphalt pavements, an insight into the factors influencing the magnitude of wheel loads is required. The objective of this study is to evaluate the influence of vehicle characteristics such as speed, magnitude of payload, and distribution of payload over the loading platform of a truck on the magnitude of dynamic wheel loads. For this purpose, commercial vehicle models were simulated using Truck-Maker software, and the magnitude of wheel loads generated was measured. Three vehicle classes consisting of different axle configurations were considered in this study, and their movement was simulated over the pavement profiles generated according to the guidelines of ISO 8608:2016. Dynamic wheel loads quantified in terms of dynamic load coefficient are found to be significantly affected by the above three parameters, and the effect of these three parameters is inseparable. Due to the effect of these parameters, thecommercial vehicles operating under different conditions can produce dynamic loads, which are 4–60% higher than their static loads. The average load applied by the axles of a truck onthe pavement is found to be sensitive to the distribution of payload over the loading platformof the truck. The trucks when loaded to the maximum legal load limit, and only when the loadis located between one-third and two-third part of the loading platform, the average load applied by all the axles is found to be within the legal axle load limit.

Summary

S.No.	Activity	Number
1	**Publications (Peer Reviewed Journals/ conferences)(SCOPUS/SCI)**	
	International Journals	**97**
	National Journals	**0**
	International Conferences	**13**
	National Conferences	**0**
2	**Funded Research Projects/SPARC projects (2020-21)**	**12**
	Completed Projects	2
	DBT, SERB, DRDO	Rs. 72 Lakhs
	Ongoing Projects (Rs **4.84** Crores)	**13**
	IMPRINT PROJECTS (1.33 Cr)	1
	FIST PROJECT (2.16 Cr)	1
	BRICS project (39 Lakhs)	1
	DST, SERB, IITM, NHAI, CSIR	10
3	**SPARC Project Workshops**	**0**
4	**Consultancy Works (April 2020-March 2021)**	**Rs. 1.336 Crores**
5	**Patents**	**5**
	Awarded	0
	Filed	5
6	**Books and Book Chapters**	**3**

	Books	1
	Book Chapters	2
7	**Conferences/ Workshops/GIAN courses/FDPs Conducted**	**51**
8	**Guest talks/ Webinars delivered Elsewhere**	**114**
9	**New Labs Established (Equipment/Software Procured)**	**Rs. 75.215 Lakhs**
10	**Awards/Recognitions/Achievements**	***6***
11	**Research Guidance (Completed in 2020-21) (146 ongoing)**	**9**
12	**International Visits of the Faculty Members/ students**	**1**
13	**Students Achievements**	
	Placements	**86**
	B.Tech	56
	MTech	30
	Higher Education (M.Tech, PhD at IITs & Abroad)	5 %
	Lab Development Activities	0
	Conference visits	0
14	**Civil Engineering Association Activities**	**25**
15	**Distinguished Guests visiting the Department/Delivering Expert Lecture/Keynote Address**	**11**
16	**Outreach Programmes**	**37**

DEPARTMENT OF ELECTRICAL ENGINEERING

Brief History of the Department, Academic Programs

The Department of Electrical Engineering is one of the oldest departments of National Institute of Technology (formerly Regional Engineering College), Warangal (NITW). Established as one of the major departments of the institute, since inception in 1959, the Department of Electrical Engineering has been actively engaged in teaching and research in diverse fields of Electrical Engineering. With excellent faculty, the department offers Undergraduate program (B.Tech) in Electrical and Electronics Engineering, Postgraduate degrees (M.Tech) in Power Electronics & Drives and Power Systems Engineering and Ph.D. programs in all the areas of electrical engineering. All the three programs have been accredited for full term of accreditation in three accreditations in 1987, 2004 and 2014-15 by NBA as per Washington Accord. Department is strong with all faculty members holding PhD degrees and having expertise in various fields. A new M.Tech. (Smart Electric Grid) was started in the academic year 2020-21. Currently there are 34 faculty, whose broad areas of expertise include State Estimation and Real Time Control of Power Systems, Applications of ANN and Fuzzy Logic in Power Systems, Power System Deregulation, Power System Transients, EMTP applications in Power Systems, Relay coordination, Application of Power Electronics for Power Quality Improvement and Industrial Drives, DSP controller Drives, Simulation of Power Electronic Converters and Drive systems and Control of Special Machines. The department has state of the art infrastructure in frontier areas of research in the domains of Power Systems and Power Electronics & Drives.



Faculty Details:

S. No.	Name of the Faculty Member and Designation	Highest Qualification	Research Interests	Photograph
1.	**Dr. M Sailaja Kumari Professor & Head**	Ph. D	Power Markets, Renewable energy grid integration issues, AI techniques in Power engineering, Power system optimization.	
2.	**Dr. M Sydulu Professor (HAG)**	Ph. D	Real Time Control of Power Systems, Application ANN,GA and Fuzzy, Nature and Bio-inspired algorithms for Power system and Distribution Network optimisation Problems	
3.	**Dr. D M Vinod Kumar Professor (HAG)**	Ph. D	Artificial Intelligence Applications to Power System, Power System State Estimation in Distribution system and Transmission system, Power system Stability, Smart Grid Applications, Power system De-regulation, Power System Security, Machine Learning and Deep Learning Applications to Power System, Meter placement in Distribution System	
4.	**Dr. D V S S Siva Sarma Professor (HAG**)	Ph. D	Power systems, Signal Processing, Power Quality, Condition Monitoring, Smart Grid	

5.	**Dr. N Subrahmanyam Professor**	Ph. D	Power Systems, Distribution systems, Computer architectures	
6.	**Dr. B K Murthy Professor**	Ph. D	Wind and Wave Energy; Doubly fed Induction Machines, Electric drive.	
7.	**Dr. N Vishwanathan Professor**	Ph. D	LED Drivers, Induction Heating Applications, Switched Mode Power Converters	
8.	**Dr. V T Somasekhar Professor**	Ph. D	AC Drives, PWM Schemes, Renewable Systems	
9	**Dr. S Srinivasa Rao Professor**	Ph. D	Power Electronics, Electric Drives, Renewable Energy Systems	
10.	**Dr. N V Srikanth Associate Professor**	Ph. D	AI techniques application to power systems, HVDC and Intelligent controlled FACTS and heuristic and meta heuristic optimization techniques	

11	**Dr. ChVenkaiah Associate Professor**	Ph. D	Power Systems-AI Techniques, Deregulation, Restructuring; Financing, Power	
12.	**Dr. B L Narasimharaju Associate Professor**	Ph. D	LED Drivers for Lighting Systems; Power Converters & Control Techniques; Multilevel Power Converters; Grid Integration of Solar Energy; Switched Reluctance Motor drives	
13.	**Dr. S P Selvi Assistant Professor**	Ph. D	Power Electronics LED Lighting, Induction Heating, High Frequency Soft-Switched Inverters.	
14.	**Dr. P Suresh Babu Assistant Professor** :	Ph. D	Power System Protection: Digital Filtering Algorithms, Adaptive Protection Schemes, Relay Coordination, PMU & WAMS in Power System Protection, Electric Vehicles	
15.	**Dr. A Kirubakaran Assistant Professor**	Ph. D	Power Electronics-DC-DC Converters, DC-AC Inverters, Multilevel Inverters, Power Quality and Grid interface, Renewable Energy and Distributed Generation.	

16.	**Dr. B Nagu** **Assistant Professor**	Ph. D	Renewable Energy, PV System, Fuel System, Micro Grid, Power System Stability and HVDC System.	
17.	**Dr. G Siva Kumar** **Assistant Professor**	Ph. D	Power Electronics Application to Power System and Renewable System.	
18.	**Dr. D Sreenivasarao** **Assistant Professor**	Ph. D	Power quality, Custom Power Devices (CPDs), Flexible AC Transmission System (FACTS), Multilevel inverters, Improved power quality converters.	
19.	**Dr. A V Giridhar** **Assistant Professor**	Ph. D	High Voltage Engineering, Condition Monitoring & Diagnosis of Power Equipments	
20.	**Dr. M Udaya Bhasker** **Assistant Professor**	Ph. D	Bi-directional DC-DC converters, Hybrid Energy storage system, Digital Control	
21.	**Dr. Y Chandrasekhar** **Assistant Professor**	Ph. D	Renewable energy resources in power systems; Microgrids; Multi-Microgrids; Optimization techniques, Meta-heuristic Techniques; Fast EV Charging stations; Blockchain Technologies to Smart Grid; Power system Reliability; Internet of	

			Things (IoT); PV Reconfiguration Techniques; Energy Management in Multi-Microgrids;	
22.	**Dr. T Vinay Kumar** **Assistant Professor**	Ph. D	Power Electronics and Drives	
23.	**Dr. P Srinivasan Assistant Professor**	Ph. D	Power Electronics and Drives	
24.	**Dr. Ch. Ramulu Assistant Professor**	Ph. D	Power Electronic Applications in Renewable Energy Systems, Maximum Power Point Tracking Techniques for Solar Photovoltaic Systems under various operating conditions including partially shading, Single-Stage Photovoltaic (PV) Source Fed Induction Motor Drive for Water Pumping Applications, Solar PV based High Gain Power Converters for stand-alone applications. LED Drivers for Energy Efficient Lighting System, PWM Techniques, Multilevel Inverter fed induction Motor Drives, and Electric Drives for EV applications etc.	

25.	**Dr. I Satish Kumar Assistant Professor**	Ph. D	AI applications to electrical power systems, Energy management, image and radar signal processing.	
26.	**Dr. Altaf Q H Badar Assistant Professor**	Ph. D	Artificial Intelligence Applications to Power Systems, Energy Management, Energy Trading, Forecasting	
27.	**Dr. D Swati Assistant Professor**	Ph. D	Linear Induction machines, Power converters, Five phase induction machines, DFIG	
28.	**Dr. Palash Mishra** **Asst. Professor**	Ph. D	High Voltage DC/AC Systems; Nano Dielectrics;	
29.	**Dr. Ram Krishan** **Asst. Professor**	Ph. D	Power system stability, Distribution system Analysis, Integration of Renewable energy resources	
30.	**Dr. Jeyasenthil R** **Asst. Professor**	Ph. D	Control System Design: Linear and Nonlinear Control, Quantitative Feedback Theory (QFT). Application areas, Control of Power electronic converters and Power system	

31.	**Dr. Deepak R Pullaguram** **Asst. Professor**	Ph. D	Renewable energy integration, AC and DC microgrid, power system stability	
32.	**Dr. Kanasottu Anil Naik** **Asst. Professor**	Ph. D	Wind energy system grid integration issues, Intelligent control techniques application in power system ,DSP techniques application in power system ,Micro-grid stability and control	
33.	**Dr. Debasmita Panda** **Asst. Professor**	Ph. D	Power Market Risk Management, Portfolio Optimization, Power Trading, Economic Dispatch, Congestion Management, Restructured Power Systems	
34.	**Dr. Mahamad Nabab Alam** **Asst. Professor**	Ph. D	Power systems protection and optimization, networked microgrids, renewable energy systems	

Journal Publications

Hemasundara Rao Kolla, **N. Vishwanathan, Bhagwan K. Murthy,** Input voltage-controlled Full-bridge Series Resonant Converter for LED driver application, IET Power Electronics, 2021.

Patnana Hema Kumar, **V T Somasekhar**, A cost-effective and fault-tolerant brushless direct current drive with open-stator windings for low power electric vehicles, International Journal on Circuit Theory and Applications-Wiley 2021.

Sumon Dhara, **V T Somasekhar** , A Nine-Level Transformerless Boost Inverter with Leakage Current Reduction and Fractional Direct Power Transfer Capability for PV Applications, IEEE Journal of Emerging and Selected Topics in Power Electronics.

Suresh Lakhimsetty, Patnana Hema kumar, **V T Somasekhar**, Hybrid SVPWM strategies for a Four-level Open-End Winding Induction Motor Drive with an Improvised Harmonic Performance and Balanced DC-linkCapacitors, International Transactions onElectrical Energy Systems-Wiley.

Sumon Dhara, **V T Somasekhar**,_A Three-Phase Semi-Single Stage PV Inverter with Voltage Boosting and Leakage Current Minimization, IEEE Transactions on Circuits and Systems II: Express Briefs .

Bhaskar S S Gupta Yelamurthy, **S Srinivasa Rao,** Experimental evaluation of direct torque-controlled 3-phase induction motor under inverter faults, International Journal of Electronics, 107 (2020) 5: 719-739 (Taylor and Francis).

Bhaskar S S Gupta Yelamurthy, **S Srinivasa Rao**, A Modified Inverter Topology for Fault-Tolerant DTC Induction Motor Drive, International Journal of Electronics, 107 (2020) 12: 1985-2005 (Taylor and Francis).

Bhaskar S S Gupta Yelamurthy, **S Srinivasa Rao,** Predictive Torque Control of Three-Phase Induction Motor Drive with Inverter Switch Fault-Tolerance Capabilities, IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020. DOI: 10.1109/JESTPE.2020.3020328.

Vishnu Prasad M, Bonala AnilKumar, **S. Srinivasa Rao**, Grey Relational Analysis based objective Function Optimization for Predictive Torque Control of Induction Machine, IEEE Transactions on Industry Applications, Vol. 57, No. 1, Jan.-Feb. 2021.

Patil Mounica**, S. Srinivasa Rao**, Bipolar Bidirectional DC-DC Converter for Bi-polar DC Micro-grids with Energy Storage, Journal of Green Engineering (JGE) ,Vol. 11, No. 2, pp. 1060-1074, February 2021.

Patil Mounica, **S. Srinivasa Rao**, Bipolar Bidirectional DC-DC Converter for Bi-Polar DC Micro- grids with Energy Storage Systems, International Journal of Electronics (Taylor & Francis). Pub https://doi.org/10.1080/00207217.2021.1914184.

Chejarla, M.K.D., **Matam, S.K.,** Multiple Solutions for Optimal PMU Placement Using a Topology-Based Method, J. Inst. Eng. India Ser. B 102, 249–259 (2021). https://doi.org/10.1007/s40031-020-00532-y

Laxman bhukya, **Srikanth nandiraju**, A novel photovoltaic maximum power point tracking technique based on grasshopper optimized fuzzy logic approach, international journal of hydrogen energy, Elsevier Publishers Vol 45, Issue 16, 20 March 2020, Pages 9416-9427.

Laxman Bhukya, Anil Annamraju, **Nandiraju Srikanth**, Robust frequency control in a wind-diesel autonomous microgrid: A novel two-level control approach, Renewable Energy Focus, Vol. 36, pp. 21-30, 2021.

Anil Annamraju, **Srikanth Nandiraju**, A novel fuzzy tuned multistage PID approach for frequency dynamics control in an islanded microgrid, International transactions on electrical energy systems, 2020; 30:e12674. https://doi.org/10.1002/2050-7038.12674.

Laxman Bhukya, Anil Annamraju, **Nandiraju Srikanth**, A grey wolf optimized fuzzy logic based MPPT for shaded solar photovoltaic systems in microgrids, International Journal of Hydrogen Energy, Vol. 46, No. 18, pp. 10653-10665, 2021.

Laxman Bhukya, Anil Annamraju, **Nandiraju Srikanth**, A Novel Maximum Power Point Tracking Technique based on Rao-1 Algorithm for Solar PV System under Partial Shading Conditions, International Transactions on Electrical Energy Systems, **Accepted**

Anil Annamraju, Laxman Bhukya, **Srikanth Nandiraju,** Robust frequency control in a standalone microgrid: An adaptive fuzzy based fractional order cascade PD-PI approach, Advanced Control for Applications: Engineering and Industrial Systems. 2021; 1–17. https://doi.org/10.1002/adc2.72.

Vijay Babu K, **Narasimharaju.B.L, D. M. Vinod Kumar**, Performance Investigation on ANFIS and FFNN Assisted Direct and Indirect PV-fed Switched Reluctance Motor Water Pumping System, ' International Journal of Modelling and Simulation, Vol. 27, pp. 1-13 Jan 2021. Doi: doi.org/10.1080/02286203.2021.1875288.

Koyelia Khatun, Venkata Ratnam Vakacharla, Akshay K. Rathore, **B L Narasimharaju,** "Small Signal Analysis and Control of Soft-Switching Naturally-Clamped Snubberless Current-Fed Half-Bridge DC/DC Converter" Journal of Applied Science (MDPI), Energies Section, Special Issue "10th Anniversary of Applied Sciences: Invited Paper in Energy Section, Vol. 10, No. 17, pp. 1-19, 2020.

R. Vakacharla, K. Gnana, P. Xuewei, **B. L. Narasimaharaju,** Mangu Bhukya, Atanu Banerjee, Renu Sharma, Akshay K Rathore, "State-of-the-art Power Electronics Systems for Solar-to-Grid Integration", , Solar Energy, Journal of the International Solar Energy Society, Elsevier, Vol. 210 , No. 1, pp.128-148, Nov 2020.

S. Madhu Babu, **Narasimharaju B. L,** (July 2020) , "Single-phase Boost DC-link Integrated Cascaded Multilevel Inverter for PV Applications", IET Power Electronics, Vol. 13 , No. 10, pp. 2086-2095, Aug- 2020 .

V V K Satyakar , **Porpandiselvi S, Narasimharaju B.L**, (2021), A Non-Isolated Wide Input Series Resonant converter for automotive LED Lighting System, Trans. on IEEE Power Electronics, Vol. 36, No. 5, pp. 5686-5699, May 2021.

V V K Satyakar , **Porpandiselvi S, Narasimharaju B.L,** "Analysis and Implementation of Soft Switched Bi-directional Buck-Boost DC-DC Converter for Solar PV fed LED Street Lighting Systems" , Int. Journal of Circuit Theory & Applications, Wiley Publishers, Vol. 48, pp. 266–285, 2020;.

K. Srinivas and **S. Porpandiselvi**, Cascaded Full-bridge Resonant Inverter Configuration for Different Material Vessel Induction Cooking, IET Power Electronics Journal, Vol. 13, No. 19, pp. 4428-4438, 2020.

K. Srinivas and **S. Porpandiselvi**, Single-Stage Pulse Frequency Controlled AC-AC Resonant Converter for Different Material Vessel Induction Cooking Applications, Wiley International Journal of Circuit Theory and Applications, 10.1002/ cta.3042, 2021.

T. Abhilash, **A. Kirubakaran, and V. T. Somasekhar**, A Three-Phase Five-Level Inverter using Half-bridge Cells and T-NPC for Medium Voltage Applications, *International Journal of Circuit Theory and Applications, 2020, pp.1-22.*

K. Sateesh Kumar, **A. Kirubakaran, and N. Subrahmanyam**, Bi-Directional Clamping Based H5, HERIC and H6 Transformerless Inverter Topologies with Reactive Power Capability, IEEE Transactions on Industry Applications, Vol.56, No.5, pp.5119-5128, 2020.

K. Sateesh Kumar, **A. Kirubakaran, and N. Subrahmanyam,** A Two-Stage T-type Hybrid Five-Level Transformerless Inverter for PV Applications, IEEE Transactions on Power Electronics, Vol.35, No.9, pp.9510-9521, 2020.

Jammy Ramesh Rahul, Chinmay Kumar Das, **A. Kirubakaran, and V.T. Somasekhar,** Impedance Source Based Multilevel Inverter: A state-of-art review, Journal of Circuits, Systems and Computers, Vol.29, No.13, pp.1-31, 2020.

K. Sateesh Kumar, **A. Kirubakaran, and N. Subrahmanyam,** Single-Phase Two-Stage Seven-Level Power Conditioner for Photovoltaic Power Generation System, IEEE

Transactions on Emerging and Selected Topics in Power Electronics, Vol.8, No.1, pp. 794-804, 2020.

Jammy Ramesh Rahul, **A. Kirubakaran,** and Chinmay Kumar Das, Operation, Control and Verification of Seven-Level Quasi-Z Source Based T-Type Inverter, Journal of Circuits, Systems and Computers, Vol.29, No.2, pp.1-25, 2020.

Niveditha Sivadanam, **Nagu Bhookya**, and **Sydulu Maheswarapu**, "Performance Optimization of an Interconnected Power System in the Presence of Plug-in Hybrid Electric Vehicles", 1. Journal of Green Engineering, Vol No. 10, Issue No. 9, pp. 4910-4925, September 2020.(SCOPUS)

Niveditha Sivadanam, **Nagu Bhookya, and Sydulu Maheswarapu**, "Inertial Response and Frequency Control in Electric Vehicles Integrated Renewable and Non-Renewable Power System", Journal of Green Engineering, Vol. 10, No. 11, pp. 10981-10993, November 2020.(SCOPUS).

M. Hareesh, **G. Siva Kumar**, Design Analysis and Switching Losses Reduction of Hybrid Shunt Compensator with Adaptive Control Scheme, International Transactions on Electrical Energy Systems (Wiley), Vol. 31, No. 2, February 2021 (e12716).

A Pranay Kumar, **G Siva Kumar, D Sreenivasarao**, Model predictive control with technique for order of preference by similarity to ideal solution method for four leg distribution static compensator to improve power quality and reduce switching frequency, International Transactions on Electrical Energy Systems (Wiley), Vol. 31, No. 1, January 2021 (e12688).

A Pranay Kumar, **G Siva Kumar, D Sreenivasarao**, Model predictive control with constant switching frequency for four leg DSTATCOM using three dimensional space vector modulation, IET Generation, Transmission and Distribution, Vol. 14, No. 17, pp. 3571 - 3581, September 2020.

M. Hareesh, **G. Siva Kumar,** Energy Management and Control of Single-Stage Grid Connected Solar PV and BES System, IEEE Transactions on Sustainable Energy, Vol. 11, No. 3, pp. 1739-1749, July 2020.

Hari Priya V., **D. Sreenivasarao, G. Siva Kumar,** H. M Suryawanshi, Haitham Abu Rub, A Survey on Reduced Switch Count Multilevel Inverters, IEEE Open Journal of the Industrial Electronics Society, Vol. 2, No. 2, pp. 80-111, February 2021.

Hari Priya V., **D. Sreenivasarao, G. Siva Kumar**, A three-phase transformer based T-type topology for DSTATCOM application, International Journal of Electronics 2021 (Taylor & Francis).

Arun Kumar C R, **Udaya Bhasker Manthati,** Punna Srinivas, Accurate Modelling and Analysis of Battery-Supercapacitor Hybrid Energy Storage System for DC Applications, International Journal of Energy Systems, June-2021, Springer Nature Journal Switzerland Publisher, Switzerland. (SCOPUS).

Arun Kumar C R**, Udaya Bhasker Manthati,** Punna Srinivas, Supercapacitor Based Transient Power Supply for DC microgrid Applications, International Journal of Electrical Engineering, May-2021, https://doi.org/10.1007/s00202-021-01312-7, Springer Nature Journal Switzerland Publisher, Switzerland. (SCI, IF:1.18)

Punna Srinivas, **Udaya Bhasker Manthati,** Arun Kumar CR, "Modeling, Analysis and Control of a Two-Input Bidirectional DC-DC Converter for HESS in DC Microgrid Applications, Journal of International Transactions on Electrical Energy Systems, ITEES-20-0960 on Jan-2021https://doi.org/10.1002/2050-7038.12774, Wiley Publishers, USA. (SCI, IF:1.692).

Punna Srinivas**, Udaya Bhasker Manthati,** Optimum Design and Analysis of a Dynamic Energy Management Scheme for HESS in Renewable Power Generation Applications, International Journal of SN Applied Sciences (SNAS)-2020,https://doi.org/10.1007/s42452-020-2313-3, Springer Nature Journal Switzerland Publisher, Switzerland. (eSCI).

Punna Srinivas, **Udaya Bhasker Manthati,** Modeling of a Double-Input Bidirectional DC-DC Converter for HESS and Unified Controller Design for DC Microgrid Applications, International Journal of Power and Energy Systems-2020, DOI: 10.2316/J.2020.203-0196, Actapress Publisher, Canada. (eSCI).

S. Sreekantha Reddy and **Chandrasekhar Yammani,** "A novel Magic-Square puzzle based one-time PV reconfiguration technique to mitigate mismatch power loss under various partial shading conditions" Optik-International Journal for Light and Electron Optics, In Press, Available online 5 August 2020. (SCI Journal - Impact Factor:2.187).

Gurappa Battapothula, **Chandrasekhar Yammani & Sydulu Maheswarapu**, Optimal Siting and Sizing of Fast Charging Stations by Considering various Load Models in Distribution System International Journal of Emerging Electrical Power Systems (IJEEPS), Accepted for Publication on 03 May 2021. (ISSN: 1553-779X, Web of Science - ESCI Journal - Impact Factor: 0.458).

Pulimamidi Meghana, **Chandrasekhar Yammani** and Surender Reddy Salkuti, Blockchain Technology based Decentralized Energy Management in Multi-Microgrids Including Electric Vehicles" Journal of Intelligent & Fuzzy Systems, vol. Pre-press, no. Pre-press, pp. 1-12, 2021. DOI: 10.3233/JIFS-189766 (ISSN: 1064-1246, SCIE Journal, Impact Factor: 1.851).

S. Sreekantha Reddy and **Chandrasekhar Yammani**, Odd-Even-Prime pattern for PV array to Increase Power Output under Partial Shading Conditions, Energy, The International Journal, Elsevier, Accepted for Publication on 01 September 2020. (ISSN: 0360-5442, SCI Journal - Impact Factor:6.082).

S. Sreekantha Reddy and **Chandrasekhar Yammani**, A novel Magic-Square puzzle based one-time PV reconfiguration technique to mitigate mismatch power loss under various partial shading conditions, Optik-International Journal for Light and Electron Optics, In Press, Available online 5 August 2020. (SCI Journal - Impact Factor:2.187

Kusuma Eshwar and **Vinay Kumar T**, Weighting-Factorless Predictive Torque Control Scheme for Dual Inverter fed Open-End-Winding PMSM with Single DC Source, IEEE Transactions on Power Electronics.

Parvathy M L and **Vinay Kumar T**, An Effective Modulated Predictive Current Control of PMSM drive with Low Complexity, IEEE Journal of Emerging and Selected Topics in Power Electronics 2021.

NR Kedika**, S Pradabane**, Fault-tolerant multi-level inverter topologies for open-end winding induction motor drive, International Transactions on Electrical Energy Systems 31 (2), e12718

D. K. Mathi and **Ramulu Chinthamalla**, Enhanced leader adaptive velocity particle swarm optimization based global maximum power point tracking technique for a PV string under partially shaded conditions, IET Renewable Power Generation, Vol. 14, No. 2, pp. 243-253, Feb, 2020.

D. K. Mathi and **Ramulu Chinthamalla**, Global maximum power point tracking technique based on adaptive salp swarm algorithm and P&O techniques for a PV string under partially shaded conditions. Taylor & Francis; energy sources, part a: recovery, utilization, and environmental effects Vol. 43, No. 20, pp. 2471–2495, 2021.

D. K. Mathi and **Ramulu Chinthamalla**, A hybrid global maximum power point tracking method based on butterfly particle swarm optimization and perturb and observe algorithms for a photovoltaic system under partially shaded conditions, Wiley International Transactions on ElectricalEnergy Systems, Vol. 30, No. 10, pp. e12543,2020.

D. K. Mathi and **Ramulu Chinthamalla**, A Hybrid Global Maximum Power Point Tracking of Partially Shaded PV System under Load Variation by Using Adaptive Salp Swarm and Differential Evolution – Perturb & Observe Technique, Taylor & Francis; energy sources, part a: recovery, utilization, and

environmental effects 2021, , Vol. 43, No. 20, 2471–2495, 2020.

Satish Kumar Injeti, Vinod Kumar Thunuguntla, Optimal integration of DGs into radial distribution network in the presence of plug-in electric vehicles to minimize daily active power losses and to improve the voltage, Protection and Control of Modern Power Systems

Satish Kumar Injeti, Vinod Kumar Thunuguntla, ε-constraint multiobjective approach for optimal network reconfiguration and optimal allocation of DGs in radial distribution systems using the butterfly optimizer, International Transactions on Electrical Energy Systems

Satish Kumar Injeti K. Ravi Kumar, P. Rajesh Kumar, Implementation of MOIDS Algorithm for Optimal Parameter Selection of SFPT for Modern Radars, International Journal of Recent Technology and Engineering.

Satish Kumar Injeti, Butterfly optimizer-assisted optimal integration of REDG units in hybrid AC/DC distribution micro-grids based on minimum operational area, Journal of Electrical Systems and Information Technology

Kotte Sowjanya, **Satish Kumar Injeti**, Investigation of butterfly optimization and gases Brownian motion optimization algorithms for optimal multilevel image thresholding, Expert Systems with Applications.

Altaf Q. H. Badar, *Amjad Anvari Moghaddam,* Smart home energy management system – a review, Advances in Building Energy Research, Taylor and Francis. pp. 1-26, Aug 2020, DOI: 10.1080/17512549.2020.1806925.

R. Jeyasenthil, T. Kobaku, Quantitative synthesis to tracking error problem based on nominal sensitivity formulation, IEEE Transactions on Circuits and Systems II: Express Briefs 2021.

R. Jeyasenthil, D-S. Yoon, S-B. Choi, G.W. Kim, Robust semiactive control of a half-car vehicle suspension system with magnetorheological dampers: Quantitative feedback theory approach with dynamic decoupler, International Journal of Robust and Nonlinear Control 2021.

T. Kobaku, **R Jeyasenthil**, Subham Sahoo, Tomislav Dragicevic, Experimental Verification of Robust PID Controller under Feedforward Framework for a Nonminimum Phase DC-DC Boost Converter, IEEE Journal of Emerging and Selected Topics in Power Electronics 2021.

T.Kobaku, **R Jeyasenthil,** Subham Sahoo, Rijil Ramchand, Tomislav Dragicevic, Quantitative Feedback Design-Based Robust PID Control of Voltage Mode Controlled DC-DC Boost Converter, IEEE Transactions on Circuits and Systems II: Express Briefs 2021.

Deepak Pullaguram, Rubi Rana, Sukumar Mishra, Nilanjan Senroy, Fully distributed hierarchical control strategy for multi-inverter-based AC microgrids, IET Renewable Power Generation.

Rishi Kant Sharma, Sukumar Mishra, **Deepak Pullaguram**, A Robust Hinfinity Multivariable Stabilizer Design for Droop Based Autonomous AC Microgrid, IEEE Transactions on Power Systems.

K. A. Naik, Wind Power Smoothing in Partial Load Region with advanced fuzzy-logic based pitch angle controller, Wind Engineering 2021.

Kanasottu Anil Naik, Real time implementation of interval type-2 fuzzy logic based damping controller for wind integrated power system, Wind Engineering 2021.

Conference publications

Mounika Dasohari, **Vishwanathan Neti, S. Porpandiselvi**, and A V Ratna Manikyavani, An Interleaved Dual Double-Ended Forward Converter based LED Driver for DC Lighting Grids, National Power Systems Conference (NPSC 2020), IIT Gandhinagar, Gujarat, 17th - 19th December, 2020

Hemasundara Rao Kolla, **N. Vishwanathan, Bhagwan K. Murthy,** Output Voltage Modulated Half-Bridge Series Resonant Converter for LED Driver Application, National

Power Systems Conference (NPSC 2020), pp.1-5, IIT Gandhinagar, Gujarat, 17th - 19th December, 2020.

V. Chandra Sekhar, **N. Vishwanathan,** An Efficient DC-Grid Based Half-Bridge LED Driver, National Power Systems Conference (NPSC 2020), pp.1-5, IIT Gandhinagar, Gujarat, 17th - 19th December, 2020.

Bhaskar S S Gupta Yelamarthy, **S. Srinivasa Rao,** Fault-Tolerant Converter Topology for Speed Control of Induction Motor Drive, International Conference on Emerging Frontiers in Electrical and Electronic Technologies (IEEE-ICEFEET 2020). NIT Patna,July 10-11, 2020.

Bhaskar S S Gupta Yelamarthy**, S. Srinivasa Rao,** Scalar Control of Induction Motor Drive with Inverter Fault-Tolerance Capability, International Conference on Emerging Frontiers in Electrical and Electronic Technologies (IEEE-ICEFEET 2020). NIT Patna,July 10-11, 2020.

Ramesh Daravat**, S. Srinivasa Rao,** Control of Two Stage Grid Connected Multi-functional Inverter for Solar Photo Voltaic System, 6th IEEE International Conference for Convergence in Technology (I2CT) 2021", 2 - 4 April 2021, Pune, Maharashtra, India.

Patil Mounica**, S. Srinivasa Rao,** Bipolar Bidirectional DC-DC Converter for Mediumand High Voltage DC Micro grids, 6th IEEE International Conference for Convergence in Technology (I2CT) 2021", 2 - 4 April 2021, Pune, Maharashtra, India.

Satish Reddy Dodda**, S. Srinivasa Rao,** Design and Control of Utility Grid Interfaced Wind Energy conversion System for Bipolar DC Micro Grid, 6th IEEE International Conference for Convergence in Technology (I2CT) 2021", 2 - 4 April 2021, Pune, Maharashtra, India.

Kanithi Ashok Kumar, V VK. Satyakar, **Narasimharaju B. L,** Performance Analysis of Coupled Inductor Based Ripple Free Boost PFC AC-DC LED Driver",9th IEEE Power Electronics, Drives and Energy Systems (PEDES-2020) Biennial Conference, 16th - 19th December, 2020, MNIT Jaipur, pp.1-5.

S. Madhu Babu, **Narasimharaju B. L**, Akshay Kumar Rathore, A New Pulsating DC- link Three Phase Transformerless Inverter for Renewable Applications, 9th IEEE Power Electronics, Drives and Energy Systems (PEDES-2020) Biennial Conference, 16th - 19th December, 2020, MNIT Jaipur, pp.1-5.

Swati Tandon, Narasimharaju B. L, Akshay K. Rathore (2020), A ZVS Series Resonant Current-Fed PWM controlled DC-DC Converter, 2020 IEEE Transportation Electrification Conference & Expo, ITEC2020 (Virtual Mode), 22nd - 26th June, 2020, Navy Pier, in Chicago, Illinois, USA, pp.1-6.

V VK. Satyakar, **Porpandiselvi. S**, K Ashok Kumar, **Narasimharaju B.L,** A Wide Range Soft Switched Interleaved Boost Integrated L-L Type Full-Bridge DC-DC Converter", 9thIEEE Power Electronics, Drives and Energy Systems (PEDES-2020) Biennial Conference, 16th - 19th December, 2020, MNIT Jaipur,pp.1-5.

K. Sateesh Kumar, S. Raghavendran, **A. Kirubakaran**, and S. Umashankar, Single Phase Five-Level Transformerless Inverter for Multi-String Photovoltaic Applications, IEEE Texas Power and Energy Conference (TPEC) 2021, pp.1-6, 2021. 4-5 February 2021, Texas.

Chinmay Kumar Das**, A. Kirubakaran,** and **V.T. Somasekhar,** Improved H5 Circuit Based Five-Level Quasi Z-Source Inverter with Reduced Leakage Current, IEEE PEDES 2020, pp.1-6, 2020.16-19 Dec.2020 MNIT, Jaipur.

Hareesh Myneni, A Pranay Kumar, Somnath A. Mandale, and **G. Siva Kumar,** Active and Reactive Power Control of Grid Tied Asymmetrical MLI based PV System with Reduced Switching Frequency 2nd Electric Power and Renewable Energy Conference (EPREC-2021), 28th-30th May 2021, Organized by the Department of Electrical Engineering, NIT Jamshedpur, and Proceedings Publish in Springer.

Shrihari Saraf, **AV Giridhar**, Shweta Jahagirdar, A design solution to reduce electrical/electronic complexity with secured CAN architecture for an automotive power

system, 2020 IEEE First International Conference on Smart Technologies for Power, Energy and Control (STPEC). 25th-26th Sep 2020, VNIT Nagpur.

Akash Kumar Paul, **AV Giridhar**, Krishna Kumar Rai, **A Kirubakaran**, Generation of Pulsed Power for Radar Application, IEEE 1st International Conference on Power Electronics and Energy (ICPEE 2021), January 2-3, 2021, KIIT, Bhubneshwar, India.

Krishna Kumar Rai, **AV Giridhar**, DR Jahagirdhar, Ashish Rai, Akash Kumar Paul, Mathematical Modelling and Analysis of High Voltage High Pulse Power Supply Performance on Various Loads, IEEE 1st International Conference on Power Electronics and Energy (ICPEE 2021), January 2-3, 2021, KIIT, Bhubneshwar, India

M Kalyan Chakavarthi, **AV Gridhar**, **DVSS Siva Sarma**, G Arun Kumar, Investigation of Log Periodic Dipole Array Printed Antenna for Recognizing Incipient Discharges in Power Transformer, IEEE 1st International Conference on Power Electronics and Energy (ICPEE 2021), January 2-3, 2021, KIIT, Bhubneshwar, India.

NR Kedika, **S Pradabane,** A Nine-Level Inverter for Open Ended Winding Induction Motor Drive with Fault-Tolerance, 2020 IEEE First International Conference on Smart Technologies for Power, Energy and Control (STPEC), 25th-26th September 2020.

BD Lemma, **S Pradabane,** Control of Permanent-Magnet Synchronous Motors Using Fuzzy Logic Considering Parameter Variation and Diagnostic Capability for Hostile Environment Applications, 2020 IEEE First International Conference on Smart Technologies for Power, Energy and Control (STPEC), 25th-26th September 2020.

Lokesh Vankudoth, **Altaf Q. H. Badar,** Rajeev Kumar Chauhan and MJ Hossain, Economic Analysis of Energy Scheduling and Trading in Multiple-Microgrids Environment, IEEE 2021 XVIII International Scientific Technical Conference Alternating Current Electric Drives (ACED), May 24-27, 2021, Ekaterinberg, Russia

Md. Rashid Equabal, Lokesh Vankudoth and **Altaf Q H Badar,** Demand Response Management in Day Ahead Market for Optimal Energy Trading in VPP Framework using PSO, IEEE 2nd International Conference for Emerging Technology (INCET 2021), May 21-23, 2021, Belgaum, India.

Negasa Muleta and **Altaf Q H Badar,** Study of Energy Management System and IoT Integration in Smart Grid, IEEE 1st International Conference on Power Electronics and Energy (ICPEE 2021), January 2-3, 2021, Bhubneshwar, India.

M Ramesh Babu, **Altaf Q H Badar**, and S Balasubramani, Fuzzy-C Means Clustering based ANFIS Wind Speed Forecast, IEEE 21st National Power System Conference (NPSC - 2020), December 17-19, 2020, IIT Gandhinagar, India.

Swati Devabhaktuni, S. P. Selvi, N. Vishwanathan, LED Driver with Three-Phase Series Resonant Converter with Reduced Source Ripple Current, National Power Systems Conference (NPSC 2020), pp.1-5, IIT Gandhinagar, Gujarat, 17th - 19th December, 2020.

Funded Research Projects

Prof.V.T.Somasekhar, Dr. A.Kirubakaran, Design and Development of Cascaded Quasi-Z Source Multilevel Inverter for Grid Connected Photovoltaic System, SERB-DST, EMR/2016/007806, Rs. 41.09 Lakhs.

Dr.A.Kirubakaran, Prof. V.T.Somasekhar: Development of a High Efficiency Single Phase Quasi-Z-Source Based Isolated DC/AC Converter for PV Applications, SERB-DST, EMR/2016/007811, Rs. 33.37 Lakhs.

Dr T Vinay Kumar: Reduction of Torque Ripple in Direct Torque Controlled Three-Phase Permanent Magnet Synchronous Motor Drive for a Hybrid Electric Vehicle**,** SERB-DST, and File No: EEQ/2016/000188, Rs. 30.6 Lakhs.

Dr. I SATISH KUMAR, Development of an efficient framework for optimal allocation of energy sources in a restructured distribution systems including DFACTS and PMU's, DST-SERB, EEQ/2016/000263, Rs. 19.8 Lakhs.

On-going projects:

PI: Dr. B.L Narasimharaju, Co-PIs: Prof. D. M Vinod Kumar, Prof. S. Srinivasa Rao, Dr. A.V. Giridhar, Dr. V. V Mani; Research Collaborators: Dr. Akshay Kurmar Rathore, Concordia University, Canada, Dr. K. Vijay Babu, MIT Manipal. Industry Collaborators: Dr. D. Raveendhra, M/s Zunik Energies Pvt. Ltd., Sri. G. Veeranarayana, M/s. Ademtek: Design and Development of High Efficient Switched Reluctance Motor based Solar Photovoltaic (SPV) Water Pumping System (WPS), IMPRINT.IIC.1, MHRD-SERB, Lr. NO. IMP/2019/000295, Rs.79.8452 Lakhs Including Industry Contribution.

PI: Dr. B.L Narasimharaju, Co-PIs: Dr. A.V. Giridhar, Dr. Ch. Ramulu, Foreign Investigators : Prof. Subhashish Bhattacharya, NCS University, USA; Dr. Akshay Kurmar Rathore, Concordia University, Canada, Dr. Harsih Sarma Krishnamoorty, University of Houston, USA: Design and Development of New High Gain Transformer-less Inverter Topology for PV Based Grid Tie Applications, MHRD-SPARC, SPARC/2018-2019/P1392/SL, Rs.68.99172 Lakhs; Host Institute: Rs.26.05; Total Budget Worth: Rs.95.04 Lakhs.

PI: Dr. B.L Narasimharaju , Co-PIs: Dr. N. Vishwanathan, Dr. S. Porpandiselvi: Design and Development of High-Efficient PFC based AC-DC LED Driver for AC-Grid Fed LED Lighting System, EMR (CRG)-SERB, Lr. NO. EMR/2017/004913, Dt.18-June-2018, Rs. 27.535 Lakhs.

PI: Dr. S. Porpandiselvi, Co-PIs: Dr. B. L. Narasimharaju, Dr. N. Vishwanathan: Development of High PF Grid connected Induction Cooker with Direct AC-AC Conversion for Vessels of Different Material, EMR (CRG)-SERB, CRG/2018/004568, 9th May 2019, Rs. 32.89 Lakhs.

PI: Dr. S. Porpandiselvi, Co-PIs: Dr. B. L. Narasimharaju, Dr. N. Vishwanathan: Design and Development of Efficient Induction Cooker suitable for Vessels of different materials, CPRI, Ministry of Power, Bangalore, RSOP/2019/GD/12, 13th May 2019, Rs. 14.28 Lakhs.

PI: Dr Vinay Kumar T: Investigation and Implementation of Model Predictive Control Strategies to a Multi-Phase Permanent Magnet Synchronous Motor for Photo-Voltaic based Hybrid Electric Vehicle Applications with Reduced Torque Ripple, SERB India, File No : EEQ/2020/000072, Rs. 24.36 Lakhs.

PI: Dr Vinay Kumar T: An EffectivePredictive Torque Controlled Permanent Magnet Synchronous Motor Drive for a Photo-Voltaic based Hybrid Electric Vehicle with Reduced CO2 Emissions, SERB India, and File No: ECR/2018/001541, Rs. 26.2 Lakhs

PI: Dr Deepak Reddy Pullaguram: Convex optimization based economic and stable operation of microgrid system, SERB India, file No. SRG/2020/002557, Dated 18/12/2020, Rs. 32.05 Lakhs.

PI: Dr. Palash Mishra: Design and development of silicone rubber nano-micro composites for outdoor insulation structure under harsh environments, SERB, SRG/2020/000826 dated 17.12.2020, Rs. 27.005 Lakhs.

Dr. Ram Krishan (PI), Dr. Deepak Reddy. P(Co-PI), Dr. Sanjaya K Panda (Co-PI)(CSE), Dr. Venkateswara Rao. K, (Co-PI) (CSE), Dynamic and Static Security Analysis of Large Power System using High-Performance Computing, DST-NSM India, DST/NSM/R&D_HPC_Applications/2021/03.31, dated 23.03.2021, Rs. 45.5816 Lakhs.

Consultancy work details

Prof. Sydulu maheswarapu, Prof. DVSS Siva Sarma, Prof.N.Subrahmanyam, Prof. R

V Chalam, "Somasila-Swarnamuki link canal-Tirupati-Lift irrigation Project," Consultancy-for vetting Electro-mechanical Design Drawings of LIS projects, Funding agency: Govt. Of Andhra Pradesh, Amount: Rs2,95,000/-, duration from 22-9-2020

Patents (Filed, Published, Granted and Licensed)

Filed C N RAVI, **I SATISH KUMAR**, B. HARISH, AOVL VOLTGAE LOAD PROTECTION, Application No. 202041045339. (Filed, 2020)

Books and Book Chapters

Dr Altaf Q. H. Badar, Evolutionary Optimization Algorithms, CRC Press, 2021, ISBN 9780367750541 (First Edition).

Conferences, workshops, FDPs, Webinars organized

Prof. Subhashish Bhattacharya, Foriegn-PI; **B L Narasimharaju, Indian-PI; A. V Giridhar, Co-PI;, Ch. Ramulu, Co-PI;** Five-Day Online INDO-US National SPARC Workshop on "Power Conversion Technologies for Renewable Energy and Micro-Grid Applications", March 02-06, 2021.

Dr. B. Nagu, Dr. Deepak Reddy Pullaguram, Organized a Five Day Faculty Development Program (FDP) on Operationand Control of Various Sources in Microgrid, July 20-24. 2020.

Dr. G Siva Kumar, and Dr. D Sreenivasarao, Organized a Six Day Faculty Development Program (FDP) on "Applications of Power Electronics to Renewable Energy sources and Power Quality Improvement Devices", January 04-09 2021.

Dr. Y Chandrasekhar, a program on "Future Skill Technologies-Internet of Things (IoT)", 16th September- 02nd October, 2020.
Dr. Hari Kumar Voruganti, MED, **Prof. M. Sailja Kumari, EED, Dr. Y. Chandrasekhar, EED,** Dr. R. Arockia Kumar, MME, Organized a Ten Day Faculty Development Program (FDP) on "Universal Human Values in the Context of Student Induction Program", November 02-11, 2020.

Dr. Chandrasekhar Yammani, Dr. Altaf Q H Badar, Dr. P. Srinivasan, Prof. M. Sailaja Kumari, Organized a Five Day Faculty Development Program (FDP) on "Effective Teaching and Learning of techniques for Monitoring, Protection and Control of Microgrids", February 18-22, 2021.

Dr T Vinay Kumar, a program on "Fundamentals of Electrical Drive Controls and Implementation", March 05, 2021.

Dr. P. Srinivasan, Dr. A. Kirubakaran, Prof. V.T. Somasekhar, Organized a Six Day Faculty Development Program (FDP) on "Effective Teaching and Learning of Modern Electric Drives", March 15-20, 2021.

Dr. P. Srinivasan, Dr. S.Porpandiselvi, Dr. N. Vishwanathan, Organized a Six Day Faculty Development Program (FDP) on "Effective Teaching and Learning of Power Converters for Electric Vehicles", March 01-06 2021.

Dr. D. Swati, Dr. S.Porpandiselvi., Dr. N. Vishwanathan, Organized a Six Day Faculty Development Program (FDP) on "Teaching and Learning of Power Converters and Control Techniques for Renewable Energy Systems", March 08-13 2021.

Dr. Jeyasenthil, B L Narasimharaju, Prof. M Sailaja Kumari, Organized a Seven Day Faculty Development Program (FDP) on Teaching and Learning of Advanced Control Systems, August 10-16, 2020.

Dr. Deepak Reddy Pullaguram, Dr. B. Nagu, Organized a Six Day Faculty Development Program (FDP) on Design, Modeling and Control of Renewable Energy Resources, September 07- 12, 2020.

Dr. Debasmita Panda, Dr. Altaf Badar, Dr. Chandrasekhar Yammani , Prof. M. Sailaja Kumari, Organized a Five Day Faculty Development Program (FDP) on 'Smart Grid Markets_Key Trends, Challenges and Opportunities', July 27-31,2021.

Guest Talks/webinars delivered

Prof. Sydulu Maheswarapu, delivered lecture on, "locational marginal prices and financial transmissions right of deregulated power system", AICTE Sponsored Online SIX

DAY STTP ON "Renewable Energy Development in Deregulated Power Market: Future Scenario " Jayamukhi Institute of Technological Sciences, Narsampet, Warangal(R), 14-10-2020,

Prof. Sydulu Maheswarapu, delivered lecture on, "1. Basics of control: open loop-closed loop, Transfer functions, and Control laws 2. PID controls and applications in Robotics or engineering", Mechanical Engg Department-NITW-A Ten Day Online Student Training Programme on Future Skill Technologies "Robotics & Automation, 12-10-2020.

Prof. Sydulu Maheswarapu, delivered lecture on, Artificial Intelligence and Optimization technique applications, Vidya Jyothi Institute of Technology (Autonomous), Hyderabad is organizing an AICTE sponsored STTP (Phase-II) on Hands on training in Artificial Intelligence and Optimization technique applications for additional lab experiments and mini, major projects for B. Tech Engineering students from 07-12-2020 to 12-12-2020, 9-12-2020.

Prof. Sydulu Maheswarapu, delivered lecture on, "Key note speaker-Modern Power system –Challenges", Sree Vidyanikethan Engineering College, Tirupati is going to organize an International E-Conference on Energy, Control, Computing and Electronics Systems (E-ICECCES) on 27 - 29 November, 2020, 27-11-2020.

Prof. Sydulu Maheswarapu, delivered lecture on, "Future Perspective of Electrical & Electronics Engineering", Future Perspective in Electrical & Electronics Engineering – RGUKT-Srikakulam campus-AP-21-12-2020, 21-12-2020.

Prof. Sydulu Maheswarapu, delivered lecture on, "**AI Applications to Smart Grid",** AICTE Sponsored One Week National Level Online Short Term Training Program (STTP) On "RECENT TRENDS AND CHALLENGES IN POWER MARKET WITH SMART GRID TECHNOLOGY" scheduled from 28/12/2020 to 2/1/2021 (Phase-II). V R Siddhartha Engineering College -Vijayawada-520007 Andhra Pradesh, India, 28-12-2020.

Prof. Sydulu Maheswarapu, delivered lecture on, "AI Applications in Power Systems", Dept. Saranathan College of Engineering. An AICTE Sponsored Two week Faculty Development Programme (FDP) on Electrical Paradigm Shift to Cyber Physical Systems and Contemporary Research in Electrical and Electronics Engineering from 03.05.2021 to 15.05.2021, 10-5-21.

Prof. V T Somasekhar, delivered lecture on "Open-end winding Induction Motor Drives" CBIT, Hyderabad, 5th November 2020.

Prof. V T Somasekhar, delivered lecture on "Introduction to Open-end Winding Induction Motor Drives", Gudlavalleru Engineering College, Krishna Dt, Andhra Pradesh, 18th March 2021.

Prof. V T Somasekhar, delivered lecture on "Open-end winding Induction Motor Drives" G H Raisoni Group of Institutes, Pune, Nagpur and Jalgaon, 2nd June 2020.

Prof. N. Vishwanathan, delivered lecture on High Gain Converters, College of Engineering, Pune, 24.09.20

Prof. N. Vishwanathan, delivered lecture on Electrical Power Control, Vasavi College of Engineering, Hyderabad, 16.09.20.

Prof. N. Vishwanathan, delivered lecture on Modelling of DC-DC Converters, Pragati Engineering College, 30.11.20

Prof. N. Vishwanathan, delivered lecture on High Gain Converters, Pragati Engineering College, 2.12.20.

Prof. N. Vishwanathan, delivered lecture on Current mode control, PVP Sidhartha Engg. College, 9.12.20

Prof. N. Vishwanathan, delivered lecture on Modelling of DC-DC Converters, KITS Warangal, 15.12.20

Prof. N. Vishwanathan, delivered lecture on Modelling of DC-DC Converters, NIT Warangal, 5.1.21.

Prof. M.Sailaja Kumari, delivered lecture on Transmission Congestion Management, "Renewable Energy Development in Deregulated Power Market: Future Scenario", 12-17th October 2020 organized by Jayamukhi Institute of Technological sciences, Warangal, 12th October 2020.

Prof. M.Sailaja Kumari, delivered lecture on "Violence - a Universal challenge" **'**ALL India women's conference on International day for elimination of violence on women' held on 22 November 2020. 22 November 2020.

Prof. M.Sailaja Kumari, delivered lecture on 'Universal Human Values' TLC workshop on "Teaching and Learning of Advances in Manufacturing Technologies" 30th November - 4th December 2020 organized by Dept. of Mechanical Engineering, NIT-Warangal, 4th December 2020.

Prof. M.Sailaja Kumari, delivered lecture on 'Universal Human Values' TLC workshop on "Teaching and Learning Strategies of Differential Equations and Applications in Science and Engineering" 28th December 2020 – 1st January, 2021 organized by Department of Mathematics, NIT Warangal, 28th December 2020.

Prof. M.Sailaja Kumari, delivered lecture on "Role of Market, consumers and Utilities in Smart Grid", "Introduction to Smart Grid (ITSG)- (Phase I)" by KDK college of Engineering, Nagpur sponsored by AICTE, New Delhi, 23rd Nov. 2020 to 5th Dec. 2020, 30th November 2020.

Prof. M.Sailaja Kumari, delivered lecture on " Role of Market, consumers and Utilities in Smart Grid" , Introduction to Smart Grid (ITSG)- (Phase II)" by KDK college of Engineering, Nagpur Sponsored by AICTE, New Delhi, 7th to 18th Dec. 2020, 18th December 2020.

Prof. M.Sailaja Kumari, delivered lecture on 'Universal Human Values' TLC workshop on "Effective Teaching and Learning of Techniques for Monitoring, Protection and Control of Micro grids" 18th – 22nd February, 2021, 21 Feb 2021.

Prof. M.Sailaja Kumari, delivered lecture on "Universal Human Values", TLC workshop on "Effective Teaching and Learning of Power Converters for Electric Vehicles" during March 1st – 6th, 2021; 3rd March 2021.

Prof. M.Sailaja Kumari, delivered lecture on 'Universal Human Values' TLC workshop on Teaching and Learning of Power Converters and Control Techniques for Renewable Energy Systems during 8-13 March'2021, 9th march 2021.

Prof. M.Sailaja Kumari, delivered lecture on "Wind speed forecasting using ANN", TLC workshop on Teaching and Learning of Power Converters and Control Techniques for Renewable Energy Systems during 8-13 March'2021, 12 March 2021,

Dr. B L Narasimharaju, delivered lecture on "Power Conditioning & Management Systems in Electric Vehicle", One day webinar on 'Advances in Automobile Engineering', under AICTE Margadarshan, organised by Department of Mechanical Engineering,V.R.Siddhartha Engineering College, Vijayawada,AP. wednesday, April 28th, 2021.

Dr. B L Narasimharaju, delivered lecture on "Power Converters and Control in Smart Power Systems", Five Day Online, FDP on "Challenges and Opportunities in smart grid" organized by the department of EEE, M S Ramaiah Institute of Technology, Bangalore, India, in association with IEEE PES Bangalore chapter. 20-July to 24 -July 2020.

Dr. B L Narasimharaju, delivered lecture on "Power Converters and Control Techniques for Power Management System in Electric Vehicles", AICTE Training and Learning (ATAL)Academy Sponsored One-week Faculty Development Programme on

APPLICATION OF POWER ELECTRONICS IN SMART GRID AND ELECTRIC VEHICLE (APESGEV - 2020), Department of Electrical and Electronics Engineering, Nalla MallaReddy Engineering College, Hyderabad 29th August, 2020.

Dr. B L Narasimharaju, delivered lecture on "Power Management Systems in Electric Vehicles: Power Converters & Control Techniques", TEQIP-III Sponsored, Five Day online FDP on " Power Electronic Applications in Electric Vehicles and Energy Storage " scheduled from 25-29 January 2021., NIT Surathkal, Karnataka.

Dr. B L Narasimharaju, delivered lecture on "Power Converters and Control Techniques for Power Management System in Electric Vehicles", AICTE sponsored Online Short Term training Programme(STTP) on "Recent Trends on Hybrid and Electric Vehicle Technologies" during 6th -11th of July 2020 under the auspices of Mechanical Engineering Department, MVGR College of Engineering, Vizianagaram, Andhra Pradesh, India.

Dr. A. Kirubakaran, delivered lecture on "Integration of Renewable Energy Sources", RAISONI GROUP OF INSTITUTIONS, Nagpur, 08th June, 2020.

Dr. G Siva Kumar, delivered lecture on "Energy Management control by Grid-Connected Inverter of Solar PV and BES System", AICTE Training and Learning (ATAL) Sponsored Online Faculty Development Programme on "Energy Storage" by Indian Institute of Information Technology, Design and Manufacturing (IIITDM), Kancheepuram. October 27-31, 2020.

Dr. A.V. Giridhar, delivered lecture on "Condition Monitoring and Testing of Electrical Equipment" Electrical Engineering Dept., G H Raisoni Institute Engg. & Tech. , Pune in association with IETE and ISTE chapter, 27-08-2020.

Dr. A.V. Giridhar, delivered lecture on, "Pulsed power technology & its emerging applications", AICTE Sponsored Two Week Online Faculfy Development Program of Phase-II during 23/11/2020 to 5/12/2020 on "Advanced Power Electronic Applications in Power Systems (APEAPS-2020)", Sasi Institute Tech & Engg., Tadepalligudem, Andhra Pradesh, 25/11/2020.

Dr. A.V. Giridhar, delivered lecture on, "Recent trends in condition monitoring & diagnostics of electrical power equipments", AICTE Sponsored Two Week Online Faculfy Development Program of Phase-II during 23/11/2020 to 5/12/2020 on "Advanced Power Electronic Applications in Power Systems (APEAPS-2020)", Sasi Institute Tech & Engg., Tadepalligudem, Andhra Pradesh, 01-12-2020.

Dr Chandrasekhar Y, delivered lecture on "Electric vehicle charging stations and its effect on microgrids", KL Univer-E&ICT- -21-6-2021.

Dr Chandrasekhar Y, delivered lecture on "electric vehicle charging stations and its effect on microgrids", Saranathan College of Engineering, 13-5-2021.

Dr Chandrasekhar Y, delivered lecture on "Electric vehicle charging stations and its effect on microgrids", VJIT, HYd, 8-12-2020.

Dr Chandrasekhar Y, delivered lecture on "Electric vehicle charging stations and its effect on microgrids", Matrusri engg college, 28-4-2021.

Dr Chandrasekhar Y, delivered lecture on "COLLABORATIVE DEMAND RESPONSE IN SMART Grid", annamacharya institute of technology, 4-3-2021.

Dr Chandrasekhar Y, delivered lecture on "COLLABORATIVE DEMAND RESPONSE IN SMART Grid", VJIT, HYd, 8-12-2020.

Dr Chandrasekhar Y, delivered lecture on "Optimal dispatch of EV vehicle to grid (VG2) battery storage using p-electre method", Pragathi engg college, 4-12-2020.

Dr Chandrasekhar Y, delivered lecture on "COLLABORATIVE DEMAND RESPONSE IN SMART Grid", kits Warangal, 4-11-2020.

Dr Chandrasekhar Y, delivered lecture on "Research aspects of Electric vehicle charging stations and its effect on distribution systems", QIS College of Engg, Ongole, 27-11-2020.

Dr. Ch.Ramulu, delivered lecture in Five-Day Online Faculty Development Program on "Recent Advances in Electrical Energy Management, Control and Automation", Department OF Electrical and Electronics Engineering, LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS) MYLAVARAM – 521 230, 8th – 12th June, 2021.

Dr. Ch. Ramulu, delivered lecture in AICTE SPONSORED TWO WEEKS ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP) ON Trends and Challenges in Power Converters and Control"Slot-II, DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING, COLLEGE OF ENGINEERING GUINDY ANNAUNIVERSITY, CHENNAI-600025. 4th – 18th May, 2021.

Dr. Ch. Ramulu, delivered lecture in AICTE SPONSORED TWO WEEKS ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP) ON Trends and Challenges in Power Converters and Control " Slot-I, DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING, COLLEGE OF ENGINEERING GUINDY ANNA UNIVERSITY, CHENNAI-600025. 9th – 23rd May, 2021.

Dr. Ch. Ramulu, delivered lecture in One Week Online Faculty Development Programme On Real Time Aspects of Power System Scenario, MAHATMA GANDHI INSTITUTE OF TECHNOLOGY - [MGIT], HYDERABAD, TELANGANA, 6th to 10th July 2020.

Dr. Ch. Ramulu, delivered lecture in AICTE Sponsored STTP-3 on Battery Management and Control Techniques in evs", S J P N Trust's Hirasugar Institute of Technology, Nidasoshi, 14th to 19th December 2020.

Dr. Ch. Ramulu, delivered lecture in AICTE Sponsored STTP-1 on Battery Management and Control Techniques in evs, S J P N Trust's Hirasugar Institute of Technology, Nidasoshi, 23rd to 28th November 2020.

Dr. Ch. Ramulu, delivered lecture in AICTE Training and Learning (ATAL) Academy Sponsored One-week Faculty Development Programme on APPLICATION OF POWER ELECTRONICS IN SMART GRID AND ELECTRIC VEHICLE (APESGEV - 2020). Department of Electrical and Electronics Engineering, Nalla Malla Reddy Engineering College, Hyderabad. August 25-29, 2020.

Dr. Altaf Q. H. Badar, delivered lecture on "Optimization Techniques in Power Systems", SJCE, Chennai (Online), July 23, 2020.

Dr. Altaf Q. H. Badar, delivered lecture on "Smart Home Energy Management Systems", NIT Silchar (Online), September 9, 2020.

Dr. Altaf Q. H. Badar, delivered lecture on "Smart Home Energy Management Systems", KLNCOE, Pottapalayam (Online), December 07, 2020.

Dr. Altaf Q. H. Badar, delivered lecture on "Different NBA Criteria", ACET, Nagpur (Online), February 02, 2021.

Dr. Swati Devabhaktuni, delivered lecture on AI techniques in power electronics, Vidya Jyothi Institute of Technology, Hyderabad, 09.11.2020.

Dr. Deepak Reddy Pullaguram, delivered lecture on "Recent trends in Microgrid techlonologies"FDP Workshop, organized be Electrical Department, Vignan's institute of technology and science, 6 to 11 July 2020.

Dr. Deepak Reddy Pullaguram, delivered lecture on "Peer to Peer Communication applications in Microgrid systems", AICTE Sponsored - Six-Days Online Short Term Training Programme on"Power Utilities and

Artificial Intelligence - Leveraging the Data" by the Department of Electrical & Electronics Engineering, CMR Institute of Technology, Bengaluru- 560 037, 23/11/2020, 11/12/2020, 18/12/2020.

Dr. Deepak Reddy Pullaguram, delivered lecture on "Renewable energy integration into microgrids" Faculty Development Program (FDP) on "Renewable Energy Conversion & Management organized by Department of Electrical Engineering MGM's POLYTECHNIC AURANGABAD, 29/01/2021.

Dr. Deepak Reddy Pullaguram, delivered lecture on "Fractional order based voltage control design for Voltage source converters in autonomous Microgrid", One Week AICTE sponsored Short Term Training Programme on "Fractional Order Robust Control System Design (Series-II) from 23rd – 28th November, 2020, organized by Department of Electrical and Electronics Engineering, Vardhaman College of Engineering, Hyderabad, 27/11/2020

Dr. Deepak Reddy Pullaguram, delivered lecture on "Distributed Control basedMicrogrid Operation", Research Trends in Renewable Photovoltaic systems and its research Challenge from 19 to 24 Oct, 2020, organized by Department of Electrical and Electronics Engineering SVCE, Tirupati,**21/10/2020.**

Dr. K. Anil Naik, delivered lecture on "Wind Energy Grid Integration Challenges and Prospective Solutions", Arya college of Engineering and I.T, Jaipur, INDIA, 28th November, 2020

Dr. K. Anil Naik, delivered lecture on "Wind Energy Conversion systems issues and Prospective Solutions", MGM's Polytechnic, Aurangabad, INDIA, 27th, January, 2021.

Dr. K. Anil Naik, delivered lecture on "Controller Design and Application to Wind Energy Systems", Vardhaman College of Engineering, Hyderabad, INDIA, 20th March, 2021.

Dr. K. Anil Naik, delivered lecture on "AI Applications", in Electrical Engineering, SARANATHAN COLLEGE OF ENGINEERING, Edamalaipatti Pudur, Tamil Nadu, 8th May, 2021.

Dr. K. Anil Naik, delivered lecture on "Communication Networks for SMART GRID", KL University, Andhra Pradesh, 16th June, 2021.

Dr. R. Jeyasenthil, delivered lecture on "Quantitaive Feeback Theory", TEQIP sponsored Faculty Development Program (FDP) on " Robust Control Systems" from 24/04/2021 to 01/05/2021, Organized by the Department of Electrical & Electronics Engineering, Government Engineering College (GEC), Barton Hill, Thiruvananthapuram, Kerala, 01-05-2021.

Dr. Debasmita Panda delivered lecture on 'Restructured Electricity Market', College of Engineering Pune, August 2021

Dr. Debasmita Panda delivered lecture on 'Transactive Energy Market', College of Engineering Pune, August 2021

Awards/ Recognitions/ Achievements

"Active and Reactive Power Control of Grid Tied Asymmetrical MLI based PV System with Reduced Switching Frequency", by Hareesh Myneni, A Pranay Kumar, Somnath A. Mandale, and **G. Siva Kumar**, has been awarded as a Best Paper in the session and the track of the 2nd Electric Power and Renewable Energy Conference (EPREC-2021), 28th-30th May 2021, organized by the Department of Electrical Engineering, NIT Jamshedpur, and Proceedings Publish in Springer.

PhD Research guidance (Completed during the academic year)

Punna Srinivas completed his Ph. D with title "Design, analysis and implementation of Bi-directional Dc-DC Converter for HESS in DC-

micorgrid applications", under the guidance of Dr. Udaya Bhasker Manthati.

T. Abhilash completed his Ph. D with title "Performance Evaluation of Hybrid Multilevel Inverter Topologies for Medium Voltage Applications", under the guidance of Dr. A.Kirubakaran, Prof. V.T.Somasekhar.

K. Sateesh Kumar completed his Ph. D with title "Investigation on Single-Phase Voltage Source based Inverter Topologies for Grid-Connected Photovoltaic Power Generation systems", under the guidance of Dr. A.Kirubakaran, Prof. N. Subrahmanyam.

V K Satyakar Veeramallu completed his Ph. D with title "Development of Soft-switched LED Drivers for Off-Grid Lighting Applications", under the guidance of Dr. S. Porpandielvi, Dr. B L Narasimharaju.

A. Pranay Kumar completed his Ph. D with title "Investigations on Topologies and Control Algorithms of DSTATCOM to Compensate Current Related Power Quality Issues", under the guidance of Dr. G Siva Kumar, Dr. D Sreenivasarao.

Dileep Krishna Mathi completed his Ph. D with title "Investigations on Maximum Power Point Tracking Techniques for Solar Photovoltaic Systems under Partially Shade d Conditions", under the guidance of Dr.Ch .Ramulu.

K. M. Ravi Eswar completed his Ph. D with title "Modified Direct Torque and Predictive Torque Control Strategies for Induction Motor Drive,", under the guidance of Dr T Vinay Kumar.

Bhaskar S S Gupta Yelamarthy completed his Ph. D with title "Investigation on Fault-Tolerant Converter Topologies for Three Phase Induction Motor Drive System,", under the guidance of Dr. S. Srinivasa Rao.

B.Kiran Babu completed his Ph. D with title "Analytical and Meta-Heuristic methods for Multi-objective Optimal DG deployment in Distribution Networks under normal and uncertainty conditions," under the guidance of Prof. Sydulu maheswarapu

A. Anil Kumar completed his Ph. D with title "Investigations on load frequency control of microgrid and interconnected power systems using artificial intelligent Techniques,", under the guidance of Dr. N. V. Srikanth.

B. Gurappa completed his Ph. D with title "Optimal Planning of Electric Vehicle Fast Charging Stations and Distributed Generators in Distribution System", under the guidance of Dr.Chandrasekhar, Prof. M.Sydulu..

C. Srinivasaratnam completed his Ph. D with title "Optimal Scheduling of Micro-Sources and Load Frequency Control in Multi-Microgrid System using Meta-Heuristic Techniques", under the guidance of Dr.Chandrasekhar, Prof. M.Sydulu.

Department Outreach Activities

- **Prof. Sydulu Maheswarapu** is acted as a BOG member, Vaagdevi College of Engineering-Warangal (AY: 2020-2021).
- **Prof. Sydulu Maheswarapu** is acted as a BoG member, NIT Warangal (AY: 2020-2021).
- **Prof. Sydulu Maheswarapu** is acted as a BOS member, PVP Siddartha Institute of Technology, Vijayawada-A P (AY: 2020-2021).
- **Prof. Sydulu Maheswarapu** is acted as a BOS member, Sri Vasavi Engineering College, Tadepalligudem, A P (AY: 2020-2021).
- **Prof. Sydulu Maheswarapu** is acted as a BOS member, SKU College of Engineering and Technology-Ananthapuram-A P (AY: 2020-2021).
- **Prof. Sydulu Maheswarapu** is acted as a BOS member, RGKUT Sreekakulam, AP (AY: 2020-2021).
- **Prof. Sydulu Maheswarapu** is acted as a BOS member, Chadalawada Ramanamma College of Engineering, Tirupathi, AP (AY: 2020-2021).
- **Prof. V T Somasekhar** is acted as a BoS member, Gudlavalleru Engineering College, Krishna (AY: 2020-2021).
- **Prof. V T Somasekhar** is acted as a BoS member, Vignan University, Guntur (AY: 2020-2021).
- **Prof. V T Somasekhar** is acted as BoS member, KITS Warangal (AY: 2020-2021).
- **Prof. V T Somasekhar** is acted as BoS member, CBIT, Hyderabad (AY: 2020-2021).

- **Prof. M.Sailaja Kumari** is acted as a BOS member, KITS Warangal (AY: 2020-2021).
- **Prof. M.Sailaja Kumari** is acted as a BoS member RVRJC college of Engineering, Guntur (AY: 2020-2021).
- **Dr. B L Narasimharaju** is acting Member, Governing Body Council, Vignan Institute of Technology and Science, Vignan Group of Institutions, Telangana, Since January 2020.
- **Dr. B L Narasimharaju** is acting as a Editorial Board Member, International Journal of Advances in Applied Sciences, from 01-December-2020 up to 31-Jan-2023. (3 Years Duration)
- **Dr. B L Narasimharaju** is acting as Editorial Board Member, INTERNATIONAL REFEREED JOURNAL OF ENGINEERING SCIENCE AND TECHNOLOGY (IRJEST), from 04-March-2021 to Till Date.
- **Dr. B L Narasimharaju** is acting as Member, Doctoral Advisory Committee, MIT Manipal, Manipal University, from 2017 to till Date
- **Dr. B L Narasimharaju** is acted as a Selection committee Member, recruiting faculty for Electrical and Electronics Engineering department, on 29.01.2021 (Friday), at Balaji Institute of Technology & Science, Laknepally (Village), Narsampet(M), Warangal District.
- **Dr. B L Narasimharaju** is acted as an Advisor, Zunik Energies Pvt. Ltd, Start-Up company, IIT Roorkee, from September 2017 onwards.
- **Dr. B L Narasimharaju** is acted as an External Examiner, Viva Voce Examination of PhD, Department of Electrical Engineering, Department of Electrical and Electronics Engineering, SRM Institute of Science and Technology, Kattankulathur, Chennai, Tamil Nadu, 12-May-2021
- **Dr. B L Narasimharaju** is acted as an External Examiner, Viva Voce Examination of PhD, Department of Electrical and Electronics Engineering, Anna University, Chennai, Tamil Nadu, 18-June-2020.
- **Dr. G Siva Kumar** is acting as a Editorial Board Member for Global Journal of Energy Technology Research Updates in the field of Energy Research from March 2021.
- **Dr. G Siva Kumar** is acted as a BOS member BOS Member - VNR Vignana Jyothi Institute of Engineering and Technology, Hyderabad (AY: 2020-2021).
- **Dr. G Siva Kumar** is acted as a BOS Member - Institute of Aeronautical Engineering, Hyderabad, Hyderabad (AY: 2020-2021).
- **Dr. G Siva Kumar** is acted as a BOS Member - Bonam Venkata Chalamawa Engineering College, Odalarevu, East Godavari (AY: 2020-2021).
- **Dr. G Siva Kumar** is acted as a BOS Member - University College of Engineering (Kakatiya University), Kothagudem (AY: 2020-2021).
- **Dr. G Siva Kumar** is acted as a BOS Member - University College of Engineering (Kakatiya Uni-ver-sity), Kothagudem (AY: 2020-2021).
- **Dr. A.V. Giridhar** is acted as a BOS Member, Vardhaman College of Engineering, Shamshabad, Hyderabad (AY: 2020-2021).
- **Dr Chandrasekhar Y** is acted as a BoS Member, Amrita Sai Institute of Science and Technology, Paritala, Krishna (AY: 2020-2021).
- **Dr Chandrasekhar Y** is acted as a QIS College of Engineering & Technology, Ongole (AY: 2020-2021).

Electrical Engineering Association (EEA) 2020-21 Activities

Faculty incharge: Dr. Ch. Ramulu

Treasurer: Dr. G. Siva Kumar

General Secretary: Rayadurgam Sneha Sastry

- The pandemic caused a lot of confusion and chaos around the world. Taking up the challenge of a virtual year and keeping up the legacy is a task that **the Electrical Engineering Association** has, was a task the team took upon itself. Right from finding the right platform to a right mix of events that would encourage not just students to connect, network and learn but also reduce the distance between them without compromising on the social distancing, we had made a lot of plans, back-up plans and their back-ups as well because of the uncertainty that had become a part of the air and day.

- A huge portion of the events conducted were based on live talks with the alumni and guests who have been working on real time problems and challenges that the students will be in turn facing once they graduate from the college.
- All the activities and events conducted by the team in the academic year 2020-2021.

S.No.	Events
1	FLASH 2.0
2	Know your branch
Live, Interactive, Career & Mentorship events	
3	Alumni Connect – Software
4	Alumni Connect – Hardware
5	Alumni Connect – Management
6	UPSC Decoded
7	After M.Tech
8	All About AI
9	Off Campus Placement
10	Off Campus Internship
11	Guide to GATE
12	Placement Talk
13	Internship Talk
14	Internship Decrypted
15	Exploring with the Panda Explores
16	Candid Talk with team Tejas
17	Mentorship
18	Acquaintance
Electrical Engineering Industry Expert Lectures	
19	Technology Absorption in Indian Railways
20	Electrical Grid Technology Aspects: From Generation to Utilization Power System Grid Operations under Severe Weather Conditions
21	Advances in Smart Grid & Roadmap to Achieve it
Workshops, Magazines, Podcasts and Experience Series	
22	Cloud Workshop
23	GIT Workshop
24	Resume Building Workshop
25	Placement Experience Series
26	Internship Experience Series
27	GATE Experience Series
28	URA Podcast
29	Perspicacity
Quizzes, Tests and Competitions	
30	Coding Competition
31	Circuit Debugging
32	Code Debugging
33	Mock GATE
34	Mock Software OT
35	Mock Core OT
36	FLASH Quiz
37	Tech Quiz
38	General Quiz
39	Christmas Quiz

Connect and Network	
40	mEEEmify
41	Relay
42	Game A Thon

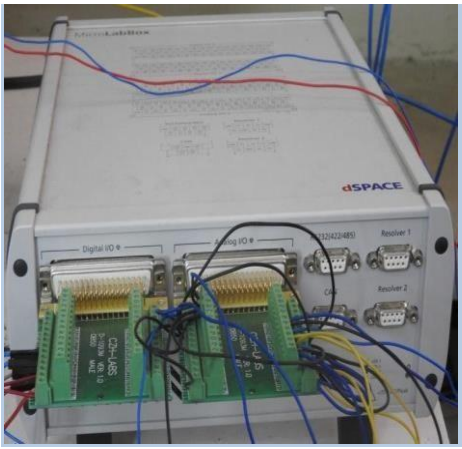
Any other Department Specific



Transmission Line Model



Comprehensive AC Drive



DSPACE MicroLab Box



Hardware In-loop System

Summary

S.No.	Activity	Number
1	**Publications (Peer Reviewed Journals/ conferences)(SCOPUS/SCI)**	
	International Journals	71
	International Conferences	15
2	**Funded Research Projects/SPARC projects (2019-20)**	
	Completed Projects	4
	Ongoing Projects (Rs. 4.05 Crores)	10
	IMPRINT PROJECT (Rs. 79.85 Lakhs)	1
	CPRI (Rs. 14.28 Lakhs)	1
	SPARC (Rs. 95.04 Lakhs)	1
	DST, DST-NSM (Rs.21.56 Crore)	7
3	**SPARC Project Workshops**	**1**
4	**Consultancy Works (2019-20)**	**Rs. 6.49 Lakhs**
5	**Patents**	**1**
	Awarded	0
	Filed	1
6	**Books and Book Chapters**	**1**
	Books	1
	Book Chapters	0
7	**Conferences/ Workshops/GIAN courses/FDPs Conducted**	**13**

8	**Guest talks/ Webinars delivered**	**71**
9	**Awards/Recognitions/Achievements**	**1**
10	**Research Guidance (Completed in 2019-20)**	**12**
11	**Students Achievements**	
	Placements	
	B.Tech	**68 %**
	MTech	**32.19 %**
12	**Electrical Engineering Association Activities**	**42**
13	**Distinguished Guests visiting the Department/Delivering Expert Lecture/Keynote Address**	**3**
14	**Outreach Programmes**	**37**

DEPARTMENT OF MECHANICAL ENGINEERING

Brief History of the Department, Academic Programs

The Department of Mechanical Engineering was established in the year 1959. The department presently offers one Under Graduate Programme, i.e., B.Tech in Mechanical Engineering with an intake of around 170 students, seven M.Tech programs - Thermal Engineering, Manufacturing Engineering, Computer Integrated Manufacturing, Machine Design, Automobile Engineering, Materials and Systems Engineering Design, Additive Manufacturing – one P.G Diploma in Additive Manufacturing and Ph.D programs. At present, the Department has 48 faculty members with research expertise in different specializations of Mechanical Engineering. The Department has good research facilities for both experimental as well as simulation-based research. The department has liaison with reputed industries and R&D organizations such as NFTDC, DMRL, DRDL, ARCI, BHEL, CMTI, CPRI etc. All the faculty of the department are actively engaged in R&D and Consultancy. Presently the department is handling about 25 funded projects worth Rs. 3.00 Crores. The department has recently acquired a metal 3D printer at a cost of Rs.1.4 Crores under TEQIP -III grants. The institute is establishing SIEMENS Centre of Excellence in digital manufacturing and Industry 4.o in manufacturing in which the department is playing a key role. The department produces a large number of publications, and offers solutions to the industry regularly and is also active with regular outreach activities like workshops, conferences and executive programs for industry personnel. The department has been recognized as QIP Centre for M.Tech and Ph. D. programmes.



Faculty Details:

S. No	Name of the Faculty	Highest Qualification	Research Interests	Photograph
1	**Dr. Adepu Kumar, Professor**	PhD	Friction stir welding/Processing, Additive Manufacturing, Electrical Discharge Machining, Fabrication and characterization of Micro/Nano composites	
2	**Dr. K. Madhumurthy, Professor**	PhD	Thermal Engineering; IC Engines; Biofuels; Entrepreneurship; Industrial and Small Enterprise Management	
3	**Dr. C. Surya Prakasa Rao, Professor**	PhD	Manufacturing	
4	**Dr. S. Srinivasa Rao, Professor**	PhD	Two-phase flow, I.C. Engines, Experimental Heat Transfer, Solar Energy	
5	**Dr. P. Bangaru Babu, Professor**	PhD	Mechanical Vibrations; Vibration Control; Finite Element Analysis; Mechanism Science; Engineering Design, Rotor Dynamics, Vehicle Dynamics.	

6	**Dr. A. Venugopal, Professor**	PhD	Conventional and Unconventional Machining, Coatings for High Speed Machining, Rapid Prototyping, Metrology	
7	**Dr. N. Selvaraj**	PhD	Modeling and Simulation, Flexible Manufacturing System, CNC Technology, Machine tools, Pull Systems and Composite Materials.	
8	**Dr. P. Ravi Kumar, Professor**	PhD	I.C. Engines, Alternate Fuels, Design of Air Car, Fuel Cell Car(Solar/Hydrogen), Flying car, Engine Simulation, Lean burn combustion, Adiabatic engine, CNG & HCNG engine, Exhaust gas re-circulation, Turbocharger engines.	
9	**Dr. G. Amba Prasada Rao, Professor**	PhD	IC Engines; Engine Exhaust emission control; Alternate fuels; HCCI, Combustion	
10	**Dr. L. Krishnanand, Professor**	PhD	Industrial Engineering ; CAD/CAM ; Supply Chain Management ; Additive Manufacturing	
11	**Dr. A. Neelakanteswara Rao, Professor**	PhD	Operations Management, Supply Chain Management, Theory of Constraints, Quality Engineering and Management	

12	**Dr. K. V. Sai Srinadh, Professor**	PhD	Mechanical behavior of materials, Manufacturing process	
13	**Dr. R. Narasihma Rao, Professor**	PhD	Tribology, Kinematics & Dynamics of Machinery, Machine Design, Finite Element Methods, Advanced Light Weight Composites	
14	**Dr. V. Suresh Babu, Professor**	PhD	Mechanism, Dynamics, Vibrations, Composite Material, Fault Diagnosis	
15	**Sri. I. A. K. Reddy, Associate Professor**	M.Tech	Elements of Mechanical Engineering	
16	**Sri. G. R. K. Gupta, Associate Professor**	M.Tech	CFD, Turbo-machines, Jet propulsion	
17	**Dr. A. Veeresh Babu, Associate Professor**	PhD	IC Engines, Alternate Fuels, Emissions control, Fuel cell, Refrigeration and Air-conditioning	

18	**Dr. Y. Ravi Kumar, Associate Professor**	PhD	CAD/CAM/CIM, rapid prototyping, additive manufacturing, 3D printing, Bio-CAD, Bio-printing	
19	**Dr. M. Joseph Davidson, Associate Professor**	PhD	Metal Forming, CAD/CAM, Statistical Modeling	
20	**Dr. P. Subash Chandra Bose, Associate Professor**	PhD	Machining of high temperature alloys, CNC technologies, Optimization techniques, composite materials	
21	**Dr. V. Vasu, Associate Professor**	PhD	Nano-materials, Nano-fluids, Nano-composites, Material testing Sustainable manufacturing, Metal cutting, Micro-Nano Machining Mechatronics & Systems Controls	
22	**Dr. G. Naga Srinivasulu, Associate Professor**	PhD	I.C. Engines; Heat Transfer and Turbo machines	
23	**Dr. P. Vamsi Krishna, Associate Professor**	PhD	Sustainable Manufacturing; Application of solid lubricants in machining; Application of nano-materials in machining.	

24	**Dr. K. Kiran Kumar, Associate Professor**	PhD	Thermal Engineering; Heat Transfer; Nano-fluids; Refrigeration & Air-Conditioning; CFD; Non-Conventional Energy sources.	
25	**Dr. V. Rajesh Khnana Raju, Associate Professor**	PhD	Fluid Dynamics, Heat Transfer, CFD, Combustion, Microfluidics	
26	**Dr. Srikanth Korla, Associate Professor**	PhD	Vibration Analysis and Energy Harvesting, Structural Health Monitoring, Composite Laminates	
27	**Dr. Hari Kumar Voruganti, Associate Professor**	PhD	Geometric Modeling for CAD, Finite Element / Iso-geometric Analysis, Robotics and Applied Optimization.	
28	**Dr. D. Jaya Krishna, Associate Professor**	PhD	Utilization of Solar energy, CFD, Latent heat storage materials, Aerodynamics of cricket ball, Heat line visualization, heat transfer in porous media	
29	**Dr. B. Satish Ben, Associate Professor**	PhD	Structural Health Monitoring, Tool Condition Monitoring, Nano Composites	

30	**Dr. V. P. Chandra Mohan, Associate Professor**	PhD	(i) Computational Fluid Dynamics(ii) Convection and conduction heat transfer(iii) Drying and Simultaneous solution of heat and mass transfer(iv) Alternative fuels and Hydrogen fuel cell(v) Experimental heat transfer	
31	**Dr. T. Sadasiva Rao, Assistant Professor**	PhD	Manufacturing Engg. & Foundry Technology	
32	**Dr. Syed Ismail, Assistant Professor**	PhD	Surface Texturing; Lubrication;	
33	**Dr. Karthik Balasubramania n, Assistant Professor**	PhD	Microchannel Flow Boiling; Phase Change Heat Transfer; Microfluidics; Thermal management; Solar Thermal; Solar PV and Hybrid systems; HVAC systems.	
34	**Dr. G. Raghavendra, Assistant Professor**	PhD	Composites, Nano materials, Tribology, Polymer Composites.	
35	**Dr. Gudipadu Venkatesh, Assistant Professor**	PhD	Abrasive Flow Machining, Magnetic Abrasive finishing, Non-traditional manufacturing processes, Microwave Material processing, Hybrid Machining, Advanced Manufacturing Processes, Surface Engineering.	

36	**Dr. Vijay Kumar Manupati, Assistant Professor**	PhD	Manufacturing Systems Design, Supply Chain Management, Health Care Systems Optimization and Simulation, Intelligent Manufacturing Systems, Soft Computing Techniques including Artificial and Machine Intelligence Techniques.	
37	**Dr. P. Suresh, Assistant Professor**	PhD	Distributed-Reconfigurable (1D-3D) and Integrated macro/microsensors design.; Non-Destructive Testing and Wave Propagation.; Temperature-dependent materials property measurement of solids/fluids.; Also, interest in Advanced Energy.	
38	**Dr. Marrapu Bhargava, Assistant Professor**	PhD	Metal forming - sheet metal forming, formability evaluation and prediction, hydroforming and formability at elevated temperatures,Mechanical behaviour of materials, Heat treatment processes, Material model development	
39	**Dr. Hari Krishna Chilukoti, Assistant Professor**	PhD	Nanaoscale Heat and Mass Transfer; Molecular Dynamics	
40	**Dr. Anant kumar Rai, Assistant Professor**	PhD	Fluid mechanics, Hydraulic turbines, Turbomachinery, Hydropower, Renewable Energy, Material wear testing, Sediment Transport	
41	**Dr. Shivraman, Assistant Professor**	PhD	Welding, wear, corrosion and welding metallurgy	
42	**Dr. Manjaiah M, Assistant Professor**	PhD	Advanced manufacturing, shape memory alloys, additive manufacturing, surface engineering	

43	**Dr. Gaurav Kumar Sharma, Assistant Professor**	PhD	Computer aided design, digital manufacturing,product design	
44	**Dr. Satyanand Abraham, Assistant Professor**	PhD	Thermal Management Of Electronic Package, Gas Turbines and vehicle Battery, Waste Heat Recovery, Surface Wettability	
45	**Dr. Gangadharudu Talla, Assistant Professor**	PhD	Non- traditional machining, metal cutting, surface engineering, micro machining	
46	**Dr. Thamarai Selvan, Assistant Professor**	PhD	Computational solid mechanics,contact mechanics,FEM,FGM, layer substrate systems	
47	**Dr. Prasanth Anand Kumar Lam, Assistant Professor**	PhD	Computational Fluid Dynamics and Heat Transfer, Electronics Cooling, Heat Transfer Augmentation, Heat Exchanger Design, Refrigeration & Air-Conditioning	
48	**Dr. Chinige Sampath Kumar, Assistant Professor**	PhD	Liquid metal cooling, jet impingement, porous media , lattice Boltzmann method	

Journal Publications

S. Chandrasekhar and **V.R.K. Raju**, Effect of thermal boundary conditions on heat transfer performance of liquid-liquid Taylor flow through a microchannel with obstruction,The canadian journal of chemical engineering, 2021 (SCI)

Ganesh R. Gawale, **G. Naga Srinivasulu**, Experimental investigation of various ethanol blends impact on combustion and emissions characteristics of diesel ignited dual fuel HCCI engine,World Journal of Engineering© Emerald Publishing Limited (ESCI), 2021 (ESCI)

Ganesh R. Gawale, **G. Naga Srinivasulu**, Experimental investigation of various ethanol blends impact on combustion and emissions characteristics of diesel ignited dual fuel HCCI engine,World Journal of Engineering, © Emerald Publishing Limited (ESCI), 2021 (ESCI)

VB Marri, **MM Kotha, Amba Prasad Rao Gaddale**, Experimental investigations on the influence of higher injection pressures and retarded injection timings on a single cylinder CRDi diesel engine,International Journal of Ambient Energy 42 (4), 444-457, 2021 (SCOPUS)

K Siva Prasad, **VRK Raju** and **S Srinivasa Rao**, Effect of compression ratio and fuel injection pressure on the characteristics of a CI engine operating with butanol/diesel blends,Alexandria Engineering Journal, 2021: no. 1, 1183-1197., 2021 (SCI)

K Siva Prasad, **VRK Raju** and **S Srinivasa Rao**, Effect of EGR on the performance and emission characteristics of DI-CI engine fuelled with butanol/diesel blends,Environmental progress & Sustainable Energy,(2021) ep.13658, 2021 (SCI)

G K Sharma, B Gurumoorthy, Computation of Discrete Medial Axis Using Local Search in Domain Delaunay Triangulation of a Solid,ASME. J. Comput. Inf. Sci. Eng. April 2021; 21(2): 021001, 2021 (SCI)

G Talla, RT Varughese, S Gangopadhyay, Surface Integrity Enhancement of Incoloy 825 During Electric Discharge Machining,Journal of The Institution of Engineers (India): Series C, 2021 (SCOPUS)

P Venkateswara Babu, **Syed Ismail and B Satish Ben**, Experimental and numerical studies of positive texture effect on friction reduction of sliding contact under mixed lubrication,IMechE, Part J: Journal of Tribology, Vol. 235, Iss. 2, pp. 360-375, 2021 (SCI)

Annadi Ramana Reddy, **Syed Ismail**, Tribological performance of textured parallel sliding contact under mixed lubrication condition by considering mass conservation condition and couple-stress parameter,IMechE, Part J: Journal of Tribology, Vol. 235, Iss. 2, pp. 410-422, 2021 (SCI)

Avinash Borgaonkar, **Ismail Syed**, Friction and wear behaviour of composite MoS2–TiO2 coating material in dry sliding contact,Journal of the Brazilian Society of Mechanical Sciences and Engineering, Springer, 43(1),1-13, DOI: 10.1007/s40430-020-02721-8, 2021 (SCI)

Borgaonkar A.V., **Syed I.**, Computational Analysis of Composite MoS2-TiO2-ZrO2 Soft Coating on Tribological Performance in Dry Sliding Contact.,Lecture Notes in Mechanical Engineering, Advanced Manufacturing Systems and Innovative Product Design, 2021 (Scopus)

Avinash V. Borgaonkar, **Ismail Syed**, Shirish H. Sonawane, Fabrication and Characterization of Composite MoS2-TiO2 Coating Material,IMechE Part C: Journal of Mechanical Engineering Science, Accepted, 2021 (SCI)

Avinash Borgaonkar, **Ismail Syed**, Tribological Investigation of Composite MoS2-TiO2-ZrO2 Coating Material by Response Surface Methodology Approach,ASME Journal of Tribology, Accepted, 2021 (SCI)

Valaparla Ranjith Kumar, **Karthik Balasubramanian, K Kiran Kumar**, Numerical study on significance of wave amplitude, wavelength and aspect ratio on heat transfer and fluid flow characteristics in circular wavy MC heat sink design,Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, DOI: 10.1177/0954406221989378, 2021 (SCIE)

Khirod Kumar, Gaurav Mahendra , Abhishek Markandeya, and **P.Vamsi Krishna**, Design Of Co2 Based Cooling System For Machining Of Ti-6al-4v Using Joule Thomson Effect, Smart and Sustainable Manufacturing Systems,Smart and Sustainable Manufacturing Systems, 2021 (SCOPUS)

Babu, B.H., Rao, K.V., **Ben, B.S.**, Modeling and optimization of dead metal zone to reduce cutting forces in micro-milling of hardened AISI D2 steel,Journal of applied polymer science 43,

142, 2021, 2021 (SCI)

Raj Kumar Pittala, **B. Satish Ben**, B. Avinash Ben, Self-healing performance assessment of epoxy resin and amine hardener encapsulated polymethyl methacrylate microcapsules reinforced epoxy composite,Journal of applied polymer science, Vol. 138, Issue 23, Article id: e50550, 2021, 2021 (SCI)

Raj Kumar Pittala, **Satish Ben B**, Avinash Ben B, Effect of epoxy resin healing agent viscosity on the self-healing performance of capsules reinforced polymer composite,Journal of polymer research, Vol. 28, Article no. 102, 2021, 2021 (SCI)

Raj Kumar Pittala, **Satish Ben B**, Syam Kumar Ch, Niranjan Prasad, Numerical investigation into effect of self-healing composite microcapsules thickness and diameter on their failure strength,World Journal of Engineering, Vol. 18, Issue. 3, pp.373-378, 2021, 2021 (Scopus)

Venkateswara Babu P, **Syed Ismail** and Satish Ben, Experimental and numerical studies of positive texture effect on friction reduction of sliding contact under mixed lubrication,Proc IMechE Part J: J Engineering Tribology,Vol. 235, 2, pp. 360-375, 2021, 2021 (SCI)

Babu, B.H., Rao, K.V., **Ben, B.S.**, Modeling and optimization of dead metal zone to reduce cutting forces in micro-milling of hardened AISI D2 steel,Journal of applied polymer science 43, 142 https://doi.org/10.1007/s40430-021-02861-5, 2021, 2021 (SCI)

Raj Kumar Pittala, **B. Satish Ben**, B. Avinash Ben, Self-healing performance assessment of epoxy resin and amine hardener encapsulated polymethyl methacrylate microcapsules reinforced epoxy composite,Journal of applied polymer science, Vol. 138, Issue 23, Article id: e50550, 2021, 2021 (SCI)

Raj Kumar Pittala, **Satish Ben B**, Avinash Ben B, Effect of epoxy resin healing agent viscosity on the self-healing performance of capsules reinforced polymer composite,Journal of polymer research, Vol. 28, Article no. 102, 2021, 2021 (SCI)

Raj Kumar Pittala, **Satish Ben B**, Syam Kumar Ch, Niranjan Prasad, Numerical investigation into effect of self-healing composite microcapsules thickness and diameter on their failure strength,World Journal of Engineering, Vol. 18, Issue. 3, pp.373-378, 2021, 2021 (Scopus)

Venkateswara Babu P, **Syed Ismail** and Satish Ben, Experimental and numerical studies of positive texture effect on friction reduction of sliding contact under mixed lubrication,Proc IMechE Part J: J Engineering Tribology,Vol. 235, 2, pp. 360-375, 2021, 2021 (SCI)

Thirupathi Samala, **Vijaya Kumar Manupati**, Bethalam Brahma Sai Nikhilesh, MLR Varela, Goran Putnik, Job Adjustment strategy for Predictive Maintenance in Semi-Fully flexible systems based on Machine Health Status,Sustainability, 2021, 13(9), p.5295, 2021 (SCI)

Goran Putnik, **Vijaya Kumar Manupati**, Sai Krishna Pabba, Leonilde Varela, Francisco Ferreira, Semi-Double-loop Machine Learning based CPS approach for Predictive Maintenance in Manufacturing system based on machine status indications,CIRP Annals, 2021, 2021 (SCI)

Thirupathi Samala, **Vijaya Kumar Manupati**, MLR Varela, Goran Putnik, Investigation of Degradation and Upgradation models for Flexible Unit Systems,Future Internet, 2021, 13(3), p.57, 2021 (ESCI)

Thirupathi Samala, **Vijaya Kumar Manupati**, Bethalam Brahma Sai Nikhilesh, MLR Varela, Goran Putnik, Job Adjustment strategy for Predictive Maintenance in Semi-Fully flexible systems based on Machine Health Status,Sustainability, 2021, 13(9), p.5295, 2021 (SCI)

Goran Putnik, **Vijaya Kumar Manupati**, Sai Krishna Pabba, Leonilde Varela, Francisco Ferreira, Semi-Double-loop Machine Learning based CPS approach for Predictive Maintenance in Manufacturing system based on machine status indications,CIRP Annals, 2021, 2021 (SCI)

Thirupathi Samala, **Vijaya Kumar Manupati**, MLR Varela, Goran Putnik, Investigation of Degradation and Upgradation models for Flexible Unit Systems,Future Internet, 2021, 13(3), p.57, 2021 (ESCI)

Guo, B., Xiao, Y. X., **Rai, A. K.**, Liang, Q. W. and Liu, J., Analysis of the air-water-sediment flow behavior in Pelton buckets using a Eulerian-Lagrangian approach,Energy, 218 (2021) 119522, 2021 (SCI)

K Manoj, V N Murthy, **S Korla**, Performance of a Cantilever Energy Harvester under Harmonic

and Random Excitations,Defence Science Journal 71 (2), 231, 2021 (Sci)

T. Zhou, Z. Wu, **H.K. Chilukoti**, F. Müller-Plathe, Sequence-Engineering Polyethylene–Polypropylene Copolymers with High Thermal Conductivity Using a Molecular-Dynamics-Based Genetic Algorithm,Journal of Chemical Theory and Computation, 2021 (SCI)

E. Lee, **H.K. Chilukoti**, F. Müller-Plathe, Rebound Suppression of a Droplet Impacting on a Supersolvophobic Surface by a Small Amount of Polymer Additives,ACS Macro Letters 10 (2), 192-196, 2021, 2021 (SCI)

Ganesh R. Gawale, **G. Naga Srinivasulu**, Experimental investigation of various ethanol blends impact on combustion and emissions characteristics of diesel ignited dual fuel HCCI engine,World Journal of Engineering, © Emerald Publishing Limited (ESCI), 2021 (ESCI)

Boggarapu, Vasavi, **Raghavendra Gujjala**, Shakuntla Ojha, Sk Acharya, Somaiah Chowdary, and Dheeraj kumar Gara, State of the art in functionally graded materials,Composite Structures (2021): 113596, 2021 (SCI)

Minugu, Om Prakash, **Raghavendra Gujjala**, Ojha Shakuntala, Panchal Manoj, and M. Somaiah Chowdary, Effect of biomass derived biochar materials on mechanical properties of biochar epoxy composites,Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science (2021): 0954406221990705., 2021 (SCI)

Boggarapu, Vasavi, **Raghavendra Gujjala**, Shakuntla Ojha, Sk Acharya, Somaiah Chowdary, and Dheeraj kumar Gara, State of the art in functionally graded materials,Composite Structures (2021): 113596, 2021 (SCI)

Minugu, Om Prakash, **Raghavendra Gujjala**, Ojha Shakuntala, Panchal Manoj, and M. Somaiah Chowdary, Effect of biomass derived biochar materials on mechanical properties of biochar epoxy composites,Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science (2021): 0954406221990705., 2021 (SCI)

E. Anusha, **Adepu Kumar**, S M Shariff, Finite element analysis and experimental validation of high-speed laser surface hardening process,The International Journal of Advanced Manufacturing Technology, https://doi.org/10.1007/s00170-021-07303-z, 2021 (SCI)

MVNV Satyanarayana, **Adepu Kumar**, Effect of microstructure and precipitate formation on mechanical and corrosion behavior of friction stir processed AA6061 alloy using different cooling media,Journal of Materials: Designs and Applications, 2021 (SCI)

MVNV Satyanarayana, **Adepu Kumar**, Krnathi Kumar Kethavath, Towards finding a novel constant between local and bulk strength of friction stir processed aluminium alloys,Journal of Materials: Designs and Applications, 2021 (SCI)

Krnathi Kumar Kethavath, MVNV Satyanarayana, **Adepu Kumar**, Effect of friction stir welding parameters on the material flow, mechanical properties and corrosion behavior of dissimilar AA5083-AA6061 joints,Journal of Mechanical Engineering Sciences, 2021 (SCI)

Krishna Kishore Mugada, **Kumar Adepu**, Material flow and mechanical properties of friction stir welded Al-Mg-Si alloy: Role of concentric circles shoulder with non-circular pins,Journal of Mechanical Engineering Sciences, 2021 (SCI)

Ramakrishna Balijepalli, **V. P. Chandramohan, K. Kirankumar**, S. Suresh, Numerical analysis on flow and performance characteristics of a small scale solar updraft tower (SUT) with horizontal absorber plate and collector glass,Journal of Thermal Analysis and Calorimetry, 2020 (SCI)

Ramakrishna Balijepalli, **V. P. Chandramohan, K. Kirankumar**, S. Suresh, Numerical analysis on flow and performance characteristics of a small scale solar updraft tower (SUT) with horizontal absorber plate and collector glass,Journal of Thermal Analysis and Calorimetry, 2020 (SCI)

MuralikrishnaBoni, **S.Srinivasarao, G.Nagasrinivasulu**, Performance evaluation of an Air Breathing –Direct methanol fuel cell with different cathode current collectors with liquid electrolyte layer.,Asia-pacific journal of chemical engineering (Wiley) (SCI), 2020 (SCI)

Venkateswarlu Velisala, Gandhi Pullagura and **Naga Srinivasulu Golagani**, Numerical study of serpentine flow field designs effect on proton exchange membrane fuel cell (PEMFC)

performance,Chemical Product and Process Modeling(SCI), 2020 (SCI)

MuralikrishnaBoni, **S.Srinivasarao, G.Nagasrinivasulu**, Performance evaluation of an Air Breathing –Direct methanol fuel cell with different cathode current collectors with liquid electrolyte layer.,Asia-pacific journal of chemical engineering (Wiley) (SCI), 2020 (SCI)

Muralikrishna Boni, **Srinivasa Rao Surapaneni, Naga Srinivasulu Golagani**, and Sateesh Kumar Manupati, Experimental investigations on the effect of current collector open ratio on the performance of a passive direct methanol fuel cell with liquid electrolyte layer,Chemical Papers (Springer) (SCI), 2020 (SCI)

Venkateswarlu Velisala, Gandhi Pullagura and **Naga Srinivasulu Golagani**, Numerical study of serpentine flow field designs effect on proton exchange membrane fuel cell (PEMFC) performance,Chemical Product and Process Modeling(SCI), 2020 (SCI)

MR Rao, **GAP Rao**, BVN Charyulu, H Singh, Numerical studies and validation of combustor and annular isolatorinteractions of hydrocarbon based axisymmetric dual combustion ramjet,Aerospace Science and Technology 106, 106185, 2020 (SCI)

KN Ramesh, TK Sharma, **GAP Rao**, Latest Advancements in Heat Transfer Enhancement in the Micro-channel Heat Sinks: A Review,Archives of Computational Methods in Engineering, 1-31, 2020 (SCI)

MR Rao, **GAP Rao**, A Kumar, Experimental validation of liquid hydrocarbon based fuel rich gas generator for high speed propulsion systems,Acta Astronautica 174, 180-188, 2020 (SCI)

D Savary Nasan, T Karthikeya Sharma, **G Amba Prasad Rao**, Numerical Technique for Resolving the Dual Phase Lag Heat Conduction in Thin Film Metal,Heat Transfer Engineering 41 (6-7), 665-675, 2020 (SCI)

VB Marri, **MM Kotha**, **Amba Prasad Rao Gaddale**, Production process optimisation of Sterculia foetida methyl esters (biodiesel) using response surface methodology, International Journal of Ambient Energy, 1-10, 2020 (SCOPUS)

VB Marri, **K Madhu Murthy, G Amba Prasad Rao**, Optimization of operating parameters of an off-road automotive diesel engine running at highway drive conditions using Response Surface Methodology,Journal of Energy Resources Technology, 1-48, 2020 (SCI)

Shivraman Thapliyal, D.K. Dwivedi, Fatigue performance of friction stir welded Al2024 alloy in a different corrosive environment,Material Science and Engineering Technology 51(2),174-180, 2020 (SCI)

K Siva Prasad, **VRK Raju and S Srinivasa Rao**, Parametric optimization of a direct injection-compression ignition engine fuelled with butanol/diesel blend using response surface methodology,Environmental Progress & Sustainable Energy (2020):no. 3, e13355, 2020 (SCI)

K Siva Prasad, **VRK Raju and S Srinivasa Rao**, Comparative study on single-injection and pilot-injection strategies for DI CI engine fuelled with the butanol/diesel blend,International Journal of Ambient Energy 2020, no. 11 : 1227-1234, 2020 (ESCI)

Shasidhar Rampalli, T. Manoj Dundi, S. Chandrasekhar, **V. R. K. Raju and V. P. Chandramohan**, Numerical Evaluation of Liquid Mixing in a Serpentine Square Convergent-divergent Passive Micromixer, Chemical Product and Process Modeling,2020, 15(2), 2020 (ESCI)

Akash Patel, **V. R. K. Raju**, Numerical analysis of heat transfer characteristics of Taylor slug flow through microchannel with obstruction,The International Journal of Engineering and Science (IJES), 2020, (E)ISSN : 2319 – 1813 (p)ISSN : 2319 – 1805, 16-21, 2020 ()

S. Chandrasekhar and **V.R.K. Raju**, Two-phase flow and heat transfer through wavy microchannel,The International Journal of Engineering and Science, 2020, ISSN (e): 2319 – 1813 ISSN (p): 23-19 – 1805, 2020 (Open access)

Shanta Chakrabarty, **Marrapu Bhargava**, Harsh K. Narula, Sushil Mishra and Prita Pant, Prediction of strain path and forming limit curve of AHSS by incorporating microstructure evolution,International Journal of Advanced Manufacturing Technology, 2020 (SCI)

Abhay Bhanudas Lingayat, **V.P. Chandramohan, V. R. K. Raju**, Energy and Exergy Analysis on Drying of Banana Using Indirect Type Natural Convection Solar Dryer,Heat Transfer Engineering, Taylor & Francis, 2020, 41 (6-7), 551-561, DOI: 10.1080/01457632.2018.1546804., 2020 (SCI)

Abhay Bhanudas Lingayat, **Chandramohan V.P., V.R.K. Raju**, Venkatesh Meda, A Review on Indirect Type Solar Dryers for Agricultural Crops – Dryer Setup, its performance, energy storage and important highlights,Applied Energy, Elsevier, IF = 8.4, 258, 2020, 114005, DOI: 10.1016/j.apenergy.2019.114005., 2020 (SCI)

Ramakrishna Balijepalli, **Chandramohan V.P., Kirankumar K.**, Development of a small scale plant for a solar chimney power plant (SCPP): A detailed fabrication procedure, experiments and performance parameters evaluation,Renewable Energy, Elsevier, IF = 5.4, 148 (2020) 247-260. DOI: 10.1016/j.renene.2019.12.001., 2020 (SCI)

Satyapal Yadav, **V.P. Chandramohan**, Performance comparison of thermal energy storage system for indirect solar dryer with and without finned copper tube,Sustainable Energy Technologies and Assessments, Elsevier, IF = 3.4, 37 (2020) 100609, DOI: 10.1016/j.seta.2019.100609, 2020 (SCI)

V.P. Chandramohan, Convective drying of food materials: An overview with fundamental aspect, recent developments, and summary, Heat Transfer – Asian Research, Wiley, SCI, IF = 0.85, Published in online 7th Jan. 2020. DOI: 10.1002/htj.21662., 2020 (SCI)

Abhay Lingayat, **Chandramohan V.P., Raju V.R.K.**, Anil Kumar, Development of Indirect Type Solar Dryer and Experiments for Estimation of Drying Parameters of Apple and Watermelon,Thermal Science and Engineering Progress, Elsevier, IF = 1.1, Available online 11 January 2020, 100477, DOI: 10.1016/j.tsep.2020.100477., 2020 (SCI)

Pritam Das, **Chandramohan V.P.**, 3D numerical study on estimating flow and performance parameters of solar updraft tower (SUT) plant: Impact of divergent angle of chimney, ambient temperature, solar flux and turbine efficiency,Journal of Cleaner Production, Elsevier, IF = 5.7, 256 (2020) 120353, https://doi.org/10.1016/j.jclepro.2020.120353., 2020 (SCI)

Ravichandra Datla, **Ravi Kumar Puli, Chandramohan V. P.**, Edwin Geo V., Effect of start of main injection timing on performance, emission, and combustion characteristics of a VGT CI engine fueled with neem Biodiesel, Environmental Science and Pollution Research, Springer, IF = 3.2, Accepted: 25 February 2020, https://doi.org/10.1007/s11356-020-08231-3., 2020 (SCI)

Pritam Das, **Chandramohan V.P.,** Performance characteristics of divergent chimney solar updraft tower plant,International Journal of Energy Research, Wiley, IF = 3.34, 2020;1–16. Accepted: 18 February 2020, DOI: 10.1002/er.5304., 2020 (SCI)

Ramakrishna Balijepalli, **Chandramohan V.P., Kirankumar K.**, S. Suresh, Numerical analysis on flow and performance characteristics of a small-scale solar updraft tower (SUT) with horizontal absorber plate and collector glass,Journal of Thermal Analysis and Calorimetry, Springer, IF = 2.73, Published on 22nd July 2020. https://doi.org/10.1007/s10973-020-10057-7, 2020 (SCI)

Pritam Das, **Chandramohan V.P.**, Estimation of flow parameters and power potential of solar vortex engine (SVE) by varying its geometrical configurations: A numerical study,Energy Conversion and Management, Elsevier, IF = 8.2, Published in online 11th Aug. 2020, 223 (2020) 113272. https://doi.org/10.1016/j.enconman.2020.113272, 2020 (SCI)

Abhay Bhanudas Lingayat, **Chandramohan V.P., V.R.K. Raju**, Venkatesh Meda, A Review on Indirect Type Solar Dryers for Agricultural Crops – Dryer Setup, its performance, energy storage and important highlights,Applied Energy, Elsevier, IF = 8.4, 258, 2020, 114005, DOI: 10.1016/j.apenergy.2019.114005., 2020 (SCI)

Syed, I. and Sarangi, M.,, Influence of surface textures on the hydrodynamic performance of parallel sliding contacts in turbulent regime.,Journal of the Brazilian Society of Mechanical Sciences and Engineering, 42(1), 1-11, 2020 (SCI)

V. Borgaonkar, A., & **Syed, I.**, Effect of coating material properties on the lubrication performance of rolling contacts under TEHL regime.,Australian Journal of Mechanical Engineering, 1-8., 2020 (Scopus)

Borgaonkar, A. V., & **Syed, I.**, Effect of coatings on rolling contact fatigue and tribological parameters of rolling/sliding contacts under dry/lubricated conditions: a review.,Sādhanā, Vol. 45(1), pp. 1-16, 2020 (SCI)

Venkateswara Babu, P., **Ismail Syed, Satish Ben, B.**, Experimental investigation on effects of positive texturing on friction and wear reduction of piston ring/cylinder liner system,Materials Today Proceedings. Vol. 24, pp. 1112-1121, 2020 (Scopus)

Prasad K. N., and **Syed I.**, Influence of Surface Textures by Ink-Jet Print Followed by Chemical Etching Process on the Performance of HSS Cutting tool,Lecture Notes in Mechanical Engineering, Advances in Applied Mechanical Engineering, Springer, Singapore, pp. 603-610., 2020 (Scopus)

A.V. Borgaonkar, **S. Ismail**, Effect of Temperature on the Tribological Performance of MoS2-TiO2 Coating Material,Lecture Notes in Mechanical Engineering, Advances in Applied Mechanical Engineering, Springer, Singapore, pp. 611-618., 2020 (Scopus)

Babu, P.V., **Syed, I., Ben, B.S.**, Optimization of Texture Geometry for Enhanced Tribological Performance in Piston ring-Cylinder Liner Contact under Pure Hydrodynamic and Mixed Lubrication,Lecture Notes in Mechanical Engineering, Innovative Product Design and Intelligent Manufacturing Systems, Springer, Singapore, pp. 799-808., 2020 (Scopus)

Syed I. and Sarangi, M.,, Influence of surface textures on the hydrodynamic performance of parallel sliding contacts in turbulent regime.,Journal of the Brazilian Society of Mechanical Sciences and Engineering, 42(1), 1-11, 2020 (SCI)

V. Borgaonkar, A., & **Syed I.**, Effect of coating material properties on the lubrication performance of rolling contacts under TEHL regime.,Australian Journal of Mechanical Engineering, 1-8., 2020 (Scopus)

Borgaonkar, A. V., & **Syed, I.**, Effect of coatings on rolling contact fatigue and tribological parameters of rolling/sliding contacts under dry/lubricated conditions: a review.,Sādhanā, Vol. 45(1), pp. 1-16, 2020 (SCI)

Venkateswara Babu, P., **Ismail Syed, Satish Ben, B.**, Experimental investigation on effects of positive texturing on friction and wear reduction of piston ring/cylinder liner system,Materials Today Proceedings. Vol. 24, pp. 1112-1121, 2020 (Scopus)

Prasad K. N., and **Syed I.**, Influence of Surface Textures by Ink-Jet Print Followed by Chemical Etching Process on the Performance of HSS Cutting tool,Lecture Notes in Mechanical Engineering, Advances in Applied Mechanical Engineering, Springer, Singapore, pp. 603-610., 2020 (Scopus)

A.V. Borgaonkar, **S. Ismail**, Effect of Temperature on the Tribological Performance of MoS2-TiO2 Coating Material,Lecture Notes in Mechanical Engineering, Advances in Applied Mechanical Engineering, Springer, Singapore, pp. 611-618., 2020 (Scopus)

Khirod Kumar, and **P.Vamsi Krishna**, Performance study of CO2 based vortex tube cooling system in turning of Ti-6Al-4V,Smart and Sustainable Manufacturing Systems, 2020 (SCOPUS)

D Venkata Sivareddy, **P Vamsi Krishna**, and **A Venu Gopal**, Determination of Constitutive Material Model Constants for Ti6Al4V Alloy at near Orthogonal Machining Conditions,,Materials Performance and Characterization, 2020 (SCOPUS)

D Venkata Sivareddy, **P Vamsi Krishna, and A Venu Gopal**, Tool-work Contact Ratio and Parametric Influence in Ultrasonic Vibration Assisted Turning of Ti6Al4V Alloy,Journal of Testing and Evaluation, 2020 (SCI)

A N Jinoop, C P Paul, J Denny, S K Nayak, **P Vamsi Krishna**, K S Bindra, Laser Additive Manufacturing of Hastelloy-X Thin Walls using Directed Energy Deposition: Parametric Investigation and Multi-Objective Analysis,Lasers in Engineering, 46(1-4), 2020, 15-34., 2020 (SCOPUS)

Srinu Gugulothu, **Vamsi Krishna Pasam**, Experimental investigation to study the performance of CNT/MoS2 Hybrid nanofluid in Turning of AISI1040 steel,,Australian Journal of Mechanical Engineering.2020, 2020 (SCOPUS)

Srinu Gugulothu and **P Vamsi Krishna**, Testing and Performance Evaluation of

Vegetable Oil Based Hybrid Nano cutting fluids,,Journal of Testing and Evaluation, 48(5), 2020, 2020 (SCI)

A Prasad Reddy, **P Vamsi Krishna and R N Rao**, Mechanical and wear properties of aluminum-based nanocomposites fabricated through ultrasonic assisted stir casting,Journal of Testing and Evaluation, 48(4), 2020., 2020 (SCI)

Neelam Parimala, Gaurav Mahendra and **P. Vamsi Krishna**, Modelling and simulation of nanofluids to study cooling and lubrication effect.,Materials Today: Proceedings, 22(4), 2020, 2941-2949., 2020 (SCOPUS)

Syam Kumar Chokka, **B. Satish Ben, K. V Sai Srinadh**, Optimization of process parameters for rehabilitation of pipes through adhesive bonding an experimental study,Journal of Adhesion Science and Technology, 2020, Vol. 34, 5, pp.497-510, 2020 (SCI)

Venkateswara Babu P, **Syed Ismail and Satish Ben**, Influence of positive texturing on friction and wear properties of piston ring-cylinder liner tribo pair under lubricated conditions,Industrial Lubrication and Tribology, Vol. 71, 4, pp. 515-524, 2019, 2020 (SCI)

Venkateswara Babu P, **Syed Ismail and Satish Ben**, Experimental investigation on effects of positive texturing on friction and wear reduction of piston ring/cylinder liner system,Materials Today: Proceedings Vol. 24, pp 1112–1121, 2020, 2020 (Scopus)

Syam Kumar Chokka, **B. Satish Ben, K. V Sai Srinadh**, Optimization of process parameters for rehabilitation of pipes through adhesive bonding an experimental study,Journal of Adhesion Science and Technology, 2020, Vol. 34, 5, pp.497-510, 2020 (SCI)

Venkateswara Babu P, **Syed Ismail and Satish Ben**, Influence of positive texturing on friction and wear properties of piston ring-cylinder liner tribo pair under lubricated conditions,Industrial Lubrication and Tribology, Vol. 71, 4, pp. 515-524, 2019, 2020 (SCI)

Vijaya Kumar Manupati, Ramkumar M, Vinit Baba, Aayush Agarwal (2020), Selection of Best Healthcare Waste Disposal Techniques During and Post COVID-19 Pandemic Era,Journal of Cleaner Production, 2020, 281, p.125175, 2020 (SCI)

V K Manupati, Tobias sehoenherr, Ram kumar.M, Stephan M, Wagner, Sai Krishna, Inder raj singh, A Block chain based approach for multi echelon sustainable supply chain,International Journal of Production research, 2020, 58(7), pp.2222-2241., 2020 (SCI)

Varela, M.L.R., **Manupati, V.K.**, Panigrahi, S., Costa, E. and Putnik, G.D., Using social network analysis for industrial plant layout analysis in the context of industry 4.0,International Journal of Industrial and Systems Engineering, 2020, 34(1), pp.1-19., 2020 (SCI)

Vijaya Kumar Manupati, Ramkumar M, Vinit Baba, Aayush Agarwal (2020), Selection of Best Healthcare Waste Disposal Techniques During and Post COVID-19 Pandemic Era,Journal of Cleaner Production, 2020, 281, p.125175, 2020 (SCI)

N. Praveena Devi, Ch. Srinivasa Rao, **K. Kiran Kumar**, Thermodynamic Analysis of Fe3O4Nanofluid Flowing Through A Circular Tube,International Journal of Engineering and Advanced Technology, 2020 (2020)

ValaparlaRanjith Kumar, **Karthik Balasubramanian, K Kiran Kumar**, Numerical investigation of heat transfer and fluid flow characteristics in circular wavy microchannel with tangentially branched secondary channels,Journal of Process Mechanical Engineering, 2020 (2020)

N. Praveena Devi, Ch. Srinivasa Rao, **K. Kiran Kumar**, Thermodynamic Analysis of Fe3O4Nanofluid Flowing Through A Circular Tube,International Journal of Engineering and Advanced Technology, 2020 (2020)

ValaparlaRanjith Kumar, **Karthik Balasubramanian, K Kiran Kumar**, Numerical investigation of heat transfer and fluid flow characteristics in circular wavy microchannel with tangentially branched secondary channels,Journal of Process Mechanical Engineering, 2020 (2020)

Anant Kumar Rai, Arun Kumar, Thomas Staubli and Xiao Yexiang, Interpretation and application of the hydro-abrasive erosion model from IEC 62364 (2013) for Pelton turbines,Renewable Energy, 2020, 160, 396-408, 2020 (SCI)

Bao Guo, Yexiang Xiao, **Anant Kumar Rai**, Jin Zhang and Quanwei Liang, Sediment-laden flow and erosion modeling in a Pelton turbine

injector,Renewable Energy Volume 162, pp 30-42, 2020 (SCI)

Naresh Kali, Sandeep Pathak, **Srikanth Korla**,, Effect on vibration characteristics of fiber metal laminates sandwiched with natural fibers, Materials Today: Proceedings 28, 1092-109, 2020 (Scopus)

A M Gollapudi, V Vasu , **Srikanth Korla**, Modeling and simulation of a high-redundancy direct-driven linear electromechanical actuator for fault-tolerance under various fault conditions,Engineering Science and Technology, an International Journal, 23(2020) 1171-1181, 2020 (SCi)

Siva Prasad Kattela, **Srinivasa Rao Surapaneni, Raju VRK**, Parametric optimization of a direct injection-compression ignition engine fuelled with butanol/diesel blend using response surface methodology,Environmental Progress & Sustainable Energy, 2020, 39, ep.13355, 2020 (SCI)

Srinivasa Reddy Badduri, **G Naga Srinivasulu, S Srinivasa Rao**, Influence of bio-inspired flow channel designs on the performance of a PEM fuel cell,Chinese Journal of Chemical Engineering, 2019, 28, 824-831, 2020 (SCI)

Suresh G NSR **Kanmani subbu, CSPR,** Enhanced mechanical properties ofAA6061-B4C composites developed by a novel ultra-sonic assisted stir casting,Engineering science and technology, an international journal (Elsevier), 44216 (SCI)

Suresh G NSR **Kanmani subbu CSPR**, Experimental investigation and mathematical medeling for material removal and tool wear in making of rectangular channels by EDM on Aluminium Boron Carbide composite sintered preform,Advances in Applied Mechanical Engineering, 2020 (Scopus)

Suresh G NSR **Kanmani subbu CSPR**, Enhanced mechanical properties ofAA6061-B4C composites developed by a novel ultrasonic assisted stir casting,Engineering science and technology, an international journal (Elsevier), 2020 (SCI)

Suresh G NSR **Kanmani subbu CSPR**, Experimental investigation and mathematical modeling for material removal and tool wear in making of rectangular channels by EDM on Aluminium Boron Carbide composite sintered preform,Advances in Applied Mechanical Engineering, 2020 (Scopus)

Suresh G , **N Selvaraj**, DTS Chandra, S Kanmani Subbu and **CSP Rao**, A study on geometrical features of electric discharge machined channelson AA6061-4%B4C composites,International Journal of Measurement and control, 2020 (SCI)

Suresh G , **Selvaraj N**, T Sarath Chandra, Kanmani Subbu S, and **Surya Prakasa Rao C,** Effect of Process Parameters on Volume and Geometrical Features of ElectricDischarge Machined Channels on a CastAA6061-B4C Composite,Advances in Materials Processing, 2020 (Scopus)

Suresh Gudipudi, Vipul Kumar Patel, **N. Selvaraj**, S. Kanmani Subbu and **C. S. P. Rao,** FEA-Based Electrothermal Modelingof a Die-Sinker Electro DischargeMachining (EDM) of an Aluminum Alloy AA6061,Numerical Optimization in Engineering and Sciences, 2020 (Scopus)

Pagidi Madhukar, **N. Selvaraj, C.S.P. Rao**, G.B. Veeresh Kumar, Enhanced performance of AA7150-SiC nanocomposites synthesized by novelfabrication process,Ceramics International, 2020 (SCI)

Pagidi Madhukar, **N. Selvaraj**, Vipin Mishra and **C. S. P. Rao**, Optimization of Wear Parameters of AA7150-TiC Nanocomposites by Taguchi Technique,Numerical Optimization in Engineering and Sciences, 2020 (Scopus)

Muralikrishna Boni, **Srinivasa Rao Surapaneni, Naga Srinivasulu Golagani**, and Sateesh Kumar Manupati, Experimental investigations on the effect of current collector open ratio on the performance of a passive direct methanol fuel cell with liquid electrolyte layer,Chemical Papers (Springer) (SCI), 2020 (SCI)

Ganesh R. Gawale & **G. Naga Srinivasulu**, Experimental investigation of propanol dual fuel HCCI engine performance: Optimization of propanol mass flow rate, impact of butanol blends (B10/B20/B30) as fuel substitute for diesel,Fuel Journal, (Elsevier)(SCI), 2020 (SCI)

Ganesh R. Gawale & **G. Naga Srinivasulu**, Experimental investigation of propanol dual fuel HCCI engine performance: Optimization of propanol mass flow rate, impact of butanol blends (B10/B20/B30) as fuel substitute for

diesel,Fuel Journal, (Elsevier)(SCI), 2020 (SCI)

Rajasekhar, Kotikala, **V. Suresh Babu, M. J. Davidson, and G. Raghavendra.**, Formability and densification behavior of two-layered structure powder metallurgical hot-pressed Al-Cu/Al composites during hot-upsetting,Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering (2020): 0954408920971974, 2020 (SCI)

Prakash, M. Om, **G. Raghavendra**, S. Ojha, Manoj Panchal, and Dheeraj Kumar, Investigation of tribological properties of biomass developed porous nano activated carbon composites,Wear, 203523, ISSN NO: 0043-1648, 2020 (SCI)

Chowdary, M. Somaiah, **G. Raghavendra**, MSR Niranjan Kumar, S. Ojha, and Vasavi Boggarapu, Influence of Nano-Silica on Enhancing the Mechanical Properties of Sisal/Kevlar Fiber Reinforced Polyester Hybrid Composites,Silicon, pp1-8, https://doi.org/10.1007/s12633-020-00846-y, ISSN NO: 1876-9918., 2020 (SCI)

Chowdary, M. Somaiah, **G. Raghavendra**, MSR Niranjan Kumar, Shakuntala Ojha, and M. Om Prakash, A review on the degradation of properties under the influence of liquid medium of hybrid polymer composites,.SN Applied Sciences, volume 2, no. 10 pp1-12. ISSN NO: 2523-3971, 2020 (SCI)

Panchal M, **Raghavendra G**, Omprakash M, Ojha S, Experimental Investigation of Mechanical and Erosion behavior of Eggshell nanoparticulate Epoxy Biocomposite,Polymers and Polymer Composites, 2020 (SCI)

Panchal M, **Raghavendra G**, Omprakash M, Ojha S, Fabrication and Characterization of Silica Based Ceramic Composite for Filtration Applications,Silicon. 2020 Jul 14:1-0, 2020 (SCI)

Om Prakash M, **Gujjala R**, Panchal M, Ojha S, Mechanical characterization of arhar biomass based porous nano activated carbon polymer composites,Polymer Composites. 2020 Apr 23., 2020 (SCI)

Ojha S, Anjali A, **Gujjala R.**, Extraction and Characterization of Carbon from Bio Waste,Silicon. 2020 Apr;12(4):779-87., 2020 (SCI)

Naidu PP, **Raghavendra G**, Ojha S, Paplal B, Effect of gC3N4 nanofiller as filler on mechanical properties of multidirectional glass fiber epoxy hybrid composites,Journal of Applied Polymer Science. 2020 Mar 5;137(9):48413, 2020 (SCI)

Boggarapu V, **Gujjala R**, Ojha S, A critical review on erosion wear characteristics of polymer matrix composites,Materials Research Express. 2020 Feb 24;7(2):022002., 2020 (SCI)

Rajasekhar, Kotikala, **V. Suresh Babu, M. J. Davidson, and G. Raghavendra.**, Formability and densification behavior of two-layered structure powder metallurgical hot-pressed Al-Cu/Al composites during hot-upsetting,Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering (2020): 0954408920971974, 2020 (SCI)

Prakash, M. Om, **G. Raghavendra**, S. Ojha, Manoj Panchal, and Dheeraj Kumar, Investigation of tribological properties of biomass developed porous nano activated carbon composites,Wear, 203523, ISSN NO: 0043-1648, 2020 (SCI)

Chowdary, M. Somaiah, **G. Raghavendra**, MSR Niranjan Kumar, S. Ojha, and Vasavi Boggarapu, Influence of Nano-Silica on Enhancing the Mechanical Properties of Sisal/Kevlar Fiber Reinforced Polyester Hybrid Composites,Silicon, pp1-8, https://doi.org/10.1007/s12633-020-00846-y, ISSN NO: 1876-9918., 2020 (SCI)

MVNV Satyanarayana, **Adepu Kumar**, Influence of cooling media in achieving grain refinement of AA2014 alloy using friction stir processing,Journal of Mechanical Engineering Sciences, 234 (22) 4524-4530, 2020, 2020 (SCI)

MVNV Satyanarayana, **Adepu Kumar**, Karan Chauhan, Effect of overlapping friction stir processing on microstructure, mechanical properties and corrosion behavior of AA6061 alloy,Metals and Materials International, 2020 (SCI)

MVNV Satyanarayana, **Adepu Kumar**, Praveen Reddy, Preparation of bulk-area stir zone in aluminium 6061 alloy via cryogenic friction stir processing,Materials Today, 2020 (SCOPUS)

V K Manupati, Tobias sehoenherr, Ram kumar.M, Stephan M, Wagner, Sai Krishna, Inder raj singh, A Block chain based approach for multi echelon sustainable supply chain,International Journal of Production research, 2020, 58(7), pp.2222-2241., 2020 (SCI)

Varela, M.L.R., **Manupati, V.K.,** Panigrahi, S., Costa, E. and Putnik, G.D., Using social network analysis for industrial plant layout analysis in the context of industry 4.0,International Journal of Industrial and Systems Engineering, 2020, 34(1), pp.1-19., 2020 (SCI)

V K Manupati, Tobias sehoenherr, Ram kumar.M, Stephan M, Wagner, Sai Krishna, Inder raj singh, A Block chain based approach for multi echelon sustainable supply chain,International Journal of Production research, 2020, 58(7), pp.2222-2241., 2020 (SCI)

Varela, M.L.R., **Manupati, V.K.**, Panigrahi, S., Costa, E. and Putnik, G.D., Using social network analysis for industrial plant layout analysis in the context of industry 4.0,International Journal of Industrial and Systems Engineering, 2020, 34(1), pp.1-19., 2020 (SCI)

M. Manjaiah, S. Narendranath, S. Basavarajappa, V. N. Gaitonde,, Some Investigations on Wire Electric Discharge Machining Characteristics of Titanium Nickel Shape memory Alloy,Transactions of Nonferrous Metals Society of China 24, (2014) 3201−3209, 2020 (SCI)

S. Narendranath, **M. Manjaiah**, S. Basavarajappa, V. N. Gaitonde,, Experimental investigations on performance characteristics in Wire EDM of Ti50Ni42.4Cu7.6 shape memory alloy,Proceedings of the Institution of Mechanical Engineers, Part B, Journal of Engineering Manufacture. 227, (2013) 1180-1187., 2020 (SCI)

Sri Chaitanya Ch; **R. Narasimha Rao**, Tribological Behaviour of Cenosphere Filled Epoxy Syntactic Foams in Dry Sliding Conditions,Journal of Tribology, ASME, MAY 2020, Vol. 142 / 051701(1-7), 2020 (SCI)

Sri Chaitanya Ch; **R. Narasimha Rao**, Effect of addition of reinforcements on the tribological behaviour of the polymer based syntactic foams,Materials Today: Proceedings, 10.1016/j.matpr.2019.12.070, 30122019, 2020 (SCOPUS)

Sri Chaitanya Ch; **R.Narasimha Rao**, Influence of Manufacturing Variances on the Strength of Pressure Vessels – A Numerical Study,,Arabian Journal for Science and Engineering (AJSE), 2020 (SCI)

Sanjaya K Sahoo, Srinivas Kuchipudi, **R Narasimha Rao**, Manoj K Buragohain, Ch. Sri Chaitanya, Application of Low Field Magnetic Resonance for Defect Detection in Multi-layered Cylindrical Composite Structures,Non-destructive Testing and Evaluation (NDTE), 2021 (SCI)

Sanjaya K Sahoo, Srinivas Kuchipudi, **R Narasimha Rao**, Manoj K Buragohain, Ch. Sri Chaitanya, Detection of Planar defects in multi-layered GFRP composite structures using low field NMR,Materials Evaluation, 2021 (SCI)

Marrapu Bhargava, Vivek K Barnwal, Shanta Chakrabarty,Sushil Mishra and Asim Tewari , Experimental and Numerical Analysis on Dual Phase Steel (DP780) Sheet Forming Limit and Effect of Microstructure Evolution on Formability,Journal Of Materials Engineering & Performance, 2020 (SCI)

Marrapu Bhargava, Effect of localization criteria and yield criteria in predicting the FLD of DP 590 steel sheets,Advances in Materials & Processing Technologies, 2021 (SCOPUS)

Sanjay Krishna Vihari R, Kartheek Gamidi, and **Vamsi Krishna P**, Parametric influence on residual stresses in VAT,Materials Today: Proceedings, 2021 (SCOPUS)

D Venkata Sivareddy, **P Vamsi Krishna**, and A Venu Gopal, Experimental Investigation on Flank Wear of the Tool in Ultrasonic Vibration Assisted Turning of Ti6Al4V Alloy,Smart and Sustainable Manufacturing Systems, 5(1), 2021, 101-112., 2021 (SCOPUS)

Khirod Kumar, Gaurav Mahendra , Abhishek Markandeya, and **P.Vamsi Krishna**, Design Of Co2 Based Cooling System For Machining Of Ti-6al-4v Using Joule Thomson Effect, Smart and Sustainable Manufacturing Systems,Smart and Sustainable Manufacturing Systems, 2021 (SCOPUS)

Khirod Kumar, and **P.Vamsi Krishna**, Performance study of CO2 based vortex tube

cooling system in turning of Ti-6Al-4V,Smart and Sustainable Manufacturing Systems, 2020 (SCOPUS)

D Venkata Sivareddy, **P Vamsi Krishna**, and A Venu Gopal, Determination of Constitutive Material Model Constants for Ti6Al4V Alloy at near Orthogonal Machining Conditions,,Materials Performance and Characterization, 2020 (SCOPUS)

D Venkata Sivareddy, **P Vamsi Krishna,** and A Venu Gopal, Tool-work Contact Ratio and Parametric Influence in Ultrasonic Vibration Assisted Turning of Ti6Al4V Alloy,Journal of Testing and Evaluation, 2020 (SCI)

Funded Research Projects

S. No	Project title	Sanctioned Amount	Sanctioned Agency
1	**Berra Satish Ben**, Development of self-healing materials based on Thermally reversible polymer for biomimetic structural applications	24.11 Lakhs	SERB, DST
2	**Anant Kumar Rai**, Enhancing Performance Characteristics of a Centrifugal pump in Erosive Conditions	26.06 Lakhs	SERB, DST
3	**Shivraman and Adepu Kumar**, Mechanical and tribological characterization of Al-Si Product developed by wire arc additive manufacturing	23.74 Lakhs	ARDB
4	V V Mani, **V Vasu**, Indigenous test bed for Industry 4.0 using Visible Light Communication with Industrial Internet of Things	30.84 Lakhs	ASEAN-DST
5	**V Vasu**, D Kashinath, Synergistic Effect of Phosphonium, Ammonium Based Ionic Liquid and Nano Lubricants on the Tribological and Rheological Properties	16.6 Lakhs	SERB, DST
6	**Chandramohan V.P., Karthik Balasubramanian**, Development of Active Cooling for Avionics	14.39 Lakhs	DRDO
7	**Adepu Kumar**, Kishore Kumar babu, Mahesh Kumar, Investigation of interfacial interaction and grain structure development in friction stir welds for dissimilar joining of high strength aluminum to titanium alloys	10.04 Lakhs	DST
8	**B Satish Ben**, Development of FRP Composites with Crack Arrest and Self-Healing to Maintain Structural Integrity	30.06 Lakhs	DST-SERB
9	**G.Naga Srinivasulu (PI), S.Srinivasa Rao and V.Vasu**,	43.24 Lakhs	SPARC

	Experimental Investigations on different Geometrical shapes of Passive Direct Methanol Fuel cell stacks for Low Power Applications		
10	**G.Naga Srinivasulu (PI), S.Srinivasa Rao, Amba Prasad Rao and V.R.K.Raju**, Simulation and experimental evaluation of dual-fuel Homogeneous Charge Compression Ignition Engine by using reactivity fuels	36.78 Lakhs	SPARC
11	**G.Naga Srinivasulu (PI)**, P.V.Suresh and **S.Srinivasa Rao**, Design and Development of Passive Direct Methanol Fuel cell integrated with liquid electrolyte for Portable Power Applications	19.45 Lakhs	SERB-EMR
12	**Gudipadu Venkatesh**, Manufacturing of Advanced materials using microwave hybrid heating technique		MHRD-NITW
13	**P. Vamsi Krishna (CO-PI)**, National Centre for Development of Advanced Materials and Manufacturing Processes for Clean Coal Technologies for Power Applications	90.81 Lakhs	DST-ARCI
14	**P. Vamsi Krishna (PI)**, Vibration Assisted Turning for Improving Fatigue Life of Ti6Al4V Aerospace Components	28.6 Lakhs	DST-AMT
15	**R Narasimha Rao, Syed Ismail**, Insight Development on Tribological Response of Hybrid Aluminum Based Nanocomposites for Transportation sector	40.52 Lakhs	SPARC
16	**Srikanth K.**, Uday Bhasker M., Modelling and Simulation of Energy Harvesting using Piezoelectic Materials and Super Capacitors	6.75 Lakhs	RCI - DRDO
17	**Suresh Periyannan**, Ultrasonic Sensors Design and Development for Industrial Application	5.0 Lakhs	MHRD-NITW
18	**Syed Ismail**, Development of Multi-Scale Textured Piston Ring and Study of its Impact on the Fuel Economy of an Internal Combustion Engine	32.04 Lakhs	SERB

19	**V.K Manupati**, Developing of Telefacturing based distributed manufacturing support system for optimal manufacturing service for Indian small and medium scale enterprises	5.0 Lakhs	MHRD-NITW
20	**V.K Manupati**, Developing of Telefacturing based distributed manufacturing support system for optimal manufacturing service for Indian small and medium scale enterprises	13.59 Lakhs	
21	**V.K Manupati**, Artificial Intelligence, Machine Learning and Deep Learning applications in Production and Manufacturing systems	9.0 Lakhs	DST-ICPS
22	**K.Madhu Murthy, Dr. D. Jaya Krishna, Dr. A. Veeresh Babu, and Prof. G Ambaprasad Rao,** "Internal flow field analysis of Solid Rocket Motor with thrust termination ports"	9,93,850	ASL, DRDO

Consultancy work details

Dr. A. Veeresh Babu, Prof.K. Madhu Murthy, Scientific study for assessment of DPM at SRP-OCP and JVR-OCP mines of the SCCL for an amount of Rs. 555344/-(On going)

Patents (Filed, Published, Granted and Licensed)

a. Filed

K. Balasubramaniam, **Suresh Periyannan**, Integrated Thermocouple Waveguide Sensor System and Method To Measure Physical Properties Of Waveguide Material And Surroundings, PCT Patent

Manmadhachary A, Aditya Mohan A, Giridhar Kumar V and **Ravi Kumar Y**, Implantable Device for Temporomandibular Joint and Method of Production Thereof, US Patent

P S Ranjit, **A. Veeresh Babu**, Steering Design- Part III: Evaluation of Angle between Horizontal Center line of the Pivot centers to drop arms of left side wheel of Ackerman Steering Mechanism based Steering on Automobile by considering the Acute angle

Adepu Kumar and P Naresh, Multi-Groove Technique to Formulate Bulk Hybrid Surface Metal Matrix Composites by Friction Stir Processing

b. Published

Chandramohan V.P., Ramakrishna Balijepalli, Pritam Das, **K. Kirankumar**, Design and development of solar updraft tower (SUT) plant for generating electrical power: A novel structure, appropriate materials with optimized collector angle, Indian Patent

Srikanth Korla, Suryawanshi Nikhil Ramakrishna, Pen Stand Puzzle, Indian Patent

Srikanth Korla, Akash Paidalwar, Shubham Awashi, Saumay Agarwal, Dual Security Pad-Lock, India Patent

c. Granted

K. Balasubramaniam, **Suresh Periyannan**, A novel ultrasonic waveguide technique for distributed sensing and measurements of physical and chemical properties of surrounding media, US Patent

K. Balasubramaniam, **Suresh Periyannan**, A Novel Waveguide Technique for the Simultaneous Measurement of Temperatures Dependent Properties of Materials, US Patent

Books and Book Chapters

Naga Ramesh Korasikha, Thopudurthi Karthikeya Sharma, **Gaddale Amba Prasad Rao** and **Kotha Madhu Murthy**, Recent Advancements in Thermal Performance Enhancement in Microchannel Heatsinks for Electronic Cooling Application in the Book-Heat Transfer - Design, Experimentation and Applications [Working Title] edited by Dr. Miguel Araiz:Licensee IntechOpen

Abhinay V., Krishna P S.V.S.S.R., Karthikeya Sharma T., **Amba Prasad Rao G.**, Experimental Analysis of Performance and Emissions of a Diesel Engine Fueled with Diesel–Water Emulsions In: Gupta A., Mongia H., Chandna P., Sachdeva G. (eds) Advances in IC Engines and Combustion Technology. NCICEC 2019. Lecture Notes in Mechanical Engineering. Springer, Singapore. https://doi.org/10.1007/978-981-15-5996-9_39

Conferences, workshops, FDPs, Webinars organized

Dr. M Vjaya Kumar (MED), NIT Warangal in collaboration with MNIT Jaipur and NIT Uttarakhand have organized its 1st International Conference on Evolution in Manufacturing (ICEM-2020) on December 10-12, 2020.

Prof. Narasimha Rao R, and **Dr. Syed Ismail**, A FIVE DAY NATIONAL SPARC WORKSHOP ON Tribological and Corrosion Behaviour of Advanced Metal Matrix Nano-Composites for Engineering/Biomedical Sector, 18th to 22nd October, 2021 (Invited Speaker: Dr. Manoj Gupta, Assoc. Professor, National University of Singapore)

Dr. S Srinivasa Rao and Dr. G Naga Srinavasulu have organized a FIVE Day SPARC Workshop on "Fuel Cell Technology and its Research Opportunities" during 04/01/2021 - 08/01/2021 (Invited Speaker: Prof. AJAY K. PRASAD, University of Delaware, USA).

Dr. V Vasu has organized a A Ten Day Online Student Training Programme on Future Skill Technologies "Robotics & Automation" in two batches during 05-10-2020 to 14-10-2020 (First Batch) and 26-10-2020 to 05-11-2020 (Second Batch) Under TEQIP -III

Y. Ravi Kumar, L. Krishnanand, M. Manjaiah, A One-week FDP on "Teaching and Learning of Additive Manufacturing Technology: Emphasis on Metal 3D Printing", July 13-18, 2020

V Vasu and Shivraman T have conducted a Five Day ATAL - AICTE Online FDP on Mechatronics & MEMS during July 05-09, 2021.

Dr. M Manjaiah, Dr. Gangadharudu Talla and Prof. A Kumar, Online FDP on "Teaching and Learning of Advances in Manufacturing Technologies" during 30th Nov. - 04 Dec., 2021.

Guest Talks/webinars delivered

Prof. G. Amba Prasad Rao, IC Engines, Performance & Emissions, JNTU Anantapur on 20/01/2021

Dr. P.Vamsi Krishna, Sustainable manufacturing, Pragati Engineering College, Surampalem, AP on 11/06/2020.

Dr. P.Vamsi Krishna, Hybrid nano cutting fluids in machining, Gudlavalleru Engineering college, Gudlavalleru, A.P, on .20-06-2020

Dr. P.Vamsi Krishna, Response Surface Methodology, CBIT, Hyderabad, Telangana on 25-11-2020

Dr. P.Vamsi Krishna, Grey Relational Analysis, CBIT, Hydearabad, Telangana on23-12-2020

Awards/ Recognitions/ Achievements

Dr. V Vasu, Recipient of the Outstanding Engineering Services to Society Award by The Institute of Engineers (India), Rajasthan State Centre Jaipur on 1/08/20212021

PhD Research guidance (Completed during the academic year)

P Venkateswara Babu, completed his Phd with title "Tribological Performance of Positive Surface Textured Sliding Contact under Mixed Lubrication– An Experimental and Numerical Approach" under the guidance of Dr. Syed Ismail and Dr. B Satish Ben

T Manoj Kumar Dundi, completed his Phd with title "Numerical Investigations for Enhanced Liquid Mixing Characteristics in Passive T-type Micromixers" under the guidance of Dr. V.R.K.Raju and Dr. V.P. Chandramohan

Pratap Naidu, completed his Phd with title "Mechanical and tribological behaviour of graphitic carbon nitride(g-C3N4) filled glass fiber epoxy hybrid Composites" under the guidance of Dr G. Raghavendra

Manoj Panchal, completed his Phd with title "Tribological and mechanical studies of bio-based novel nano composites and their application for wastewater treatment" under the guidance of Dr G. Raghavendra

Minugu Om Prakash, completed his Phdwith title "Fabrication and Characterization of Porous Nano Carbon from Activated Biowaste for Structural and Tribological Applications" under the guidance of Dr G. Raghavendra

G. Arun Kumar, completed his Phd with title "Design, Development and fabrication of high redundency linear electromechanical actuators for fault tolerance" under the guidance of Dr. V V asu and Dr. Srikanth Korla

Ch. Sri Chaitanya, completed his Phd with title "Mechanical and Tribological Performance of Cenosphere based Syntactic Foams" under the guidance of R.N.Rao

Viswanadham L, completed his PhD with title "Experimental Investigation on the Dynamic Behaviour of Electronic Mounting Structures in Aerospace Vehicles" under the guidance of R.N.Rao, IM Chabra

U Vinay Kumar, completed his PhD with title "Isogeometric Analysis and Shape Optimization of Structural Elements and Acoustic Horn" under the guidance of Dr Hari Kumar Voruganti

VVMJ Satish, completed his Phd with title "Optimization Based Inverse Kinematics and Redundancy Resolution of Hyper Redundant Robots in Cluttered Workspaces" under the guidance of Dr Hari Kumar Voruganti

P Venkateswara Babu, completed his Phd with title "Tribological Performance of Positive Surface Textured Sliding Contact under Mixed Lubrication– An Experimental and Numerical Approach" under the guidance of Dr. Syed Ismail and Dr. B Satish Ben

Madhukar .P, completed his Phd with title "Fabrication and Experimental Investigations on Nano-Particulates Reinforced Al7150 Metal Matrix Composites" under the guidance of Prof. CSP. Rao

E.Anusha, completed his Phd with title "Investigation On The Influence Of Different Thermal Processing Conditions In Laser Surface Hardening Of Bearing Steel And Bearing Elements" under the guidance of Dr.Adepu Kumar & Dr.S.M.Shariff, Sc-F, ARCI, HYD

G. Venkatesh, completed his Ph.D with title "Design and optimization of conformal cooling channels for injection moulding using additive manufacturing" under the guidance of Dr. Y. Ravi Kumar

Mr. C. Naresh, completed his Phd with title"Machining of Nitinol alloys" under the guidance of Dr.PSC Bose

Srinivasa Reddy Badduri, completed hisPhd with title "Experimental And Numerical

Analysis Of Pem Fuel Cell Performance Using Bio-Inspired Flow Fields" under the guidance of Dr. G Naga Srinivasulu and Prof. S Srinivasa Rao

Balijepalli Ramakrishna, completed his Ph. D with title "Design, Development and Performance Parameters Evaluation of Small Scale Solar Updraft Tower (SUT) Plant" under the guidance of V P Chandra Mohan

G. Uma Maheswararao, completed his Ph. D with title "Selection of a potential organic PCM for low temperature heat storage applications" under the guidance of Dr. D. Jaya Krishna

Lokesh Kalapala, completed his Phd with title"Experimental and numerical investigations of design parameters for a shell and tube latent heat storage unit" under the guidance of Dr. D. Jaya Krishna

Y. Siva Kumar Reddy, completed his Ph. D with title "Analytical study on identification of energy efficient liquid desiccant at optimum operating parameters for liquid desiccant air conditioning system" under the guidance of Dr. Karthick Balasubramaniam, Dr. Chandramohan V.P.

Valaparla Ranjith Kumar, completed his Ph. D with title "Numerical Study of Heat Transfer and Fluid flow Characteristics in Sinusoidal and Circular Wavy Microchannels" under the guidance of Dr. Karthik Balasubramanian

S. Venkata Sai Sudheer, completed his Phd with title"Investigation of Thermal Performance of Two Phase Natural Circulation Loop Filled with Nanofluid" under the guidance of Dr. K. Kiran Kumar and Dr. Karthik Balasubramanian

M.Vinod Babu, completed his Ph.D with title "Studies On A 4-Cylinder CRDI Engine with Split Injection Strategy using oxygenated Fuel Blends" under the guidance of K.Madhu Murthy and G.Amba Prasad Rao

S.Nagendra Babu, completed his Phd with title"Studies on design and development of high temperature cellular ceramic heater" under the guidance of G.Amba Prasad Rao

International visits of the faculty members

NA

Distinguished guests visited the department

Dr. Surendra Kumar, Chairman, Armament Design Mechanism & Ballistic (ADMB) Panel, DRDO (Ex- Director ARDB Pune) visited the Department of Mechanical Engineering, NITW, on October 07th, 2021

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Best student papers and other achievements

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Details of students joined in higher educational institutes

S. NO	Students Name	oll No.	Course completed at NITW (BTech/M Tech/PG/ MBA/PhD)	Placement details	Higher Education details
1	Vemuri Pavan Sai	3166	BTech	--	MS, University of Illinois Urbana-Champaign, USA
2	Abdus Samad Hashmy	3101	BTech	--	MS, RWTH Aachen University, Germany
3	Nitin Bhatia	3235	BTech	--	MS, Northwestern University, USA
4	Jahnav Rokalaboina	3149	BTech	--	MS, Arizona State University, USA
5	Sahil Ramagiri	3146	BTech	BNY Melon	--
6	Dipansh SIngh	3215	BTech	Bajaj Auto	--
7	Yash Sahu	3250	BTech	Bajaj Auto	--
8	Radhika Bhandari	3144	BTech	ExxonMobil	--
9	Ganesh S	3117	BTech	ExxonMobil	--
10	Ruthik L	3226	BTech	Bajaj Auto	--
11	Abhishek Anand	3202	BTech	Bajaj Auto	--
12	Siddhant Rajurkar	3156	Btech	ExxonMobil	--
13	M V N S Satya Manikanta Sai	3227	BTech	ITC	--
14	Sachin Goyal	3249	BTech	CITI Bank	--
15	Rohan Nema	3148	BTech	ZS	--
16	Mannem Teja	3130	BTech	ZS	--
17	Shah Amit Kumar	3253	BTech	Standard Chartered Bank	--
18	Harish Reddy Thalla	3261	BTech	Standard Chartered Bank	--
19	Adarsh Panchbhai	3237	BTech	Indus Insights	--

20	Aniket Viswanath	3167	BTech	Bosch	--
21	Viraj Deshmukh	3114	BTech	L&T Infotech	--
22	Yash Kakade	3270	BTech	L&T Infotech	--
23	Sirigada Tarun	3257	BTech	CollegeDunia	--
24	Bollu Sumanth	3111	BTech	CollegeDunia	--
25	Sesha Gagan Tipparaju	3262	BTech	Fractal Analytics	--
26	Sushanth Todupunuri	3162	BTech	BEL	--
27	Yash Maheshwari	3169	BTech	Bosch limited	--
28	Pokala Akhila	3140	BTech	ExxonMobil	--
29	Abdus Samad Hashmy	3101	BTech	ExxonMobil	--
30	Jai Bastapure	3109	BTech	Axis Bank	--
31	Veludurti Prasannakumar	3266	BTech	Axis Bank	--
32	Sudharshan Ramesh	3159	BTech	Axis Bank	--
33	Himanshu Sahu	3220	BTech	Axis Bank	--
34	AKASH SRIVASTAVA	3205	BTech	Axis Bank	--
35	Suneel Chintam	3113	BTech	Deloittee	--
36	Adhav Mathialagan	3106	BTech	Deloittee	--
37	Harsha Vardhan Kota	3219	BTech	Deloittee	--
38	Avinash Reddy	3210	BTech	Deloittee	--
39	Sayan Bose	3153	BTech	TATA PROJECTS	--
40	Katkuri Srikanth	3123	BTech	Impact Analytics	--
41	Manish Gupta	3229	BTech	Impact Analytics	--

42	Krovi Sri Phani Kishore	3225	BTech	Merilytics	--
43	Yashvardhan Singh	3170	BTech	Novartis Healthcare	--
44	Yenduri Viswanath	3271	BTech	O9 Solutions	--
45	Abhinav Munghate	3102	BTech	O9 Solutions	--
46	Vinay Kumar ReddyKotla	3125	BTech	O9 Solutions	--
47	Abhishek Rudra	3203	BTech	O9 Solutions	--
48	Naman Patil	3234	BTech	HCL	--
49	Manu Mohan	3131	BTech	HLS Asia	--
50	Ravikant Tiwari	3147	BTech	HLS Asia	--
51	Sumit Daud	3213	BTech	Zenoti	--
52	Rakesh Kumar Alasakani	3206	BTech	Thermax	--
53	Raja Anirudh Gandhi Ravipalli	3247	BTech	Thermax	--
54	Rohan Rajpal	3248	BTech	Thermax	--
55	Haneesh Bathini	3209	BTech	ADP	--
56	Shounak Nandan Kossambe	3254	Btech	Capgemini	--
57	Adapa Sunil	3104	BTech	LnT	--
58	Rajeshwari Prasada	3245	BTech	Evosys	--
59	sudeep vaidya	3258	BTech	Byju's	--
60	Dhruv Kumar Acharya	3214	BTech	Byju's	--
61	Pradnyavant Manokumar Gaikwad	3216	BTech	Byju's	--
62	Sri Krishna Mathreya	3160	BTech	Addverb Technologies	--

63	Harshit Adepu	3105	BTech	Addverb Technologies	--
64	Nitish Kumar	3136	BTech	Innominds	--
65	Parth Singh	3139	BTech	Vedanta	--
66	Ashutosh Singh	3108	BTech	Vedanta	--
67	Shangar Shudharsanam	3154	BTech	Vedanta	--
68	Ashwin John	3208	BTech	Noveltech	--
69	Dileep Varma Virodhula	3115	BTech	Public Sapient	--
70	Bansod Amartya	3207	BTech	Standav	--
71	Aldrin Saju	3107	BTech	Tata Hitachi	--
72	Phanindra Korlepara	3224	BTech	Affluence Infosystems	--
73	Vivekvardhan Bommana	3211	BTech	Oracle	--
74	Pankaj Sankhala	3138	BTech	K-12 Techno Services Pvt. Ltd.	--
75	Nikhil Chouhan	3135	BTech	314e	--
76	Pasham Bhanumahesh	3239	BTech	Cognizant	--
77	Vangala Pranay Deep Reddy	3264	BTech	Axis My India	--
78	Prateek Agarwal	3241	BTech	tredence analytics	--
79	Justin Varghese	3221	BTech	tredence analytics	--
80	Rahul Agarwal	3244	BTech	tredence analytics	--
81	Abhijeeth	3201	BTech	Cloud4c	--
82	Jinna Jayadeep Reddy	3121	BTech	Prokarma	--
83	Sai Aneerudh Ramesh	3151	BTech	PrimEra	--
84	Raunak Bhade	3246	BTech	JK Tyres	--

85	Usama Hamid Dhopavkar	3263	BTech	JK Tyres	--
86	PRAVEEN TOMAR	3143	BTech	JK Tyres	--
87	Komroju Abhishek	3124	BTech	JK Tyres	--
88	Bhukya Sharath Chandra Rathod	3110	BTech	Byju's	--
89	Sahil Patil	3150	BTech	Byju's	--
90	Srinath Reddy Kondam	3158	BTech	HD Works	--
91	Siddharth Singh	3256	BTech	Tata Chemical	--
92	Nikith kavi Raj	3243	BTech	BYJU's	--
93	Vijay Varshit S	3259	BTech	KEC	--
94	N Bhatia	3235	BTech	ZS	--
95	Abhishek Kumar Sinha	3103	BTech	Ganit	--
96	GEDDAM PAVAN KUMAR	3118	BTech	Saint Gobain	--
97	Priyam Dutta	3712	MTech	Wabtec	--
98	Bhosle Kshitij	3702	MTech	HLS Asia	--
99	Kahar Ankit Kishorbhai	3707	MTech	HLS Asia	--
100	Shubham Shukla	3619	MTech	Thermax	--
101	Nitish Maan	3513	MTech	Evosys	--
102	SAHIL ARORA	3761	MTech	Byju's	--
103	Chetan Vijay Mali	3609	MTech	Byju's	--
104	Kadimi Hemanth Kumar	3803	MTech	Byju's	--
105	Rahul Bhatter	3713	MTech	Volvo	--
106	Vivekanand Shanbhag	3810	MTech	TCS Innovator profile	--
107	Saurabh	3716	MTech	VECV	--
108	Anand Singh Rawat	3651	MTech	Siemens Gamesa	--

109	Lopinti Aneel kumar	3661	MTech	Siemens Gamesa	--
110	Deepanshu Yadav	3555	MTech	LnT	--
111	Orsu Raja Shekar	3710	MTech	LnT	--
112	Sachin Sagar	3760	MTech	LnT	--
113	Utkarsh Raj	3764	MTech	K-12 Techno Services Pvt. Ltd.	--
114	MUDIT GUPTA	3611	MTech	K-12 Techno Services Pvt. Ltd.	--
115	Nitin Gupta	3563	MTech	BRIDGEi2i Analytics	--
116	Nikhil Chirangi	3656	MTech	Rexnord	--
117	BHARATH SAI YELUGURI	3625	MTech	Mechartes	--
118	Vivek Praveen	3623	MTech	Tetrahedron	--
119	Roshan Jamthe	3606	MTech	Tetrahedron	--
120	Shivam Parashar	3568	MTech	Tetrahedron	--
121	Nayan Kumar	3614	MTech	Tetrahedron	--
122	Polu Sai Teja Reddy	3565	MTech	Tetrahedron	--
123	Karan Khatri	3757	MTech	Tetrahedron	--
124	Rishabh Tripathi	3669	MTech	Rexnord	--
125	VELMAREDDY PRUDHWIDHAR REDDY	3720	MTech	JK Tyres	--
126	Arjun Ajith B	3701	MTech	JK Tyres	--
127	Satish Banoth	3653	MTech	Yash fans	--
128	Krishna Kumar	3657	MTech	Yash fans	--

Department Association/Students Clubs Activities

- The Mechanical Engineering Association has conducted various workshops on mechanical engineering software and recent technologies like Ansys, SolidWorks Industrial Robots etc.
- A team of Electrical and mechanical Engineering Students participated in the All India BAHA Electrical Vehicle Competition held at Indore from December 23 to 27, 2020 and won a special prize in the Innovative Design category. The Team includes Mr. Riayaz, Ms. Sridevi etc.
- 16 Cylinder Jenbacher Gas Engine donated by GE India Industrial Bangalore:

  GE India industrial Pvt Ltd., Bangalore has donated the 16 cylinder Jenbacher Gas engine with ID 1202215, along with Generator and its accessories worth € 50,000 (Euros) for education and training purposes. The engine was received on 15th November 2021 and was installed in the Thermal Engineering Laboratory.

  The Director NIT Warangal, the Head and the faculty of the department of Mechanical Engineering thankfully acknowledge the commitment and support of GE in helping NIT Warangal in promoting technical education and research.



Summary

S.No.	Activity	Number
1	**Publications (Peer Reviewed Journals/ conferences)(SCOPUS/SCI)**	162
	International Journals	162
	National Journals	-
	International Conferences	-
	National Conferences	-
2	**Funded Research Projects/SPARC projects (2019-20)**	530.95 Lakhs
	Completed Projects	
	DBT, SERB	
	Ongoing Projects	395.21 Lakhs
	IMPRINT PROJECTS	
	FIST PROJECT	
	BRICS project	
	DST, SERB, BRNS, DRDO	
3	**SPARC Project Workshops**	
4	**Consultancy Works (2019-20)**	
5	**Patents**	
	Awarded	
	Filed	
6	**Books and Book Chapters**	

	Books	2
	Book Chapters	
7	**Conferences/ Workshops/GIAN courses/FDPs Conducted**	
8	**Guest talks/ Webinars delivered**	
9	**New Labs Established (Equipment/Software Procured)**	
10	**Awards/Recognitions/Achievements**	
11	**Research Guidance (Completed in 2019-20)**	
12	**International Visits of the Faculty Members/ students**	
13	**Students Achievements**	
	Placements	
	B.Tech	
	MTech	
	Higher Education (M.Tech, PhD at IITs & Abroad)	4
	Lab Development Activities	
	Conference visits	
14	**Mechanical Engineering Association Activities**	***27***
15	**Distinguished Guests visiting the Department/Delivering Expert Lecture/Keynote Address**	***1***
16	**Outreach Programmes**	***16***

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Brief History of the Department, Academic Programs

Electronics and Communication Engineering was integral part of Electrical Engineering department with masters program in Electronics & Instrumentation [1967] and under graduate program in ECE [1971]. The ECE Department got separated subsequently in 1990.

The department witnessed sea change in terms of academics and research progress since its inception through addition of 2 more PG programs in due course and extensive full time and part-time research programs viz., VLSI System design and Advanced Communication systems.

The ECE department gradually acquired expertize in multiple dimensions through strong 36 full time faculty members catering to the academic needs of nearly 700 students. The department bagged several R&D projects to the tune of Rs 3.36 crores in the niche areas including smart antennas, Millimeter-wave front-ends , IC Design, 5G communication, signal processing and machine learning sponsored by MHRD, DST, Ministry of Defense, Meity etc.

Our UG and PG students are placed in several core companies including Intel, Qualcom, Texas Instruments, Cadence, Sandisk, Xilinx, Synopsys etc., along with software companies like Oracle, Goldman Sachs, Microsoft, Mathworks etc. The department enjoys strong research collaborations with Defense laboratories, AMD, ECIL, Intel, Austria micro Systems. With a blend of experienced and young faculty the department is inching ahead towards new heights.



Faculty Details:

S.No.	Name of the Faculty Member and Designation	Highest Qualification	Research Interests	Photograph
1.	Prof. L Anjaneyulu, Professor & Head	Ph.D.	Computer Networks, Antennas, Microwave Engineering, Signal Processing, Radar Signal processing, Antennas Underwater communications	
2.	Prof. N.V.S.N. Sarma, Professor (HAG)	Ph.D.	Numerical Electromagnetics ANNs and Wireless Sensor Networks Antennas	
3.	Prof. T. Kishore Kumar, Professor	Ph.D.	Speech Signal Processing and Adaptive Signal Processing, Radar Signal Processing, Real Time Signal Processing using Embedded Systems, Real Time Embedded System, Machine Learning	
4.	Prof. N. Bheema Rao, Professor	Ph.D.	On-Chip Inductors for RF Applications and Device Modelling	
5.	Prof. C. B. Rama Rao, Professor	Ph.D.	Digital Signal Processing, Adaptive Signal Processing, DSP Architectures and Algorithms.	
6.	Sri. M. V. Raghunath, Associate Professor	M. Tech.	5G Communications, Image Processing, Pattern Recognition	
7.	Sri. Ravi Kishore Kodali, Associate Professor	M. Tech.	Wireless Sensor & Computer Networks Digital System Design Wireless Communications	
8.	Sri. S. K. L. V. Sai Prakash, Associate Professor	M. Tech.	Wireless Communications, Cellular Networks, Computer Networks and Internet of Things	

9.	Sri. P. Harikrishna Prasad, Associate Professor	M. Tech.	Pulse shaping in OFDM, Wireless Communications	
10.	Dr. B. Lakshmi, Associate Professor	Ph.D.	IoT VLSI Architectures Embedded System Design FPGA Design Low Power VLSI design	
11.	Sri. K. V. Sridhar, Associate Professor	M. Tech.	Bio-medical signal/Image Processing Adaptive Signal Processing	
12.	Dr. T. V. K. Hanumath Rao, Associate Professor	Ph.D.	Biomedical signal processing and VLSI	
13.	Dr. P. Sreehari Rao, Associate Professor	Ph.D.	Analog and Mixed signal IC Design, Power management IC Design, Communication Systems,EDA optimization , Energy Harvesting circuits for IoT	
14.	Dr. Amara Prakasa Rao, Associate Professor	Ph.D.	Smart Antenna Systems, Optimization Techniques, EDC, & Signals and Systems	
15.	Dr. P. Muralidhar, Associate Professor	Ph.D.	VlSI Architectures,Embedded Systems Design, System on Chip (SoC) Design	
16.	Dr. D. Vakula, Associate Professor	Ph.D.	Multifunction Antennas, Ultrawideband antennas, Metamaterials, Fault Diagnosis of Antenna Arrays, Waveguide slot radiators, Conformal Antennas, Artificial neural networks, Terahertz systems	
17.	Dr. V Venkata Mani, Associate Professor	Ph.D.	Signal Processing for wireless communication MIMO OFDM UWB & Green Communication	

18.	Dr. J. Ravi Kumar, Associate Professor	Ph.D.	Signal Processing, Control System Design, Machine Learning	
19.	Dr. S. Anuradha, Associate Professor	Ph.D.	Wireless Communications, Coding Techniques, Fading Channels, Cognitive Radios, Signal Processing for Communications, Antennas for Cognitive Radios	
20.	Dr. P. Prithvi, Associate Professor	Ph.D.	Digital System Designs, Embedded Systems Designs, Speech Processing	
21.	Dr. V. Rama, Associate Professor	Ph.D.	Basic Electronics Engg., Digital Electronics, Analog Electronics, Biomedical Instrumentation , Biomedical Signal Processing , Quality Reliability of Electronic Systems , Neural Networks & IC Applications,	
22.	Sri. K. Sarangam, Associate Professor	M. Tech.	VLSI Circuit Design low power design novel device	
23.	Dr. Kalpana Naidu, Assistant Professor	Ph.D.	Wireless Communication, 5G communication, Heterogeneous Communication, Resource allocation	
24.	Dr. Gande Arun Kumar, Assistant Professor	Ph.D.	Microwave and Millimeter wave passive and active circuits, Communication and Radar front end design, Metamaterials, Substrate Integrated Waveguides circuits and antennas, and Reconfigurable filters and antennas	
25.	Dr. Atul Kumar Nishad, Assistant Professor	Ph.D.	VLSI Interconnects, Microelectronics and VLSI, 2D Materials, VLSI Circuits and Systems	

26.	Dr. V. Narendar, Assistant Professor	Ph.D.	Beyond CMOS, Nanoscale device design and modeling, Modeling and simulation of semiconductor devices, Carbon Nanotubes and 2D material based devices, VLSI Circuits & Systems	
27.	Dr. Himanshu Shekha Pradhan, Assistant Professor	Ph.D.	Optic Sensors; Optical Signal Processing; Nonlinear Fiber Optics; Optical Communication; Structural Health Monitoring using Fiber Optic Sensors; Free Space Optical Communication; Channel modelling in FSO system.	
28.	Dr. Gopi Ram, Assistant Professor	Ph.D.	Analysis and Synthesis of Radiation Pattern of Time-Modulated Antenna Array Structures; Evolutionary Optimization Techniques; Application of Soft Computing in Electromagnetics; RF and Microwave.	
29.	Dr. B. K. N. Srinivasarao, Assistant Professor	Ph.D.	VLSI architectures for image and video processing, Embedded systems design, System on chip (SoC), Network on chip (NoC).	
30.	Dr. Mohhamad Farukh Hashmi, Assistant Professor	Ph.D.,	Digital Image Processing, Computer Vision, Machine Vision, Video Processing, Video Codec Design, Embedded Systems, Internet of Things(IOT), Digital Signal Processing(DSP), Machine Learning, Deep Learning for Health Care and Computer Vision, Digital Design, Embedded Image Processing, Biomedical Image Processing, Real Time Operating Systems.	
31.	Dr. M. Satish, Assistant Professor	Ph.D.	Novel devices design using calibrated TCAD; Compact modeling of novel devices; Characterization and fabrication of MOS devices/circuits; Design of low power analog and digital circuits;	

			Design of embedded/IoT applications or systems	
32.	Dr. K. Prakash, Assistant Professor	Ph.D.	Flexible Electronics, Embeded systems, Energy Harvesting, Low Power Processing	
33.	Dr. Vasundhara, Assistant Professor	Ph.D.	Adaptive Signal Processing System Identification and Parameter Estimation	
34.	Dr. Amarjit Kumar, Assistant Professor	Ph.D.	Reconfigurable Multiband and Multifunctional Radio-Frequency Integrated Circuits	
35.	Dr. Ekta Goel, Assistant Professor	Ph.D.	Modeling and Simulation of Advanced MOS Devices	
36.	Dr. Chayan Bhar, Assistant Professor	Ph.D.	Optical and wireless-optical integrated networks	

Journal Publications

Ravikanti, S. and **Anjaneyulu, Lokam**. "Compact circularly polarized patch antenna for WiMAX applications with improved impedance bandwidth and axial ratio," Engineering, Technology & Applied Science Research, 2020, ESCI

Ravikanti, S. and **Anjaneyulu, Lokam**. "A novel and compact circularly polarized antenna for 5G wireless local area network application," Electrical, Control and Communication Engineering, 2020, ESCI

Ravikanti, S. and **Anjaneyulu, Lokam**. "Novel Design and Characterization of Wide Band Hook Shaped Aperture Coupled Circularly Polarized Antenna for 5G Application," Progress In Electromagnetics Research C, 2021, SCOPUS

Kiran Dasari, **Anjaneyulu Lokam**, Jayaraju Nadimkeri, "Application of C-band sentinel-1A SAR data as proxies for detecting oil spills of Chennai, East Coast of India," Marine Pollution Bulletin, 2021, SCIE

Surekha Reddy Bandela and **T. Kishore Kumar**, "Unsupervised Feature Selection and NMF Denoising for Robust Speech Emotion Recognition", Applied Acoustics Journal. September 2020 (SCI) (Accepted)

S. Siva Priyanka and **T. Kishore Kumar**, "Generalized Sidelobe Canceller Beamforming with Combined Postfilter and Sparse NMF for Speech Enhancement", Fluctuations and Noise Letter, July 2020 (SCI) (Accepted)

Surekha Reddy Bandela and **T. Kishore Kumar**, "Speech Emotion Recognition using Unsupervised Feature Selection Algorithms", Radioengineering Journal, DoI: 10.13164/re.2020.0353, Vol. 29, No. 2, PP. 353-364, June 2020. (SCI).

M.V. Raghunadh, Dr. N. Bheema Rao, "Design of Three Super Compact 5G Band Pass Filters with Integrated Passive Device Technology for 802.11a Wireless LAN "GRENZE International Journal of Engineering and Technology (GIJET), Volume 7 Issue 1, Jan 2021, Netherlands, Scopus Indexed NOV 2021. Grenze ID: 01.GIJET.7.1.15 © Grenze Scientific Society, 2021" Jan 2021 SCI 1.97

K L V Sai Prakash, Sakuru and N Bheema Rao, "A Novel Loop Based Fine Grained Network-wide Time Synchronization over Constrained Delay Paths in Wireless Sensor Networks," Turkish Journal of Computer and Mathematics Education (TURCOMAT), Vol.12, Issue 4, Pages 1055-1062, DOI: 10.17762/turcomat.v12i4.601 2021, SCOPUS

S. Subba Rao and **N. Bheema Rao**, "Analog/RF performance of Graded Channel Gate Stack Triple Material Double Gate strained-Si MOSFET with fixed charges",**Silicon**, **Springer,** 2021.

S. Subba Rao and **N. Bheema Rao**, "Analog/RF performance of strained-Si Graded Channel Dual Material Double Gate MOSFET with interface charges", Journal of Computational Electronics, Vol. 20, Issue 1, pp. 492-502, 2021.

S. Subba Rao and **N. Bheema Rao**, "Analytical modeling of subthreshold current and swing of strained-Si graded channel dual material double gate MOSFET withinterface charges and analysis of circuitperformance", International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, Vol. 34, Issue 1, 2021.

Y V Koteswararao, **C B Rama Rao**, "Multichannel speech separation using hybrid GOMF and enthalpy-based deep neural networks," Multimedia Systems 27(10), April, 2021, DOI:10.1007/s00530-020-00740-y, SCI

R. K. Niranjan , **C B Rama Rao**, A. K. Singh, "FPGA based Identification of Frequency and Phase Modulated Signals by Time Domain Digital Techniques for ELINT Systems," DOI: https://doi.org/10.14429/dsj.71.15705, 2021, SCI

R. K. Niranjan , **C B Rama Rao**, A. K. Singh, "SWaP Optimised Parameter Extraction of Radar Signals for Space Electronic Intelligence Application," DOI: https://doi.org/10.14429/dsj.70.15619, 2020, SCI

R. K. Niranjan , **C B Rama Rao**, A. K. Singh, "High Accuracy Parameter Estimation for Advanced Radar Identification of Electronic Intelligence System ,"DOI:https://doi.org/ 10.14429/dsj.70.15105, 2020, SCI

Sudarsana Reddy Karnati, **Lakshmi Bopanna**, Dhanunjay R Jahagirdar, " Dynamically tuneable pre-modulation filter for an airborne PCM/FM telemetrysystem", 84(6):104053, IET Circuits, Devices and Systems Journal**,** March 2021.

Siva Ramakrishn Pillutla, **Lakshmi Boppana**, " Low-complexity bit-serial sequential polynomial basis finite field GF(2 m) Montgomery multipliers", 84(6):104053, Microprocessors and Microsystems (Elsevier), February 2021.

R. Srinivasan, Tessy Thomas, **B. Lakshmi**, "Power Spectral Density Computation and Dominant Frequencies Identification from the Vibration Sensor Output under Random Vibration Environment", Defence Science Journal, Vol. 70, No. 6,, pp. 692- 700, November 2020.

Siva Ramakrishna Pillutla, **Lakshmi Boppana**," High-Throughput Area-Delay-Efficient Systolic Multiplier over GF (2m) for a Class of Trinomials". Microprocessors and Microsystems. 2020 Jun 9:103173.

Siva Ramakrishn Pillutla, **Lakshmi Boppana**, "Low-latency area-efficient systolic bit-parallel GF (2) multiplier for a narrow class of trinomials," Microelectronics Journal, Volume 117, 105275, November 2021, SCI

J Ashish, **A Prakasa Rao**, "A Dual Band AMC Backed Antenna for WLAN, WiMAX, and 5G Wireless Applications," ACES Journal, Vol 36, No 9, September 2021, SCI

SRINIVAS, Guthi, and **D VAKULA**, "High Gain and Wide Band Antenna Based on FSS and RIS Configuration," Radioengineering 30.1, 2021, SCI

C Sairam, **D Vakula**, M Chakravarthy, "Wide band Tripple sleeve Dipole Antenna with loading for UHF Applications," IETE Journal of Research , 2021, SCI

Ganesh Miriyla, **VV Mani**,"A nonlinear modelled low-complex ADO-OFDM for Visible light communication systems", Optik, Volume 246 , November 2021, Elsevier(**SCI).**

Kishore Vejandla,**V.V.Mani**,"A novel timing synchronization method for OFDM based VLC systems", Optik, Volume 244, October 2021, 167206, Elsevier

Ganesh Miriyala, **V. V. Mani**, " A new PAPR reduction technique in DCO-OFDM for Visible light communication systems",Optics Communications, Pages60-64,Vol 474, Nov 2020, Elsevier

Kishore Vejandla, Siva Prasad Valluri, Sellathurai Mathini, Abhinav Kumar, Tharmalingam Ratnarajah,"Performance Analysis Under Double Sided Clipping andReal Time Implementation of DCO-GFDM in VLC Systems", IEEE Journal of Lightwave Technology, pg. 33-41, Vol.39,Issue1 1, Jan 2021

Vejandla Kishore, **VV Mani**, Wasiu O Popoola, Abhinav Kumar, "Implementation of Linearly Pulse Shaped Generalised Frequency Division Multiplexing for Visible Light Communication Systems", IEEE Open Journal of the Communications Society, **Page(s):** 1614 - 1622, Vol. 1, Oct 2020

Vejandla Kishore, Valluri Siva Prasad, **V. V. Mani**, "A Blind Timing Synchronization Algorithm for DCO-OFDM VLC Systems", IEEE Photonics Technology .Letters, DOI: 10.1109/LPT.2020.3013447

Pratap Soma, **Ravi Kumar Jatoth**, "An Efficient and Contrast Enhanced Video De-hazing based on transmission estimation using HSL color model" , **Springer, The Visual Computer**, pages 1-12, April, 2021 (Springer).

Alagesan Bhuvaneswari Ahadit, **Ravi Kumar Jatoth**, " A Novel Dual CNN Architecture with LogicMax for Facial ExpressionRecognition" Journal of Information Science &Engineering, Volme 37, Issue 1, 2021.

Jailsingh Bhookya, **Ravi Kumar Jatoth** "PID Controller Design for Decentralized Tito Process Using Modified Differential Evolution Algorithm". Mechatronic Systems and Control, volume 49, Issue 3, 2021. (Actapress),

Kishor Ingle, **Ravi Kumar Jatoth** "A New Training Scheme for Neural Network based Non-linear Channel Equalizers in Wireless Communication System using Cuckoo Search Algorithm" **Elsevier International journal of Electronics and Communication Engineering,** (Article In Press) online September 2020.

Prathap Soma, **Ravi Kumar Jatoth** " Implementation of a novel, fast and efficient image de-hazing algorithm on embedded hardware platforms" " Springer Journal , Circuits, Systems, and Signal Processing https://doi.org/10.1007/s00034-020-01517-4, published on 18-August 2020.

M Ranjeeth, **S.Anuradha**, "Optimized cooperative spectrum sensing network analysis in nonfading and fading environments," Int J Commun Syst. 2020; 33:e4262. https://doi.org/10.1002/dac.4262, Wiley, 2020, SCI

D Srikar, **S.Anuradha**, "A new two-element MIMO antenna for cognitive radio applications Circuit World, 2021. https://doi.org/10.1108/CW-06-2020-0101,Emerald, 2020, SCI

D Srikar, **S.Anuradha**, "D. A compact six port antenna for better spectrum utilization efficiency in cognitive radio applications ," Int J RF Microw Comput Aided Eng. 2020; 30:e22383, Wiley, 2020, SCI

Vijaya Durga Ch, **S.Anuradha** , "Anoptimal nonlinear companding transform withclipping scheme for universal filtered multicarrier systems," Int J CommunSyst. 2020; 33:e4587. https://doi.org/10.1002/dac.4587, wiley, 2020, SCI

Shriram Tej, **S.Anuradha**, "Non Linear Companding Transform to Mitigate PAPR in DCT Based SC-FDMA System," wireless personal communication, doi:10.1007/s11277-020-07057-z. (SCI, Springer), 2020, SCI

Shriram Tej, **S.Anuradha**,"Walsh Hadamard Transform based SC-FDMA System using WARP Hardware," ETRI, https://doi.org/10.4218/etrij.2019-0502,Wiley,2021, SCI

Shriram Tej, **S.Anuradha**,"On Companding Techniques to Mitigate PAPR in SCFDMA Systems," International Journal of Wireless and Mobile Computing, Vol 18, No.3, Inder science 2020, Scopus

Vijaya Durga Ch, **S.Anuradha**,"Hermitian symmetry free direct current optical-universal filtered multicarrier with companding techniques for intensity modulation/direct detection systems," Optical Engineering, 59(9), 096104 (2020). https://doi.org/10.1117/ 1.OE.59.9.096104, 2020, SCI

Prantik Dutta, **G. Arun Kumar**, Gopi Ram, and D. Suneel Verma, " Spatio-Temporal Non-Reciprocal Filters Theoretical Concepts and Literature Review", IEEE Microwave Magazine, 2021.

G. Arun Kumar, Souma. G. Mallick, B. Biswas, S. Chatterjee, and D. R. Poddar, "A compact, broadband three-way substrate integrated waveguide power divider with improved isolation", Circuit World, 2021.

VK Nishad, **AK Nishad**, BK Kaushik, R Sharma, "First-Principle Analysis of Transition Metal Edge-Passivated Armchair Graphene Nanoribbons for Nanoscale Interconnects," IEEE Transactions on Nanotechnology 20, 92-98

Bharath Sreenivasulu V. and **Vadthiya Narendar,** "Characterization and optimization of junctionless gate-all-around vertically stacked nanowire FETs for sub-5 nm technology nodes", Microelectronics Journal, Volume 116, October 2021, 105214.

Bharath Sreenivasulu V. and **Vadthiya Narendar,** "Design insights into RF/analog and linearity/distortion of spacer engineered multi-fin SOI FET for terahertz applications", International Journal of RF and Microwave Computer-Aided Engineering, e22875, 2021.

Bharath Sreenivasulu V. and **Vadthiya Narendar, "**Performance improvement of spacer engineered n-type SOI FinFET at 3-nm gate length", AEU - International Journal of Electronics and Communications, Volume137, July 2021, 153803.

Bharath Sreenivasulu V. and **Vadthiya Narendar, "**Design and Deep Insights into Sub-10 nm Spacer Engineered Junctionless FinFET for Nanoscale Applications", Silicon Journal,Accepted, May 2021.

Bharath Sreenivasulu V. and **Vadthiya Narendar, "**A Comprehensive Analysis of Junctionless Tri-Gate (TG) FinFET Towards Low-Power and High-Frequency Applications at 5-nm Gate Length",Silicon Journal,Accepted, Feburary 2021.

Bharath Sreenivasulu V. and **Vadthiya Narendar, "**Design and Deep Insights into Sub-10 nm Spacer Engineered Junctionless FinFET for Nanoscale Applications", ECS Journal of Solid State Science and Technology, Vol. 10, Issue. 1, pp. 013008, January 2021.

Yesudasu Vasimalla, **Himansu Shekhar Pradhan**, and Rahul Jashvantbhai Pandya, "Sensitivity Enhancement of SPR Biosensor for Pseudomonas Bacterial Detection Employing Silicon-Barium Titanate Structure", Applied Optics, May 2021 (Accepted).

Himansu Shekhar Pradhan, "Sensing accuracy enhancement of long range fiber optic temperature sensor using hybrid algorithm", IET Science, Measurement and Technology, 2021, pp. 1-9.

Yesudasu Vasimalla, **Himansu Shekhar Pradhan**, and Rahul Jashvantbhai Pandya, "Recent progress in surface plasmon

resonance based sensors: A comprehensive review", Heliyon-Elsevier, vol. 7, no. 3, 2021.

Yesudasu Vasimalla, **Himansu Shekhar Pradhan**, and Rahul Jashvantbhai Pandya, "SPR performance enhancement for DNA hybridization employing black phosphorus, silver, and silicon," Appl. Opt. 59, 2020, pp. 7299-7307

Gopi Ram, "Optimization for the reduction of power in sidebands and side lobes of time-modulated antenna array,"International Journal of Communication Systems, e4987, 2021

T Latha, **G Ram,** GA Kumar, M Chakravarthy," Review on Ultra-Wideband Phased Array Antennas," IEEE Access 9, 129742-129755, 2021

A Chakraborty, **G Ram**, D Mandal, "Time-modulated multibeam steered antenna array synthesis with optimally designed switching sequence," International Journal of Communication Systems 34 (9), e4828, 2021

Gopi Ram, ",Multi-beam steered harmonic pattern synthesis in timed antenna array with optimized and pre-defined RF switching"International Journal of Numerical Modelling: Electronic Networks, Devices, 2021

A Chakraborty, **G Ram**, D Mandal, "Multibeam steered pattern synthesis in time-modulated antenna array with controlled harmonic radiation,"International Journal of RF and Microwave Computer-Aided Engineering 31, 2021

A Chakraborty, **G Ram**, D Mandal, "Pattern synthesis of timed antenna array with the exploitation and suppression of harmonic radiation,"International Journal of Communication Systems 34 (4), e4727, 2021

Gopi Ram, "Evolutionary optimization for pattern synthesis and reduction of mutual coupling of linear antenna arrays," International Journal of Communication Systems 34 (1), e4614, 2021

D Suneel Varma, **G Ram**, G Arun Kumar, P Dutta, "Multi-objective Adaptive Antenna Synthesis Using Teaching Learning Based Optimization," Soft Computing for Problem Solving, 187-196, 2021

G Ram, D Suneel Varma, G Arun Kumar, "Memetic Flower Pollination Algorithm-Based Radiation Pattern in Time-Modulated Linear Antenna Arrays,"Soft Computing for Problem Solving, 187-196, 2021

A Chakraborty, **G Ram**, D Mandal, "Time-Domain Approach Towards Smart Antenna Design," Wideband, Multiband, and Smart Antenna Systems, 363-394,2021

A Chakraborty, **G Ram**, D Mandal, "Time-modulated linear array synthesis with optimal time schemes for the simultaneous suppression of sidelobe and sidebands," International Journal of Microwave and Wireless Technologies, 1-13,2021

E. Suresh Babu, **B. K. N. Srinivasarao**, Ilaiah Kavati and Mekala Srinivasa Rao, "Verifiable Authentication and Issuance of Academic Certificates Using Permissioned Blockchain Network," International Journal of Information Security and Privacy (IJISP) , Volume 16, Issue 1, 2022. DOI: 10.4018/ijisp.2022010107 2021, ESCI

Naik, Banoth Thulasya, and **Mohammad Farukh Hashmi**. "YOLOv3-SORT: Detection and Tracking Player/Ball in Soccer Sport", Journal of Electronic Imaging(SPIE), (2021). (Accepted) (SCI Indexed)

Hashmi, Mohammad Farukh , Jagdish D. Kene, Deepali M. Kotambkar, Praveen Matte, and Avinash G. Keskar. "An EfficientDetection Algorithm based on Kernel Principal Component Analysis-Support Vector Machine ." , Computers and Electrical Engineering, Elsevier (2021). (Accepted) (SCI Indexed)

Hashmi, Mohammad Farukh, Satyarth Katiyar, Abdul Wahab Hashmi, and Avinash G. Keskar. "Pneumonia detection in chest X-ray images using compound scaled deep learning model." Automatika (Taylor & Francis)62, no. 3-4 (2021): 397-406. (SCI Indexed)

Murthy, Chintakindi Balaram, **Mohammad Farukh Hashmi**, and Avinash G. Keskar. "Optimized MobileNet+ SSD: a real- time pedestrian detection on a low-end edge device." International Journal of Multimedia Information Retrieval (Springer)10, no. 3 (2021): 171-184. (SCI Indexed)

Salunke, Sharad, M. Venkatadri, **Md Farukh Hashmi**, and Bharti Ahuja. "Novel beta function-based image encryption with fractional sine transform." Materials Today:

Proceedings(Elsevier) (2021). (Scopus Indexed)

Hashmi, Farukh, Kiran Ashish, Satyarth Katiyar, and Avinash Keskar. "Computer Vision in Contactless BiometricSystems." INTERNATIONAL ARAB JOURNAL OF INFORMATION TECHNOLOGY 18, no. 3 A (2021): 484-492. (SCI Indexed)

Swain, Mahendra, Dominik Zimon, Rajesh Singh, **Mohammad Farukh Hashmi**, Mamoon Rashid, and Saqib Hakak. "LoRa-LBO: An Experimental Analysis of LoRa Link Budget Optimization in Custom Build IoT Test Bed for Agriculture 4.0." Agronomy(MDPI) 11, no. 5 (2021): 820. (SCI Indexed)

Murthy, Chintakindi Balaram, **Mohammad Farukh Hashmi**, Ghulam Muhammad, and Salman A. AlQahtani. "YOLOv2PD: An Efficient Pedestrian Detection Algorithm Using Improved YOLOv2 Model." CMC-COMPUTERS MATERIALS & CONTINUA(CMES) 69, no. 3 (2021): 3015-3031. (SCI Indexed)

Hashmi, Mohammad Farukh, B. Ashish, Vivek Sharma, Avinash G. Keskar, Neeraj Dhanraj Bokde, Jin Hee Yoon, and Zong Woo Geem. "LARNet: Real-Time Detection of Facial Micro Expression Using Lossless Attention Residual Network." Sensors(MDPI) 21, no. 4 (2021): 1098. (SCI Indexed)

Swain, Mahendra**, Mohammad Farukh Hashmi**, Rajesh Singh, and Abdul Wahab Hashmi. "A cost-effective LoRa-based customized device for agriculture field monitoring and precision farming on IoT platform." International Journal of Communication Systems(Wiley) 34, no. 6 (2021): e4632. (SCI Indexed)

Makdey, Swapnali, Rajendra Patrikar, and **Mohammad Farukh Hashmi**. "Modeling and implementation of spin diode based on two-dimensional materials using Monte Carlo sampling method." Circuit World (2020). (SCI Indexed) (https://doi.org/10.1108/CW-05-2020-0089).

Makdey, Swapnali, Rajendra Patrikar, and **Mohammad Farukh Hashmi**. "Modelingand design of Magnetic Tunneling Junction using MoS 2/graphene quantum dots/MoS 2 approach." Journal of Nanoparticle Research 22, no. 7 (2020): 1-13. (SCI Indexed) (https://doi.org/10.1007/s11051-020-04920-9).

Hashmi, Mohammad Farukh, Satyarth Katiyar, Avinash G. Keskar, Neeraj Dhanraj Bokde, and Zong Woo Geem. "Efficient pneumonia detection in chest X-ray images using deep transfer learning." Diagnostics 10, no. 6 (2020): 417. (SCI Indexed) (https://doi.org/10.3390/diagnostics10060417).

Hashmi, Mohammad Farukh, B. Kiran Kumar Ashish, Avinash G. Keskar, Neeraj Dhanraj Bokde, Jin Hee Yoon, and Zong Woo Geem. "An Exploratory Analysis on Visual Counterfeits using Conv-LSTM Hybrid Architecture." IEEE Access, vol. 8, pp. 101293-101308, 2020,. (SCI Indexed) (10.1109/ACCESS.2020.2998330).

Hashmi, Mohammad Farukh, B. Kiran Kumar Ashish, Avinash G. Keskar, Neeraj Dhanraj Bokde, and Zong Woo Geem. "FashionFit: Analysis of Mapping 3D Pose and Neural Body Fit for Custom Virtual Try-On." IEEE Access, vol. 8, pp. 91603- 91615, 2020. (SCI Indexed) (10.1109/ACCESS.2020.2993574).

Murthy, Chinthakindi Balaram, **Mohammad Farukh Hashmi**, Neeraj Dhanraj Bokde, and Zong Woo Geem. "Investigations of Object Detection in Images/Videos Using Various Deep Learning Techniques and Embedded Platforms—A Comprehensive Review." Applied Sciences 10, no. 9 (2020): 3280. (SCI Indexed) (https://doi.org/10.3390/app10093280).

Tiwari, V., **Hashmi, M.F**., Keskar, A. etal. Virtual home assistant for voice based controlling and scheduling with short speech speaker identification. Multimedia Tools and Applications, Springer 79, 5243–5268 (2020). SCI (https://doi.org/10.1007/s11042-018-6358-x)

K Sagar, **S. Maheshwaram**, "A novel circular double gate SOI MOSFET with raised source/drain", IOP Semicondcutor Science and Technology 36 (6), 065009, Apr. 2021.

Supraja P, Sankar PR, Kumar RR, **Prakash K**, Jayarambabu N, Rao TV. Characteristics of 2D ZnO-based piezoelectric nanogenerator and its application in non-destructive material discrimination. Advances in Natural Sciences: Nanoscience and Nanotechnology. 2021 Jun 14;12(2):025011.

P. Ravi Sankar, **K. Prakash,** P. Supraja, R. Rakesh Kumar, Siju Mishra, D. Haranath, "A triboelectric nanogenerator based on waste

food packaging silver foil and parafilm for self-powered portable electronic device applications"**– Accepted**

P. Supraja, R. Rakesh Kumar, Siju Mishra, D. Haranath, P. Ravi Sankar, **K. Prakash,** "A simple and low-cost approach for the synthesis and fabrication of ZnO nanosheet - based nanogenerator for energy harvesting and sensing" – **Accepted**

Patri Upender, **Amarjit Kumar**, "Quad-Band Circularly Polarized Tunable Graphene Based Dielectric Resonator Antenna for Terahertz Applications," Silicon, pp. 1-14, Aug. 2021, Science Citation Index Expanded, Impact factor=2.670,Publisher:Springer https://doi.org/10.1007/s12633-021-01336-5

C. Bhar, E. Agrell, "Energy- and Bandwidth-Efficient, QoS-Aware Edge Caching in Fog-Enhanced Radio Access Networks", IEEE Journal on Selected Areas in Communications (accepted January 2021)

Vasundhara, "Robust filtering employing bias compensated M-estimate affine-projection-like algorithm,"IET Electronics Letters 56(5), 241-242 , March 2020, SCI

Vasundhara, "Sparsity aware affine-projection-like filtering integrated with robust set membership and M-estimate approach for acoustic feedback cancellation in hearing aids," Applied Acoustics 175, April 2021, SCI

Conference publications

M.V. Raghunadh, Dr. N. Bheema Rao, "A compact low loss onchip bandpass filter for 5GnR N79 radio front end using IPD technology," Springer International Conference, MOSICOM 2020, BITS Dubai Campus, 29-31 JAN 2020, Springer Nature 2020

M.V. Raghunadh, Dr. N. Bheema Rao, "Design and Simulation of a Sub-6 GHz Low Loss Band Pass Filter Using Double Split Inductor for 5G Radio WLAN applications," Springer International Conference, ESIC 2020, National Institute of Technology, Itanagar, 4-6 MAR 2020.

M.V. Raghunadh, Dr. N. Bheema Rao, "Design of Three Super Compact 5G Band Pass Filters with Integrated Passive Device Technology for 802.11a Wireless LAN,Fifth International Conference IDES GRENZE ACTS 2020, Mumbai, JAN, 2021"

Lakshmi Boppana, Bharat Kumar Kuppuru, Krishna Karthik Nerella, Sharmila Kovvada, "Smart Wake-up Stroke Alert System,"TENCON 2020, 16-19 November 2020, Osaka, Japan.

Lakshmi Boppana, Minal kulkarni, Divya Katrevula, Harshita Daruri, "Deep Learning Approach for Dermototis Identification ," TENCON 2020, 16-19 November 2020, Osaka, Japan.

Lakshmi Boppana, Nikhat Shabnam, Tadikonda Srivatsava, "Deep Learning Approach for an early stage detection of Neurodevelopmental Disorders," 30 Sept to 2 Oct 2021, IEEE 9th Region 10 Humanitarian Technology Conference

B.B. Shabarinath, **P.Muralidhar**, "Custom-IP for Gradient Descent Optimization based on Hardware/Software Co-design Paradigm," 24th International Symposium on VLSI Design and TEST(VDAT 2020) June 23-25,2020,IIT Bhubaneswar

B.B.Shabarinath, **P.Muralidhar**, "Convolutional Neural Network based Traffic-Sign Classifier Optimized for Edge Inference," TENCON 2020 16-19 ,November ,2020 Osaka International Convention Center,Osaka,Japan

A Sowjanya, **D Vakula,** "Design of EI shape coupled lines based band pass filter with sharp roll off," The 13th Annual International conference ATMS 2021 Virtual conference" during 18th -20th Feb 2021.

G Srinivas, **D Vakula,** "High Gain and Wide Band Fabry Perot Resonator Antenna," The 13th Annual International conference ATMS 2021 Virtual conference" during 18th -20th Feb 2021.

Kishore Vejandla, SaiKiran Kollikonda, **Venkata Mani Vakamulla**, "Performance Analysis of PAM-DMT Under Double sided Signal Clipping in IM/DD BasedSystems" IEEE National Conference on Communication(NCC) , pg 1-6, IIT Kharagpur, 2020

Kalyan Chakravarthi, D.V.S.S. Siva Sarma, A. V. Giridhar and **G. Arun Kumar**, "Investigation of Log Periodic Dipole Array Printed Antenna for Recognizing Incipient Discharges in Power Transformer", 2021 1st International Conference on Power Electronics and Energy (ICPEE), January, 2-3, Bhubaneswar, India.

B Prasanthkumar, DB Fayaz, **AK Nishad**, "A Power-Efficient Clock Distribution Network with Novel Repeater,"2020 International Conference on Smart Electronics and Communication

VK Nishad, **AK Nishad**, S Roy, BK Kaushik, R Sharma, "First principle analysis of os-passivated armchair graphene nanoribbonsfor nanoscale interconnects," 2020 IEEE 20th International Conference on Nanotechnology (IEEE-NANO), 155-158

Salunke, Sharad, M. Venkatadri, **Md Farukh Hashmi**, and Bharti Ahuja. "Image Data Preservation with Fractional Sine Transform and Dual Chaotic Sequence." In Progress in Advanced Computing and Intelligent Engineering, pp. 201-210. Springer, Singapore, 2021.

Hashmi, Md Farukh, Kiran Kumar Ashish, Satyarth Katiyar, and Avinash G. Keskar. "AccessNet: A Three Layered Visual Based Access Authentication System for Restricted Zones." In 2020 21st International Arab Conference on Information Technology (ACIT) Egypt, pp. 1-7. IEEE, 2020.

Murthy, Chintakindi Balaram, and **Mohammad Farukh Hashmi**. "RealTime Pedestrian Detection Using Robust Enhanced YOLOv3+." In 2020 IEEE 17th India Council International Conference (INDICON), NSIT Delhi, EEE, 2020.

Murthy, Chintakindi Balaram, and **Mohammad Farukh Hashmi**. "RealTime Pedestrian Detection Using RobustEnhanced YOLOv3+." In 2020 IEEE 21st International Arab Conference on Information Technology (ACIT) Egypt, pp. 1-5. IEEE, 2020.

Swain, Mahendra, Rajesh Singh, **and Md Farukh Hashmi**. "Spade to Spoon: An IoT-Based End to End Solution for Farmer Using Machine Learning in Precision Agriculture." In Applications of Artificial Intelligence in Engineering, pp. 387-396. Springer, Singapore, 2021.

Hashmi, Md Farukh, N. Kusuma Priya, S. Surya Reddy, G. Vakula, and D. Usha. "Drowsiness Detection System Using Raspberry Pi and OpenCV." In International Conference on Mobile Computing and Sustainable Informatics, pp. 661-671. Springer, Cham, 2020.

Akshada Muneshwar, **B.K.N.Srinivasarao** and Ajay Chunduri, "FPGA Implementationand Comparative Analysis of DES and AES Encryption Algorithms using Verilog File I/O Operations," International Conference on Inventive Communication and Computational Technologies [ICICCT 2021] held in Namakkal, from 25-26 June 2021

Ramesh Reddy. D, Bikash K, Vivek K P, Sadek U. Z, and **Prakash Kodali , "**Design and Development of an IoT Based Smart Medication Device" International Conference on Soft Computing for Problem Solving - Accepted

Ramesh Reddy D, Pranava Addanki, Dr. C. D. Naidu, **Dr. Prakash Kodali, "**Extraction of pothole attribute for road infra maintenance using Kinect" 3rd International Conference on Communication and Computational Technologies (ICCCT 2021) February 27-28, 2021 - Accepted

D.Ramesh Reddy, Chandravathi Chella, K. Bala Ravi Teja, Heera Rose Baby, and **Dr.Prakash Kodali,** " Autonomous Vehicle Based on Deep Q-Learning and YOLOv3 with Data Augmentation", International Conference on Communication, Control and Information Sciences (ICCISc)- June 17-18, 2021 - Accepted

Funded Research Projects

New:

Prof. T. Kishore Kumar, "Development of Novel Video/Image Compression Algorithms", Rs. 9.8 lakhs (RCI-DRDO/CARS).

Ongoing:

Prof. L. Anjaneyulu: Virtual Reality based Simulator for Electric Winder, MOIL Limited (Ministry of Mines), Nagpur, Rs. 18.63 Lakhs.

Dr. J. Ravi Kumar and Dr. Maheshwaram Satish: Short Term Training Programme on Machine Learning and Deep Learning for Real time Applications, DST/ICPS/Training/ ST/2019- AIDST/ICPS/SCST/2019/55 Dated:31/03/2019,RS-987- GoI-DST-Dr.RKJ-ECE, Rs. 9.00 Lakhs

Prof. L. Anjaneyulu (Mentor) : Candidate : Prof T.Anil Kumar, CMRIT, Hyderabad, "Study and implementation of Channel Estimation Techniques for 5G Wireless Communication Systems," Sanctioned (No. TAR/2018/000899), Rs. 18.3 Lakhs.

Prof. L. Anjaneyulu: Virtual Reality Simulator for Koepe Winder, Hindustan Copper. Kolkata.

Dr. P. Sreehari Rao and Dr. P Muralidhar, "Advanced CMOS clock recovery circuits for mobile applications," SPARC, Rs. 45 lakhs

Dr D Vakula, Prof NVSN Sarma, "Modelling and Simulation of Wide Band Antenna Array for Missile Applications," 58-32 dated 14/11/2018, RCI, Hyderabad Rs. 18.6 Lakhs

Dr. V. V. Mani, and Dr. Rahul J. Pandya, et. al., " VLC-Based Vehicular Communication for enhancing Road Safety in Smart Cities," SPARC, Rs. 69 Lakhs.

Dr. V. V. Mani and Dr. V. Vasu, "Indigenous test bed for Industry 4.0 using Visible Light Communication with Industrial Internet of Things," ASEAN-India Science, Technology & Innovation Cooperation (AISTIC), Rs. 70.00 lakhs.

Dr. J. Ravi Kumar, "Design and implementation of fractional order PID controller for industrial applications using IoT," DST/ICPS/CPS-Individual/ 20181433(C) and 18-12-2018, Rs. 35 Lakhs.

Dr. Gande Arun Kumar, "Design and Development of a W-band Front-end for Imaging Applications using Silicon-Germanium Technology," ECR/2018/ 002390 dated 14/03/2019, Rs. 37.5 Lakhs.

Dr. B K N Srinivasa Rao, "Programmable Electronic Jacquard Machine for complex designs in Handloom sector," SRG, Rs. 22.5 Lakhs.

Dr. Chayan Bhar, "Design of a Multi-operator Telecommunication Network to support Heterogeneous Services using Network Slicing," RS-1016-GOT-SERB-SRG-Dr.Chayan Bhar, ECE-MC-SERB, 5.11.2020

Dr. Amarjit Kumar, "Wireless Health Monitoring of Ripened Fruits and Vegetables in Cold-Stores," P1114-Plan-Gen. RSM , Dt. 04 Dec 2020, Research Seed Money-NITW , Rs. 4.9 Lakhs

Dr. Chayan Bhar, "Design of Network Slicing Strategies to Support Heterogeneous Quality-of-Service Requirements," P1112-Plan-Gen. RSM , Dt. 04 Dec 2020, Research Seed Money-NITW, Rs. 4.8 Lakhs

Dr. Ekta Goel, "Performance optimization of Tunneling Finfets," P1113-Plan-Gen. RSM, Dt. 04 Dec 2020, Research Seed Money-NITW, Rs. 4.9 Lakhs.

Consultancy work details

Dr. Damera Vakula and Dr. Gande Arun Kumar, "Modelling and Simulation of Wide-band Vivaldi Antenna Array for UAV Applications", UTS-PO/2020-21/NITW/264, 22 Oct 2020 UTS, Hyderabad, Rs. 1.00 Lakh.

Patents (Filed, Published, Granted and Licensed)

a. Filed

Dr. B.K.N. Srinivasarao, Kalluru Vasanth Reddy, Dr. E. Suresh Babu, Dr. Injeti Satish Kumar, Electronic Jacquard Machine for Handloom Sector, Application No: 202141041502, (Filed, 15/09/2021).

Mohamamd Farukh Hashmi, A System for Prediction and Alert Of Local Rainfall For Tribal Areas Using Ai And IoT, Application No.202141027509 A, (Filed, 09/07/2021).

b. Published

NIL

c. Granted

V.Rama, CB Rama Rao, Swaraj Nikil, Santosh, Vidya, "A tele-health care system and method for early disease detection," Australian Patent No. 20211105599

d. Licensed

NIL

Books and Book Chapters

Anil Kumar Tipparti, and **Prof. L. Anjaneyulu**, "Advanced Aspects of Engineering Research", Vol.14, 20 May2021, Page: 104-111. https://doi.org/10.9734/bpi/aaer/v14/3895D. **Published:** 2021-05-20

Prof L. Anjaneyulu, and TV Anil Kumar, Implementation of Best Hybrid Adaptive and Intelligent MIMO Detector on Reconfigurable Architecture for 5G LTE/IoT Environment, Pages 49-56, Chapter 25, Springer Book Series, Smart Trends in Computing and Communications: Proceedings of SmartCom 2020, ISBN 978-981-15-5224-3, DOI 10.1007/978-981-15-5224-3

M.V. Raghunadh, Dr. N. Bheema Rao, "A compact IPD based on chip Band Pass Filter for 5G Radio Applications," In: T. Laxminidhi, Prof. Jyoti Singhai, Dr. Sreehari Rao Patri, V. V. Mani (eds) Advances in Communications, Signal Processing, and VLSI, Lecture Notes in Electrical Engineering. Springer, Singapore. DOI: 10.1007/978-981-33-4058-9

S K L V Sai Prakash and N Bheema Rao, "An Iterative Node-Pair Time Synchronization (INTS) for Wireless Sensor Networks," Book Chapter: Electronic Systems and Intelligent Computing, 2020, Springer, Scopus

S K L V Sai Prakash and N Bheema Rao, "K-Hop Iterative Time Synchronization Over a Linear Connected Wireless Sensor Networks," Book Chapter: Smart Computing Techniques and Applications, 2021, Springer, Scopus

K. V. Sai Kiran, Mohamed Azman, Eslavath Nandu, and **S. K. L. V. Sai Prakash**, "Real-Time Detection and Prediction of Heart Diseases from ECG Data Using Neural Networks," Advances in Intelligent Systems and Computing book series (AISC, volume 1245), 2020, Springer, Scopus

Dr. Mohammad Farukh Hashmi, "Voice-Controlled Biped Walking Robot for Industrial Applications", in Innovations in the Industrial Internet of Things (IIoT) and Smart Factory, IGI Global, ISBN: 9781799833758.

Pavitra, B., D. Narendar Singh,and **Mohamamd Farukh Hashmi**. "Voice-Controlled Biped Walking Robot for Industrial Applications." In *Innovations in the Industrial Internet of Things (IIoT) and Smart Factory*, pp. 79-92. IGI Global, 2021. (Scopus Indexed)

Swain, M., Singh, R., Gehlot, A. and**Hashmi, M.F**., "LoRaWAN: A Communication Protocol for IoT Agriculture Applications". In LoRA and IoT Networks for Applications in Industry 4.0. Nova Science Publishers, 2020.

Swain, M., Singh, R**., Hashmi, M.F.,**and Gehlot, A., "An IoT Enabled Integrated Framework for Solar Energy Harvesting in Wireless Sensor Nodes over LoRa". In Energy Harvesting Technologies for Powering WPAN and IoT Devices for Industry 4.0 Up-Gradation. Nova Science Publishers, 2020

Kalpana Naidu, et al. (2021) "**Optimal Resource Allocation Based on Particle Swarm Optimization.**" In: T. Laxminidhi, Prof. Jyoti Singhai, Dr. Sreehari Rao Patri, V. V. Mani (eds) Advances in Communications, Signal Processing, and VLSI, Lecture Notes in Electrical Engineering. Springer, Singapore. DOI: 10.1007/978-981-33-4058-9 17. (https://www.springerprofessional.de/en/optimal-resource-allocation-based-on-particle-swarm-optimization/19058988)

Kalpana Naidu, et al. (2021) "**Automated Bayesian Drowsiness Detection System Using Recurrent Convolutional Neural Networks**." In: T. Laxminidhi, Prof. Jyoti Singhai, Dr. Sreehari Rao Patri, V. V. Mani (eds) Advances in Communications, Signal Processing, and VLSI, Lecture Notes in Electrical Engineering. Springer, Singapore. DOI: 10.1007/978-981-33-4058-9 30.

Akash Tyagi, Bijit Biswas, **G. Arun Kumar**, Biplob Mondal, "Design and Simulation of a Dual Band Radiometer for Humidity and Temperature Profiling", in Advances in Communications, Signal Processing, and VLSI, Editors: T. Laxminidhi, Jyoti Singhai,

Sreehari Rao Patri, and V. V. Mani, Springer, Singapore, Vol: 722, Chapter-8, pp: 83-90, 2021. DoI: https://doi.org/10.1007/978-981-33-4058-9.

Akash Tyagi, Bijit Biswas, **G. Arun Kumar**, Biplob Mondal, "Design and Simulation of a W-band FMCW Radar for Cloud Profiling Application", in Advances in Communications, Signal Processing, and VLSI, Editors: T. Laxminidhi, Jyoti Singhai, Sreehari Rao Patri, and V. V. Mani, Springer, Singapore, Vol: 722, Chapter-18, pp: 213-218, 2021. DoI: https://doi.org/10.1007/978-981-33-4058-9.

Conferences, workshops, FDPs, Webinars organized

Dr. B. Lakshmi, Associate Professor, ECE, Dr. C. Vanitha, Associate Professor, MME, Dr. Kusum Kumari, Assistant Professor, Physics, Dr. B. Spoorthi, Assistant Professor, HSS, organized an International Conference on "Women Empowerment in Science and Technology (ICWEST-2021)" (Virtual Mode) on the occasion of International Women's Day 08-10 March 2021 sponsored by TEQIP III.

Dr. B. Lakshmi organized a 10 day FDP on " ASIC Design: Low Power Perspective" for Faculty (61), E&ICT, 01-07-2021 to 10-07-2021

Dr. B. Lakshmi, Dr T. L.Narayana organizeda 10 Day FDP on " AWS & Machine Learning"for Faculty (55), E & ICT, 04-10-2021 to 13-10-2021

Shri. S K L V Sai Prakash organized a ten Day Online Student Training Program on Future Skill Technologies - Internet of Things (IoT), for Students (75) , TEQIP III, 27- 07-2020 to 05-08-2020

Dr.B.K.N.Srinivasarao and Dr.E.Suresh Babu organized a Faculty development program on "Machine Learning for IoT Applications" for faculty (30), CCE, NITW, 07-09- 2020 to 11-09-2020

Dr. Maheshwaram Satish, Dr.Gaurav Trivedi, PN Kondekar, Amit M Joshi, Bharat Gupta, jointly organized a FDP on System Design Methodologies for Embedded, IoT, AI, & HPC using Intel FPGA,E&ICT,19- 04-2021 to 30-04-2021.

Dr. Maheshwaram Satish, Dr. Naresh T, Dr. Thyageshwar C, Prof. A. Ramachandraiah organized a 6 Day FDP on "Content Preparation and Delivery for Online Mode of Teaching (CPDOMT)" for faculty (34), TLC, 05-10-2020 to 10-10-2020.

Dr. Maheshwaram Satish, Dr. Gaurav Trivedi, Prof. PN Kondekar, Dr. Amit M Joshi, Dr. Bharat Gupta organized a 2 week program on "System Design Methodologies for Embedded, IoT, AI, & HPC using Intel FPGA" for faculty (Overall India ~600+) , E&ICT, Intel, 19-04-2021 to 30-04-2021.

Guest Talks/webinars delivered

Prof. Lokam Anjaneyulu, "Design and analysis of advanced antenna systems," at Vardaman college of engineering during 23-28August 2021

Dr. A Prakasa Rao, "Optimization Techniques in 5G," Sri Indu Institute of Engg and Tech., on 11/06/2021

Dr. A Prakasa Rao, "Optimization Techniques in Antennas," AICTE-STTP-II-SVECW-Bhimavaram on 26/08/2020

Dr. D. Vakula, "Antennas for 5G communications," Vignan Institute of engineering for women VSKP on 15-07-2021

Dr. D. Vakula, "Research on metamaterial used in defence applications," AICTE online STTP BVRIT Hyderabad on 23-11-2020

Dr. D. Vakula, "Research on metamaterial used in defence applications," AICTE online STTP BVRIT Hyderabad on 12-12-2020

Dr. D. Vakula, "Research on metamaterial used in defence applications," AICTE online STTP BVRIT Hyderabad on 12-10-2020

Dr. D. Vakula, "Antenna Fundamentals," AICT sponsored STTP AitamTekkli on 27-07-2020

Dr. D. **Vakula**, "Mathematical solvers for antenna design," AICT sponsored STTP AitamTekkli on 07-09-2020

Dr. D. Vakula, "Metamaterial antennas," Department of KLEF and IETE Vijayawada centre on 16-07-2020

Dr. D. Vakula, "Basics of reconcilable antennas," VRSEC Vijayawada on 20-07-2020

Dr. D. Vakula, "Massive mimo devices and circuits," Atal FDP, saranadha college of engineering Trihi on 09-06-2021

Dr. D. Vakula, "Antennas for 5G communications," VRSEC Vijayawada, AICTE FDP on 17-09-2020

Dr. D. Vakula, "Metamaterial antennas," Sri Vishnu college of enginnring for women ,Vijayawada on 27-07-2020

Dr. D. Vakula, "Applications of ANN in communications system," Geetham Institute of technology Vishakapatnam on 31-07-2021

Dr S Anuradha, "Fading channels and LDPC codes," AICTE Sponsored One Week Online STTP on "Recent Advances in Wireless Communications & Future Challenges" - Vardhaman College of Engineering (A), Hyderabad on 17th July 2020

Dr S Anuradha, "Error Coding Techniques in 5G Communications," one day Guest Lecture, Amritha School of Engineering, Chennai Campus on 28th August 2021

Dr S Anuradha, "FT and its properties," one day Guest Lecture, G H Raisoni Institute of Engineering & Technology, Nagpur on 9/10/2021

Dr S Anuradha, "Spatial Modulation Techniques," AICTE Sponsored One Week Online STTP on "Hands on project based approach for 5G design and development using MATLAB" - KITS College (A), Warangal on 22/01/2021

Dr. Kalpana Naidu, "Resource allocation in Heterogeneous Networks", at NIT Andhra Pradesh on 17/11/2020.

Dr. Kalpana Naidu, "Cognitive Radio and SDR", at Vardhaman College of Engg. Hyderabad, on 15/07/2020.

Dr. Kalpana Naidu, Heterogeneous Networks (HetNets) Vignan's deemed University Guntur, 4th Sep 2021 inICVSComs-2021 International conference

Dr. Gande Arun Kumar, "RF Receiver architectures", at Vardhaman College of Engg. Hyderabad, on 08/10/2020.

Dr. Gande Arun Kumar, Microstrip patch antenna design and reconfigurability using HFSS Two day workshop on Microwaves, antennas and electromagnetic fields at G.Pulla Reddy College of Engineering, Kurnool 07th August, 2021

Dr. Gande Arun Kumar, Millimeterwave front-end and component design FDP on Recent Trends in Wireless Communication (E&ICT Academy) 13th Oct., 2021

Dr. Gande Arun Kumar, Microwave front-end design for mobile handset FDP on 4G/5G Technologies (E&ICT Academy) 13th Sept., 2021

Dr.B.K.N.Srinivasarao, "Network on Chip," at VVIT Guntur on 20th July2020

Dr.B.K.N.Srinivasarao, "SoC and NoC architectures," SBTET Andhra Pradesh on 20th Aug.2020

Dr.B.K.N.Srinivasarao, "Fundamentals of Machine Learning Algorithms," at VVIT Guntur on 30th Nov 2020

Dr.B.K.N.Srinivasarao, "Network on Chip architectures," MVSR college of Engineering on 8th Nov 2020

Dr.B.K.N.Srinivasarao, "SoC-ARM CORTEX Architecture and programming examples" at MVSR college of Engineering on 23rd Nov 2020

Dr.B.K.N.Srinivasarao, "Machine Learning for IoT," at GEC Gudlavalleru on 10th December 2020

Dr. Md. Farukh Hashmi, Invitation as Expert on Fundamentals of TV engineering and Composite Video Signals Department of ECE, GHRIET, Nagpur (M.H.) 18 and 25 September 2021

Dr. Md. Farukh Hashmi,Computer Visionand Its Applications Department of CSE, R.V.R. &J.C.College of Engineering, Guntur (A.P.) 29 September 2021

Dr. Maheshwaram Satish, "Future Nano Electronic Devices and Circuits," MGIT, Hyderabad (Online) during 06-08 July 2020

Dr. Maheshwaram Satish, "Recent Trends in Nanoelectronic Devices," Anurag University, Hyderabad (Online) during 13-15 July 2020

Dr. Maheshwaram Satish, "Learning Management System (LMS) with MOODLE ," Teaching Learning Centre (TLC), NIT Warangal (Online) during 14 -17 (Batch–I), 21 - 24 (Batch-II), 28 -31 (Batch-III) July 2020"

Dr. Maheshwaram Satish, "Student training program on Future Skill Development - Internet of Things (IoT)," TEQIP III, NIT Warangal (Online) on 30 July 2020

Dr. Maheshwaram Satish, "VLSI Design Tools, Techniques and Applications," EICT,NIT Warangal & Vishnu Institute of

Technology, Bhimavaram (Online) on 10 August 2020

Dr. Maheshwaram Satish, "Advancements in Sigal Processing and Communicaiton Technologies," SBTET, Govt. of A.P (Online) on 21 August 2020

Dr. Maheshwaram Satish, "System on Chip Design – Basics to Development of Chips," AICTE & MVSR Engg. College (Online) on09 November 2020

Dr. Maheshwaram Satish, "Trends for Industry 4.0 Beyond 2020 | Electronics Engineering Perspective," J.C.Bose University of science and Technology, Faridabad (Online) on 18 March 2021

Dr. Prakash Kodali, Webinar talk on "New Frontiers of Bioelectronics & IoT" date 12-06-2021 at Department of Electrical Electronics & Telecommunication Engineering, DRIMES POLYTECHNIC College, Tangi, Cuttack, Odisha.

Dr. Prakash Kodali, Invited lectures for the STTP sponsored by AICTE - FDP titled "Recent Trends in VLSI Nanoelectronics for IoT Applications" dated on 26-3-2021 to 27-3-2021 in Department of Electronics and Communication Engineering, Malla Reddy College of Engineering, Hyderabad.

Dr. Amarjit Kumar, Realization of microwave/Millimetre-wave/THz devices for 5G wireless communication technology, Electronics & ICT Academy, NIT Warangal Date- 08.08.2021, Time: 3 PM - 5PM

Dr. Ekta Goel, "Short Channel Effects and their remedies for advanced Nano scaled MOS devices" at Guntur, Andhra Pradesh on 16/12/2020.

Dr. Ekta Goel, "Short Channel Effects and their Remedies for Advanced Nano ScaledMOS Devices," Faculty Development Program on TECHNOLOGY COMPUTER AIDED DESIGN: SIMULATION FOR VLSI DEVICES, CIRCUITS AND SYSTEMS at JIIT, Noida during 20th-25th July, 2020

Dr. Ekta Goel, "Advanced Semiconductor Devices, modeling and simulation Faculty Development Program on Modeling, Simulation & Fabrication of Futuristic Semiconductor, MEMS and NEMS Devices," at K L E F, Deemed to be University, Guntur District, A.P. during 14th to 19th December 2020

Dr. Ekta Goel, "Design and Simulation of Advanced Nanoscaled CMOS Devices for Low Power Applications," TEQIP III Sponsored One Week Online Short Term Training Program on "Design and Fabrication of VLSI Circuits" during 01 March 2021 to 05 March 2021.

Dr. Chayan Bhar, "Drone base stations for 5G and beyond", STTP on AI and 5G Communication Technology, 07/12/2020.

Dr. Chayan Bhar, "Technical talk on Next Generation communication: A Network Designer's Perspective", Vasavi College of Engineering, Hyderabad, 28/05/2021.

Dr. Vasundhara, "Signal Processing for Hearing Aid Design," TEQIP-III Sponsored one week short term training program on Recent Trends in Signal Processing: Theory and Applications, organized by UCE Bikaner during 26-30th August, 2020.

Dr. Vasundhara, "Smart Hearing Aids, "Faculty development program on Machine Learning and Smart Electronic System, organized by SKIT Jaipur during 03-05 September, 2020.

Dr. Vasundhara, "Machine Learning for Adaptive Health Care Systems," TEQIP-III Sponsored Two Days Online Workshop on Recent Advances in Artificial Intelligence by VSSUT Burla during 11th – 12th Sep 2020.

Dr. Vasundhara, "Optimisation techniques for adaptive controllers in acoustic applications," TEQIP-III Sponsored Two Days Online Workshop on Advancement of Optimization Techniques in Electrical Engineering Applications on 14th – 15th Sep 2020, organized by VSSUT, Burla during 14-15th sept, 2020.

Dr. Vasundhara, "Machine Learning for Adaptive Health Care Systems,"Faculty development program on Advanced Digital Signal Processing in association with IEEE signal processing society Madras section, organized by VIT, Vellore on 05-04-2021

New lab established/ Equipment and Software procured

Dr. P Muralidhar initiated talks with ARM limited and ARM Limited has donated 180 MDK KeilLicenses to Microcontrollers & Embedded Systems Lab for online Labs, worth USD 6,84,000 approx. Rs 5.0 crores

Dr. Maheshwaram Satish, AICD Lab Workstation- Camarero SS400TR, Tyrone, Rs. 2,25,420, Workstation for simulation Purpose, NITW-MHRD-RSM, 2019.

Dr. Maheshwaram Satish, AICD Lab "VTCADPA Semiconductor Device Simulator - 4 way Parallel Computation VPTKLA Energetic Particle Monte-Carlo Simulator " Visual TCAD Cogenda, Rs. 4,14,750, Software for simulation Purpose, NITW-MHRD-RSM, 2019.

Dr.B.K.N.Srinivasarao, Electronic Circuits Lab 3D Printer 3 Ding Hydra 250, Rs. 1,62,750.00, 3D Printing using PLA material, SERB, 2021.

Awards/ Recognitions/ Achievements

S K L V Sai Prakash and N Bheema Rao, Received Best Paper award for the paper titled "K-Hop Iterative Time Synchronization over a Linear Connected Wireless Sensor Networks" at 4th International Conference on Smart Computing and Informatics, Springer Nature and SCI 2020, and awarded a gift voucher for the value of EUR 200 (two hundred euros).

Dr. S. Anuradha chaired a session at International conference VCAS-2021 held at MNNIT, Allahabad during 24-26 Sep 2021.

Dr. Atul Kumar Nishad received best paper award for the paper titled "First Principle Analysis of Os-passivated Armchair Graphene Nanoribbons for Nanoscale Interconnects" published in a very reputed conference named "20th IEEE International Conference on Nanotechnology (IEEE-NANO)" , Montreal, QC, Canada.

Dr. Md. Farukh Hashmi chaired a session at International conference GCAT-2021 held at Nagarjuna College of Engineering and Technology, Bengaluru By IEEE Bangaluru Section during 1st -3rd October, 2021

Dr. Ekta Goel, "Selected as Primary Evaluator for Toycathon 2021," by Ministry of Education, 2020-2021

PhD Research guidance (Completed during the academic year)

12 full time students and 4 part time students have completed their PhD's during the 2020-2021.

Best student papers and other achievements

Raghu Vamshi Hemadri, Praveen Kumar Pokala, Chandra Sekhar Seelamantula, "Iteratively Reweighted Minimax-Concave Penalty Minimization for Accurate Low-rank Plus Sparse Matrix Decomposition," IEEE Transactions on Pattern Analysis and Machine Intelligence, 10.1109/TPAMI.2021.3122259, 2021

Details of students joined in higher educational institutes

S. No.	Name of the Student	Department	Placement Details
1	Dhruv Banala	ECE	Evosys
2	Archie Gupta	ECE	Qualcomm
3	Ashutosh Bhatta	ECE	O9 Solutions
4	B Snigdha Reddy	ECE	Yodlee
5	Venkata Chandini Bhanavathu	ECE	Silabs
6	B D Dehith	ECE	Tetcos llp
7	Daravathu Geethika	ECE	Qualcomm
8	Sidhartha Dulam	ECE	Amdocs
9	Harsh Anand	ECE	Lentra AI

10	Raghu Hemadri	ECE	Oracle
11	Stheya Julakanti	ECE	Qualcomm
12	Shashank Kanamarlapudi	ECE	Byju's
13	Karnekanti Srikaran	ECE	Byju's
14	Koripella Naga Surabhi	ECE	CITI Bank
15	Sai Kiran Kourike	ECE	Innominds
16	Maddala Durga Prasad	ECE	Qualcomm
17	Manthan Mitesh Tolia	ECE	OnePlus
18	Masadi Sairam	ECE	PlanetSpark
19	Ajith Kumar	ECE	Blackbuck
20	Mohit Tripathi	ECE	MasterCard
21	Mukul Verma	ECE	Edgeverve systems
22	Anas	ECE	L&T Infotech
23	Vishnu Vardhan Nimmalapudi	ECE	Deutsche Bank
24	Padamata Sai Harini	ECE	Wipro
25	Ps Vishnu Teja	ECE	Edgeverve systems
26	Adarsh Sanjay Patil	ECE	Amdocs
27	Uday Kumar Patnana	ECE	Qualcomm
28	P Jyoti	ECE	Byju's
29	Jethin Chandra Pilli	ECE	Standav
30	Prajay Radharapu	ECE	BRIDGEi2i Analytics
31	Rajidi Puneeth Reddy	ECE	OnePlus
32	Rallapalle Gayathri Chowdary	ECE	Goldman Sachs
33	Rayaluru Akshay	ECE	Qualcomm
34	Rohan Ayyagari	ECE	L&T Infotech
35	Samarth Singhal	ECE	Microsoft
36	Shaik Abubakar Siddiq	ECE	Byju's
37	Nikhat Shaikh	ECE	Apple
38	Shweta Shinde	ECE	Oracle
39	Shubham Kumar Singh	ECE	Broadridge
40	Siddarth Chintalapati	ECE	Novartis Healthcare
41	Somya Bhatnagar	ECE	Qualcomm
42	Varun Swamy	ECE	Edgeverve systems
43	Dinesh Koushik Takasi	ECE	Modak Analytics
44	Talluri Kousik	ECE	Amdocs
45	T. Sathvika Sagar	ECE	Strand Life Sciences
46	Thangallapally Shirisha	ECE	Qualcomm
47	Thota Giri Sai Reddy	ECE	BEL
48	Tummala Sandesh Reddy	ECE	Amdocs
49	Tejashwini Vankalagaddi	ECE	Cloudera
50	Sai Charan Vemula	ECE	Amagi
51	Vinod Gundlathoti	ECE	Innominds
52	Vittanala Jaya Ramakrishna	ECE	Edgeverve systems

53	Y Sindhu Sri	ECE	Oracle
54	Harshith Yerra	ECE	Leoforce
55	Aditya Bhonsle	ECE	L&T Infotech
56	Anshika Srivatsava	ECE	Oracle
57	Ayushi	ECE	Qualcomm
58	Bandigi Rohith Kumar	ECE	Kagool
59	Bhagan Ram	ECE	Edgeverve systems
60	Barath Choudhary	ECE	Oracle
61	Boddu Umesh Chandra	ECE	Innominds
62	Akshith Chennuri	ECE	Wipro
63	Divya Pamidi	ECE	American Express
64	Gangishetti Kavya Sri	ECE	Qualcomm
65	Harish Patidar	ECE	Radisys
66	Harsha Vardhan Koganti	ECE	Western Digital
67	Ram Prabodh Induri	ECE	Servicenow
68	Siva Amrutha Jyosyula	ECE	Tata Steel
69	K. Vasanth Reddy	ECE	Qualcomm
70	Praneeth Reddy Kunduru	ECE	Publicis Sapient
71	L Akhil Bharadwaj	ECE	Analog Devices
72	M. Kavya	ECE	Qualcomm
73	Gunasekhar Matta	ECE	Kagool
74	Mohammad Mohsin Ahmed	ECE	Micron Technology
75	Mujavar Sameer Ahmed	ECE	Deloittee
76	Mulka Sai Chandu	ECE	Edgeverve systems
77	Nandigama Sai Shashank	ECE	American Express
78	Nikhat Shabnam	ECE	Qualcomm
79	Nilesh Maurya	ECE	Netcracker
80	Nitesh Kumar	ECE	Chubb
81	Sushma Devi Pasumarthi	ECE	Deloittee
82	Bhanu Teja Perumandla	ECE	Thoughtworks
83	Pradeep Kamal	ECE	BRIDGEi2i Analytics
84	R Rama Krishna	ECE	BEL
85	Rajesh Kumar Swami	ECE	Edgeverve systems
86	Rajshree	ECE	ACT Fibre
87	Rishab Jain	ECE	Blueyonder
88	Kottam Sai Kiran Reddy	ECE	Radisys
89	Sappa Ajay Babu	ECE	Zenoti
90	Bilal Shaik	ECE	Amdocs
91	Shobhit Patidar	ECE	L&T Infotech
92	Shyamal Aravind	ECE	BNY Melon
93	Sirendra Dasari	ECE	L&T Infotech
94	Surigi Hemachander	ECE	Inforsystems
95	Swetha Paturu	ECE	L&T Infotech

96	Tadikonda Srivatsava	ECE	tredence analytics
97	Talla Saidev	ECE	Amdocs
98	Tanumon Roy	ECE	WELLS FARGO
99	T Ruthvik Reddy	ECE	Edgeverve systems
100	Udit Mehrotra	ECE	CITI Bank
101	Varakantham Shiva Reddy	ECE	Truechip
102	Venkat Narayan.G	ECE	HCL
103	Vishav Kapahi	ECE	Oracle FSS
104	Tarun Yaramala	ECE	ZS
105	Yash Deshmukh	ECE	Blackbuck

S. No.	Name of the Student	Department	Higher studies
1	K Aditya Sai	ECE	M. Tech. at IIT Bhubaneshwar
2	Siddarth Chintalapati	ECE	MS at CU, Boulder
3	Sruthi Rajesh	ECE	MS at Arizona State University
4	Ayushi	ECE	M. Tech, IIT Kharagpur
5	K. Nikhil	ECE	M. Tech, NIT Warangal
6	P. Sushma Devi	ECE	MBA, Pennsylvania State University

Department Outreach Activities

Dr. B.K.N.Srinivasarao audited the Academic activities of Dept. of Electronics and Instrumentation, VR Sidhartha Engineering College, Vijayawada On 17/09/2021 as External Academic Audit Member.

Dr. Mohammad Farukh Hashmi Ph.D. Oral Viva Examinations Expert, Centre of Research, Anna University Chennai. On 20/09/2021

Department Association/Students Clubs Activities

IEEE Microwave theory and techniques student branch chapters and Circuits and systems student branch chapters have been formed

MTT Student organized two webinars and a DMI workshop

1. Dr. Sandeep Chaturvedi, "IEEE Student Membership Benefits" on 12/09/2021
2. Dr. Pragnan Chakravarthi, "Microwave Devices for Next Generation Wireless Communication" on 29/10/2021
3. DMI lectures to UG and PG students by Prof.Maurizio Bozzi, University of Pavia, Italy and Prof. Quan Xue, South China University & Technology, China on 26/11/2021

ECE Association organized the following

1. Digital arms race on 01/09/2021 by Mr. Ajinkya Lohakare
2. Hardware weekend during 11-12th September

3. Online content for Intern placement series
4. Shell Scripting workshop on 19/09/21 by Sitanshu Shukla and Saketh Amargani
5. All about CAT webinar on 26/09/2021 by Mr. Goldy Admane, Mr. Preetam Kumar and Mr. K. Madhusudhan
6. Online content for Cognizance Serie.
7. Battle of memes on 15/10/2021
8. TechFlix- Virtual Techno Cultural Fest during 22/10/2021 to 25/10/2021
9. UPSC talk on 30/10/2021 by Mr. Subhankar Bala
10. Webinar on"How to Secure Dream Jobs in the US" on 02/11/2021 in collaboration with The Indian Conclave, Speakers from George Washington University.
11. Codeforces Gym ongoing

Any other Department Specific

Highlights of the department (Research, state of art equipment, facilities, innovative practices etc. With photographs)

	
Research Highlight: A low cost touchless sanitizer dispenser has been developed by V Sudhakar, a technical assistant in the Electronics and Communication Engineering (ECE) department at National Institute of Technology, Warangal (NITW). The sanitizer is designed in two versions: table top and wall mounted for usage in offices and public places. The sanitizer dispenser is based on the ultrasonic sensor microcontroller and LED solenoid theory, it can be made available for just Rs 800 while other products with the same specifications in the market are priced at Rs 2,000.	**Research Highlight:** A low-cost foot-operated sanitiser dispenser with waste material has been developed by V Sudhakar, a technical assistant in the Electronics and Communication Engineering (ECE) department at National Institute of Technology, Warangal (NITW). The foot-operated sanitiser stand costs less than Rs 300. It is made of waste PVC pipes.

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<td>Manpower Development Programme (SMDP) for Chip to Systems, an "ON CHIP Powermanagement solution" formobile applications was designed under the supervision of Dr. Sreehari Rao Patri of ECE Department and the Chips were fabricated by UMC technology, Belgium. This integrated circuit has the potential to provide a robust regulated power to mobile gadgets.</td>
<td>A patent has been granted on A tele-health care system and method for early diseasedetection to Dr. V. Rama, Prof.
C. B. Rama Rao, Swaraj Nikil, Santosh, Vidya.</td>
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<td colspan="2">Dr BKN Srinivasa Rao, Asst Professor was sanctioned a DST SERB project worth Rs 22 Lakhs, The Field test and Integration of "Programmable Electronic Jacquard Machine for complex designs in Handloom sector" has been performed and a patent has been filed.</td>
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Summary

(June 1, 2020-May 31, 2021)

S.No.	Activity	Number
1	Publications (Peer Reviewed Journals/ conferences)(SCOPUS/SCI)	
	International Journals	*92*
	National Journals	*03*
	International Conferences	*23*
	National Conferences	*02*
2	Funded Research Projects/SPARC projects (2020-21)	
	Completed Projects	0
	Ongoing Projects (Rs 3.364 Crores)	16
	Ministry of Mines Project (Rs. 18.63 Lakhs)	01
	SPARC PROJECTS (69 Lakhs + 45 Lakhs)	02
	ASEAN-India Science, Technology& Innovation Cooperation(AISTIC)(70Lakhs)	01
	TARE (18.3 Lakhs)	01
	DST, SERB (35 Lakhs+37.5 Lakhs+22.5 Lakhs+9.00 Lakhs+11.5 lakhs)	05
	DRDO projects (9.8 Lakhs+18.6 Lakhs)	02
	Seed grant projects	04
3	SPARC Project Workshops	NIL
4	Consultancy Works (2020-21)	01
5	Patents	03
	Awarded	01
	Filed	02
6	Books and Book Chapters	14
	Books	0
	Book Chapters	14
7	Conferences/ Workshops/GIAN courses/FDPs Conducted	*08*
8	Guest talks/ Webinars delivered	*56*
9	New Labs Established (Equipment/Software Procured)	*04*
10	Awards/Recognitions/Achievements	*05*
11	Research Guidance (Completed in 2020-21)	16
12	International Visits of the Faculty Members/ students	*0*
13	Students Achievements	
	Placements	
	B.Tech (avg. Sal.: 14.49Lakhs)	105
	MTech (avg. Sal.: 16.37Lakhs)	38
	Lab Development Activities	0
	Conference visits	0
14	ECE Association Activities	*11*
15	IEEE Activities – Student Branch Chapters -New	*3*
16	Distinguished Guests visiting the Department/Delivering Expert Lecture/Keynote Address	*0*
17	Outreach Programmes	*2*

DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

Brief History of the Department, Academic Programs

The Metallurgical Engineering Department of NIT, Warangal was found in the year 1965. The third and final year students (5 each) of B. Tech program are supported by Ministry of Steel Scholarship. In the last academic year, the IV B. Tech students have got placement opportunities in core companies such as Reliance Industries Limited, Vedanta, Essar Steel India Ltd., JCB etc. along with software and finance management companies. Ms. Vidisha secured First Rank in GATE 2020 and in fact, every year 5 to 10 students qualify in GATE with ranks less than 300. In case of M. Tech students, few got campus placements and few others got off-campus job offers along with PhD admissions in IITs. About 39 research scholars are currently pursuing their PhD in the department. The department has been part of National Mission Project on developing Advanced Ultra Supercritical (AUSC) technology for the country. Currently about Rs. 1.6 crores worth of research projects are being carried out in the department. Some of the major research funding organisations are DAE-BRNS, DST-SERB, UGC-DAE-CSR, ARDB, NTPC-NETRA, AUSC, ISRO, and DRDO.



Faculty Details:

S. No.	Name of the Faculty Member and Designation	Highest Qualification	Research Interests	Photograph
1.	Dr. Asit Kumar Khanra Assoc. Professor & Head	Ph. D	Powder Metallurgy, Processing of Advanced Ceramics, Biomaterials	
2.	Dr. G. V. S. Nageswara Rao Professor (HAG)	Ph. D	Powder metallurgy, Surface Engineering, Materials Testing and Characterization	
3.	Dr. N. Narasaiah Professor	Ph. D	Mechanical Behaviour of Materials, Fatigue, Fracture Mechanics, Failure Analysis	
4.	Dr. C. Vanitha Associate Professor	Ph. D	Physical Metallurgy, Texture, Nuclear Materials, Light Metals & Alloys, Corrosion	
5.	Dr. T. Mahesh Kumar Associate Professor	Ph. D	Metal Joining, Additive Manufacturing, High Temperature Materials	

6.	Dr. N. Kishore Babu Associate Professor	Ph. D	Metal Joining, Additive manufacturing, nanocomposites	
7.	Dr. Brahma Raju Golla Asst. Professor Grade-I	Ph. D	Ultra High Temperature Ceramics, Advanced Materials Processing, Tribology	
8.	Dr. B. Srinivasa Rao Asst. Professor Grade-I	Ph. D	Process- Microstructure-Property Relationship, Nanocrystalline Materials	
9.	Dr. Ajoy Kumar Pandey Asst. Professor Grade-I	Ph. D	Mechanical Metallurgy, Bio-Ceramics, Powder Metallurgy	
10.	Dr. R. Arockia Kumar Asst. Professor Grade-I	Ph. D	Shape Memory Alloys, Friction Stir Processing, Physical Metallurgy, Severe Plastic Deformation	
11.	Dr. V. Sreedevi Asst. Professor Grade-II	Ph. D	Synthesis and Characterization of Bulk Nanocrystalline Materials	

12.	Dr. V. Rangadhara Chary, Asst. Professor Grade-II	Ph. D	High Performance Structural Ceramics, High Entropy Alloys Phase Transformations	
13.	Dr. Uma Maheswara Rao S Asst. Professor Grade-II	Ph. D	Non-equilibrium Processing of Materials, Advanced Characterization, Magnetic Materials	
14.	Dr. Y. Raghupathy Asst. Professor Grade-II	Ph. D	Applied Nanomaterials and Coatings, Corrosion Engineering	
15.	Dr. Sukla Mondol Asst. Professor Grade-II	Ph. D	Alloy development, light alloys, Microstrutural characterization, TEM	

Journal Publications

Sudarshan Kumar,Srishti Ramteke , Shailaja Chelika and **C. Vanitha**, Creep behaviour of Al-Si-Mg alloy by hot impression creep test,Materials today: proceedings,2020

Saijyothi Nagireddi, D. Arvindha Babu, **B. Srinivasarao**, Bhaskar Majumdar Processing of Hf based bulk metallic glass through Spark Plasma Sintering (SPS) process, Journal of Alloys and Compounds, 876, 2021, 160057

Shiven Ponnapureddy, Aritra Sarkar, A. Nagesha, N. Narasaiah, **B. Srinivasa Rao** , A re-visit to the Haigh diagram with the effect of creep damage on the high cycle fatigue behavior of alloy 617M, International Journal of Fatigue, 149, 2021, pp. 106258

Katti Bharath, **Asit Kumar Khanra** and MJ Davidson, Hot deformation behavior and dynamic recrystallization constitutive modeling of Al–Cu–Mg powder compacts processed by extrusion at elevated temperatures, J Materials: Design and Applications, 0(0) 1–16, 2020

KattiBharath, ArkaMandal, AnishKarmakar, **Asit Kumar Khanra**, M.J.Davidson, Understanding the effect of hot extrusion on the evolution of microstructure and associated mechanical properties in sintered Al-Cu-Mg alloys, Materials Characterization 170(3), 2020

Balaji Padya, P.K. Enaganti, Ravi Kali, N. Ravikiran, **N. Narasaiah**, P.K. Jain, A controlled process of atomic-scale material design via temperature-mediated grain refinement of NiCo2O4rods for capacitive energystorage, Journal of Science: Advanced Materials and Devices, 5 (2020) 173-174

Balaji Padya, N. Ravikiran, Ravi Kali, **N. Narasaiah**, P. K. Jain, High thermal energy storage and thermal conductivity of few-layer graphene platelets loaded phase change materials: A thermally conductive additive for thermal energy harvesting, Energy Storage 2 (2020) 199

Balaji Padya, Ravi Kali, N. Ravikiran, **N. Narasaiah**, P.K. Jain, Constructing graphene-coupled nitrogen-doped carbon-based all-carbon hybrid for hybrid Li-ion supercapbattery: An investigation and insight into "charge-averaged" charge/discharge voltage analysis, Journal of Alloys and Compounds 872 (2021) 159660

Shiven Ponnapureddy, Aritra Sarkar, A. Nagesha, **N.Narasaiah**, Bonta Srinivasa Rao, A re-visit to the Haigh diagram with the effect of creep damage on the high cycle fatigue behavior of alloy 617M, International Journal of Fatigue, 149, (2021) 106258

Y. Madhavi, **N.Narasaiah**, A. Jyothirmayi, L. Rama Krishna, Influence of surface roughness on the corrosion-fatigue behavior of MAO coated 6061-T6 Al alloy assessed in NaCl medium, Surface and Coatings Technology, 414 (2021) 127102

Balaji Padya, Ravi Kali, P.K.Enaganti, **N.Narasaiah**, P.K.Jain, Facile synthesis and frequency-response behavior of supercapacitor electrode based on surface-etched nanoscaled-graphene platelets, Colloids and Surfaces A, 609 (2021), 125587

Y. Madhavi, L. Rama Krishna, **N. Narasaiah**, Corrosion fatigue behavior of micro arc oxidation coated 6061-T6 Al alloy, International Journal of Fatigue 142 (2021) 105965

Y. Madhavi, L. Rama Krishna, **N. Narasaiah**, Corrosion-fatigue performance of hard anodized, MAO coated 2024-T3 and 7075-T6 aerospace Al alloys, Transactions of Indian Institute of Metals, (2021 In Press), DOI: https://doi.org/10.1007/s12666-021-02313-7

Murugesh Kumar R and **Brahma Raju Golla**, Effect of space holder on porosity, structure and mechanical properties of porous Al processed via powder metallurgy, Transactions of the Indian Institute of Metals (in press, 2021)

Sravan Kumar Thimmappa, **Brahma Raju Golla**, Suresh Babu Pitchuka and Bhanu Prasad V. V., Nanoindentation and high temperature oxidation behavior of ZrB2-

20SiC-(0-10 wt.%) Ta UHTCs, Ceramics International (in press, 2021)

Geethasree Kommineni, **Brahma Raju Golla**, Zafir Alam, Rajdeep Sarkar, V.V. Satya Prasad, Structure-property correlation and deformation mechanisms in ductile phase (Nbss) toughened cast Nb-Si alloys, Journal of Alloys and Compounds (in press, 2021)

Kommineni Geethasree, Zafir Alam, P. Sudharshan Phani, Rajdeep Sarkar, V. V. Satya Prasad, **Brahma Raju Golla**, Influence of Ti and Zr alloying elements on microstructure and micromechanical properties of near eutectic Nb-18.7Si alloy, Materials Characterization 171 110723 (2020)

Raju Vemoori and **Asit KumarKhanra**, Microstructural and mechanical properties of Al2O3 and ZTA foams prepared by thermo-foaming technique, Ceramic International – 2021- https://doi.org/10.1016/j.ceramint.2021.07.161

Bheekya Naik, K Venkateswara Reddy, G Madhusudhan Reddy, **R. Arockia Kumar**, Development of high strength high electrical conductivity Cu-Gr composites through friction stir processing, Materials Letters, 265 (2020) 127437

K Venkateswara Reddy, R. Bheekya Naik, G. Rama Rao, G Madhusudhan Reddy, **R. Arockia Kumar**, Microstructure and damping capacity of AA6061/graphite composites produced through friction stir processing, Composite Communications, 20 (2020) 100352

Bheekya Naik, K Venkateswara Reddy, G Madhusudhan Reddy, **R. Arockia Kumar**, Development of high strength and high electrical conductivity Cu-Cr-Zr alloy through friction stir processing, Fusion Engineering and Design 161 (2020) 111962

B. Bhav Singh, G. Sukumar, Ashish Paman, G. Balaji, K. Siva Kumar, V. Madhu, **R. Arockia Kumar**, Comparative Study on the Ballistic Performance and Failure Mechanisms of High Nitrogen Steel and RHA Steel Against Tungsten Heavy Alloy Penetrators, Journal of Dynamic Behavior of Materials 7 (2021) 60–80

Ramavath Bheekya Naik, K Venkatweswara Reddy, G Madhusudhan Reddy, **R Arockia Kumar**, Microstructure, mechanical and wear properties of friction stir processed Cu-1.0%Cr alloys Fusion Engineering and Design 164 (2021) 112202

Veera Babu, Jean Maria Fernandes, M. Kovendhan, Nandarapu Purushothamreddy, Reddivari Muniramaiah, **R.Arockiakumar**, N.S.Karthiselva, D. Paul Joseph, Investigation of structural, optical, electrical and mechanical properties of transparent conducting 'Ag' electrodes, Physica B: Condensed Matter 607 (2021) 412690

K Venkateswara Reddy, R. Bheekya Naik, G Madhusudhan Reddy, P. Chakravathry, S. Janakiram, **R. Arockia Kumar**, Damping capacity of aluminium surface layers developed through friction stir processing, Materials Letters 298 (2021) 130031

Prabhu, **R. Arockia Kumar**, T. K. Nandy Tungsten heavy alloys with two-phase matrix, **Defence Science Journal** 71 (2021) 564-571

Prabhu, **R. Arockia Kumar**, T. K. Nandy Fine tungsten precipitates in the matrix phase and their influence on the mechanical properties of a tungsten heavy alloy, PhilosophicalMagazine (2021) https://doi.org/10.1080/14786435.2021.1948131

Naga Sruthi Neelam, S. Banumathy, A. Bhattacharjee, **G.V.S. Nageswara Rao**, Md Zafir Alam Comparison of the isothermal and cyclic oxidation behaviour of Cr and Mo containing g-TiAlNb alloys, Corrosion Science 163 (2020) 1-22

Naga Sruthi Neelam, S. Banumathy, **G.V.S. Nageswara Rao**, A.K. Singh, A. Bhattacharjee Phase transformations in g-aluminide Ti-46.5Al-xNb-yCr-zMo-0.3B (x=3.5, 5; y, z=0,1,2) alloys, Metallography Microstructure and Analysis 9 (2020) 345-359

Naga Sruthi Neelam, S. Banumathy, **G.V.S. Nageswara Rao**, A. Bhattacharjee, Study of microstructure and mechanical properties of

g-Ti-46.5Al-2Cr-(3.5 & 5.0) Nb alloys, Materials Today: Proceedings (2021) (41) 1069-1072

Funded Research Projects

New Projects Sanctioned:

Dr. Mahesh Kumar Talari, Development of novel B and C modified fillers for the gas tungsten arc welding of Ti alloys, Aeronautics R&D Board, DRDO, Rs. 48 Lakhs

Dr. Nagamuthu Kishore Babu, Understanding the Role of Hydrogen in Titanium Alloy Weldments, Aeronautics R&D Board, DRDO, 48.24 Lakhs

Ongoing Projects:

Dr. Sreedevi Varam, Hydrogen Production through Water Splitting by Novel Nanocrystalline Al-based Alloys (with Added Few Layered Graphene), SERB-Core Research Grant, File No. SERB/F/10375/2019-20 dated 18/02/2020, Rs. 34.2 Lakhs.

Dr. Uma Maheshwara Rao Seelam, Towards 3 tesla coercivity Nd-Fe-B magnets without dysprosium addition into the bulk, SERB-Core Research Grant, File No. CRG/2020/006001 Dt. 29/12/2020, Rs. 29.8 Lakhs.

Completed Projects:

N. Narasaiah, Evaluation of Creep-Fatigue Crack Growth (CFCG) for Alloy 625 Cast material, AUSC: I-KPK-T-MDG-035, dated: 16-05-2018 , IGCAR, Kapakkam, DAE, Govt. of India (01.05.2018–30.09.2019), 490.56 Lakhs.

N.Narasaiah, Oxide dispersion strengthened (ODS) iron based alloys for Advanced Utra Super Critical (AUSC) Technology. TMD/CER/CleanCoal/2017/036 (ARCI) (C) and (G) dated 24-08-2018 (01.10.2018 – 30.09.2021), 90.812 Lakhs.

R. Arockia Kumar, Development of high vibration damping composite layers through friction stir processing, ECR/2017/001227 dated 23 June 2017 DST-SERB-ECR, (15.07.2017-14.12.2020) 44.04 Lakhs.

GVS Nageswara Rao, Generation of Creep Data of wrought Alloys of 617M and 304HCu, AUSC:I-KPK-T-MDG-008, Date: 13/02/2018IGCAR, Kapakkam, DAE, Govt. of India, (28.06.2018 to 31.01.2021) 620.9 Lakhs.

GVS Nageswara Rao, Evaluation of Creep-Fatigue interaction properties of Alloy 617M forging, AUSC:I-KPK-T-MDG-007, Date: 14/05/2018 IGCAR, Kapakkam, DAE, Govt. of India, (24.08.2018 to 30.09.2020) 348.89 Lakhs.

GVS Nageswara Rao, Evaluation of Creep-Fatigue interaction properties of Alloy 625 Casting, AUSC:I-KPK-T-MDG-033, Date: 14/05/2018 IGCAR, Kapakkam, DAE, Govt. of India, (06.12.2018 to 31.01.2021), 348.89 Lakhs.

Ajoy K. Pandey, B. Srinivasa Rao, Asit K. Khanra, G. Brahma Raju, N. Narasaiah, Evaluation of Creep – Fatigue Crack Growth (CFCG) for Alloy 617 forging material, Mission Directorate, AUSC, AUSC: I-KPK-T-MDG-034, dated: 16-05-2018, Rs. 481.0 Lakhs.

S. No.	Title	Total Amount sanctioned	Funding agency and Project No.	Installment 1, 2018-2019	Installment 2, 2019-2020	Installment 3, 2020-2021
1	Development of novel B and C modified fillers for the gas tungsten arc welding of Ti alloys	48 Lakhs	AR&DB	----------	----------	Rs.29,81,172.00 Installment 1
2	Understanding the Role of Hydrogen in Titanium Alloy Weldments	48.24Lakhs	AR&DB	----------	----------	Rs.29,24,770.00 Installment 1

3	Hydrogen Production through Water Splitting by Novel Nanocrystalline Al-based Alloys	34.2 Lakhs	SERB-Core Research Grant, File No. SERB/F/10375/2019-20	----------	Rs.19,46,754.00 Installment 1	Yet to receive 2nd installment
4	Towards 3 tesla coercivity Nd-Fe-B magnets without dysprosium addition into the bulk	29.8 Lakhs	SERB-Core Research Grant, File No. CRG/2020/006001	----------	----------	Rs.9,50,000.00 Installment 1 **(2021-2022)** Rs.6,99,000.00 Installment 2
5	Evaluation of Creep-Fatigue Crack Growth (CFCG) for Alloy 625 Cast materialAUSC	490.56 Lakhs	IGCARKapakkam, DAE, Govt. of India AUSC: I-KPK-T-MDG-035, dated: 16-05-2018 ,	Rs.4,68,85,000.00	----------	----------
6	Oxide dispersion strengthened (ODS) iron based alloys for Advanced Utra Super Critical (AUSC) Technology	90.812 Lakhs	DST TMD/CER/CleanCoal/2017/036 (ARCI) (C) and (G)	Rs.70.730 Lakhs	Rs.3.12 Lakhs	Rs.2.2 Lakhs
7	Development of high vibration damping composite layers through friction stir processing	44.04 Lakhs	DST-SERB-ECR ECR/2017/001227 dated 23 June 2017	Rs.5,15,470.00	----------	----------
8	Generation of Creep Data of wrought Alloys of 617M and 304HCu	620.9 Lakhs	IGCARKapakkam, DAE, Govt. of India AUSC:I-KPK-T-MDG-008	Rs.5,75,21,602.00	Rs.36,33,503.00	Rs.9,43,702.00
9	Evaluation of Creep-Fatigue interaction properties of Alloy 617M forging	348.89 Lakhs	IGCARKapakkam, DAE, Govt. of India AUSC:I-KPK-T-MDG-007,	Rs.3,39,12,000.00	Rs.9,77,000.00	----------
10	Evaluation of Creep-Fatigue interaction properties of Alloy 625 Casting	348.89 Lakhs	IGCARKapakkam, DAE, Govt. of India AUSC:I-	Rs.3,39,12,000.00	Rs.9,77,000.00	----------

			KPK-T-MDG-033			
11	Evaluation of Creep – Fatigue Crack Growth (CFCG) for Alloy 617 forging material	481.0 Lakhs	IGCARKapakkam, DAE, Govt. of India AUSC: I-KPK-T-MDG-034	Rs.4,47,11,000.00	----------	----------

Guest Talks/webinars delivered

C. Vanitha, Effect Of Annealing Temperature On Microstructure And Mechanical Properties Of Selective Laser Melted Ti-6Al-4V Alloy, Dr.N.G.P. Institute of Technology, Coimbatore , TN, 15 December 2020.

Asit Kumar Khanra, Teaching Materials Science & Engineering with Innovative Analogy, NIT Rourkella, 2 November 2020.

R Arockia Kumar, Surface Composites by Friction Stir Processing for Functional Applications, Department of Mechanical Engineering, Karunya Institute of Science and Technology and Sciences, 30 May 2020.

G Brahma Raju, High Temperature Materials, Rajkiya Engineering College Banda, India, 21 September 2020.

Uma M. Rao Seelam, Scanning Electron Microscopy, NIT Andhra Pradesh, 19 October 2020.

Uma M. Rao Seelam, Careers in Metallurgical Engineering, RGUKT (IIIT), RK Valley, Idupulapaya, Andhra Pradesh, 7 November 2020.

Uma M. Rao Seelam, Universal Human Values: Understanding Human Being, RGUKT (IIIT), Nuzvid & Srikakulam, Andhra Pradesh, 16 December 2020.

New lab established/ Equipment and Software procured

Welding Laboratory: Dr. Mahesh and Dr. Kishore

Linear Welder: 3,67,500

Manual Welding (2): 1,18,455

MIG Welding: 2,97,582

TIG Welding: 6,40,185

Total: 14,23,722 **Awards/ Recognitions/ Achievements**

G. Brahma Raju: Reviewer Excellence and Appreciation Certificate, Transactions of IIM (Journal), 2020.

G. Brahma Raju and team received IIM Best Non-Ferrous Paper Medal.

G. Brahma Raju and team's research paper was selected as Editor's Choice article for2020 from Metallography, Microstructure, and Analysis (ASM International Journal)

G. V. S. Nageswara Rao and team's research paper was selected as Editor's Choice article for 2020 from Metallography, Microstructure, and Analysis (ASM International Journal)

PhD Research guidance

K.N.B. Kumar (Roll No. 701251) completed his Ph. D with title "Structure-property correlation on similar and dissimilar friction stir welded magnesium-based alloys" under the guidance of **C.Vanitha**, April, 2021

Shak Mubina (Roll No. 716157) completed her Ph. D with title "Processing and Properties Evaluation of CNFs dispersed SiC based Composites" under the guidance of **Asit Kumar Khanra** & B. P Saha, July, 2021.

Shaik Mahammad Ali (Roll No. 715054) completed his Ph. D with title "Processing and properties of Cu-Al and Cu-ZrB2 materials developed via powder metallurgy" under the guidance of **Brahma Raju Golla**, December, 2020

Shivkumar Khaple (Roll No. 714143) completed his Ph. D with title "Effect of alloying additions on the microstructure and mechanical properties of Fe-Al based lightweight steel" under the guidance of **Brahma Raju Golla** and Dr. V.V. Satya Prasad, July, 2021

Bheekya Naik R (Roll No. 714028) completed his Ph. D with title "Development of HSHC copper alloys through friction stir processing" under the guidance of **R Arockia Kumar**, July, 2020

Naga Sruthi Neelam (Roll No. 701627) completed her Ph. D with title "Influence of Alloying Additions on Solidification, Phase Transformation, Mechanical and Oxidation behaviour of Ti-46.5Al-xNb-yCr-zMo-0.3B g-TiAl Alloys" under the guidance of **GVS Nageswara Rao** & Amit Bhattacharjee, March, 2020

Prakash (Roll No. 715053) completed his Ph. D with title "Influence of thermomechanical treatment on microstructure, mechanical and creep rupture behaviour of reduced activation ferritic-martensitic steel" under the guidance of **GVS Nageswara Rao**, June, 2020

Distinguished guests visited the department

S. No	Webinar Title	Invited Guest and Organisation	Date
1	Is placement the only thing that matters in engineering?	Shri Rinkesh Gorasia, Founder, Upskill India	21 November 2021
2.	Next generation solar cells: Materials and Methods	Dr. Easwaramoorthi Ramasamy, Scientist E, ARCI Hyderabad	17 August 2021
3.	Role of Material science and engineering in nanoelectronics	Dr. Gautam Gaddemane, Post-doc researcher, IMEC, Belgium.	26 march 2021
4	Advanced Structural and thermostructural ceramics its composites for future energy applications	Dr. T.S.R. Ch. Murthy, BARC, Mumbai.	9 March 2021
5	Imaging, synchrotron imaging techniques and ptychography	Dr. Venkata Sree Charan Kuppili, Associate Scientist, SM beamline, Saskatchewan, canada.	1 April 2021
6	Aluminium- from Mine to metal	Shri R N Chouhan, and Shri V K Jha, JNARDDC Nagpur	16 April 2021
7	Career prospects in Neuromorphic computing and Artificial Intelligence hardware	Dr. Bhagwati Prasad, Principal Research Scientist, Western	1 March 2021

	technologies	Digital, USA	
8	Plasmonic nanoparticles for biodiagnostics in resource limited settings	Dr Sirimuvva Tadepalli, Post-doc, Stanford University, USA	2 December 2020
9	High entropy alloys for high temperature applications	Dr. Rajesh Korla, IIT Hyderabad	17 March 2021

Best student papers and other achievements

- Saurabh Kumar Pandey and Srest Somay "Numerical Analysis of rGO/silver nanowire based single crystal perovskite solar cell"IEEE TRANSACTIONS ON ELECTRON DEVICES, 2020. DOI: 10.1109/TED.2020.3014272.
- Saurabh Kumar Pandey and Srest Somay "Device Engineering Approach Toward Stable, Efficient, andEco-Friendly Perovskite Solar Cell"IEEE TRANSACTIONS ON ELECTRON DEVICES, 2020.DOI:10.1109/TED.2020.3047879.
- Sai Deepak Kumar Ayyalasomayajula, Mohammad Fayaz Anwar, Esari Vara Prasad, Pedada Bharath Sreevatsava and C Vanitha, Effect of temperature and load during hot impression creep of Cu-Zn-Al alloy, Materials Today: Proceedings, Article in press, Volume 39, Part 4, 2021, Pages 1296-1302.
- Premkumar Manda, Antim Rewapati,C. Vanitha &A.K. Singh, structure - property - processing correlations in metastable beta titanium alloys Ti-10V-2Fe-3Al and Ti5Al-5Mo-5V-3Cr, Advances in Materials and Processing Technologies, July 2021
- B Rishik Bharadwaj (185105) received OPJEMS fellowship in November 2020
- Srest Somay (185146) received an Indian Academy of Science Fellowship to conduct research at IIT Hyderabad.
- Tanuja Gollangi (185150) received Institute Merit Scholarship in AY2020-21 awarded by NITW.
- B RISHIK BHARADWAJ(185105), Rahul Kuamr Agrawal (185140) and Srest Somay (185146) were selected under special exchange program to do their final year UG at IIT Delhi as per the MoU between IITD and NITW.
- Rahul Agrawal(185140) received Institute Merit Scholarship in AY 2021-21.

Details of students joined in higher educational institutes

Chintada Chandrasekhar, M. Tech., Joined Ph.D. program (branch) at Indian Institute of Technology Roorkee

B.Tech. (Metallurgical and Materials Engineering) Batch: 2017-2021

S.No.	Roll No	Name of the Student	Currently as
1	175114	D Rahul Kumar	PhD (IIT-Delhi)
2	175126	Sravya Mareedu	M.S. University of Texas, USA

3	175111	Bristi Panja	M.S. Tufts University USA
4	175122	Kodam Abhigna	PhD (IIT-Delhi)
5	175138	Rafshan Ul Atik	MTech (IIT-Madras)

M.Tech. (Industrial Metallurgy) **Batch: 2019-2021**

S.No.	Roll No	Name of the Student	Currently as
1	195551	Abhishek Panda	Development Officer in LIC
2	195558	Shiv Singh	PGET in MKU
3	195559	Shivasaikumar Sirpathi	Searching for job
4	195562	Balakrishna Thotakura	PGET in Crusoe Technologies
5	195564	Sheshivardhan varimadla	AI engineer in Burntec
6	195565	Vishal Shambu	JRF in ARCI
7	195611	Prasad Matre	Senior Solution Design Engineering at Armstrong Automation

M.Tech. (Materials Technology) **Batch: 2019-2021**

S.No.	Roll No.	Name of the Student	Currently as
1	195501	Ajay V	PhD (IIT-Bombay)
2	195505	Gaddam Kranthikumar	PhD (IIT-Roorkee)

3	195510	Matam Hemanth	Vegro Foods (Food export company)
4	195511	Matre Prasad Nivrutti	Armstrong
5	195513	Rajneesh Singh	Valera
6	195514	Ritesh Kumar Singh	Software developer in Surya Developer
7	195515	Sai Rakesh Kandagatla	R&D engineer in Objectify
8	195516	Vaibhav Vilas Burde	Software Engineer in Amazon

Department Outreach Activities

- Review of research papers
- Review of PhD thesis
- Delivered invited lectures
- Attended Board of Study meetings

Department Association/Students Clubs Activities

- Guest Lecture arranged: USA -02, Belgium-01, Korea-01, India-06
- Placement Marathon
- Fresher's welcome for Juniors
- Farewell for outgoing students
- Talk with T&P Coordinator
- Talk with people placed in core, non core & software

Summary

S.No.	Activity	Number
1	**Publications (Peer Reviewed Journals/ conferences)(SCOPUS/SCI)**	
	International Journals	30
	National Journals	-
	International Conferences	-
	National Conferences	-
2	**Funded Research Projects/SPARC projects (2020-21)**	
	Completed Projects	7
	AUSC, DST, SERB	Rs. 2425.09 Lk
	Ongoing Projects (Rs 1.61 Crores)	4
	IMPRINT PROJECTS	-
	FIST PROJECT	-
	BRICS project	-
	AUSC, DST, SERB, ARDB-DRDO	11
3	**SPARC Project Workshops**	**-**
4	**Consultancy Works (2019-20)**	**-**
5	**Patents**	**-**
	Awarded	-
	Filed	-
6	**Books and Book Chapters**	**-**

	Books	-
	Book Chapters	-
7	**Conferences/ Workshops/GIAN courses/FDPs Conducted**	***1***
8	**Guest talks/ Webinars delivered**	***7***
9	**New Labs Established (Equipment/Software Procured)**	***Rs. 14.23 Lk***
10	**Awards/Recognitions/Achievements**	***4***
11	**Research Guidance (Completed in 2019-20)**	***7***
12	**International Visits of the Faculty Members/ students**	***-***
13	**Students Achievements**	
	Placements	
	B.Tech	71%
	MTech	11%
	Higher Education (M.Tech, PhD at IITs & Abroad)	12%
	Lab Development Activities	1
	Conference visits	-
14	**Metallurgical and Materials Engineering Association Activities**	***9***
15	**Distinguished Guests visiting the Department/Delivering Expert Lecture/Keynote Address**	***-***
16	**Outreach Programmes**	***4***

DEPARTMENT OF CHEMICAL ENGINEERING

Major Milestones

- 2018-Moved to new building (Plinth Area: ~ 8000 m^2)
- 2016-M.Tech Process Control Started
- 2015 – B. Tech & M. Tech Chemical Engg. accredited for 5 years
- 2014 –Golden Jubilee
- QIP Centre for PhD
- 1968- M. Tech program started
- 1964- Started with 5 year B.Tech Program



Programme	Number of Students
PhD	29
M.Tech (Chemical Engineering)	22 (I-Year) + 20(II-Year)
M.Tech (Systems & Control Engineering)	17 (I-Year) + 16(II-Year)
B.Tech (Chemical Engineering)	119 (II - Year) + 135 (III - Year) + 102 (IV - Year)

Thrust Research Areas

Fuel cells	Waste water treatment	Nano catalysis	Process control
Li-ion Batteries	CO_2 Capture and Storage	Nanofluids	Process Modelling & Simulation
Super capacitors	E-waste management	Micro reactors	Computational Fluid Dynamics
Flow batteries	Natural gas purification	Cavitation	Molecular Modelling & Simulation
Membrane Separation	Bio Chemical Engineering	Process Intensification	
	Pharmaceuticals	Thermoset composites	

Faculty Details

S. No.	Name of the Faculty Member and Designation	Highest Qualification	Research Interests	Photograph
1.	**Prof. Shirish H. Sonawane** **Professor**	Ph.D.	Fluidized beds, Biochemical Engg., Microbial fuel cells	
2.	**Prof. A. Venu Vinod** **Professor**	Ph.D.	Fluidized beds, Bioreactors, Heat transfer, Nanofluids	
3.	**Prof. Sarath Babu Anne** **Professor**	Ph.D.	Modelling and Simulation, Reaction Engg. , CO_2 Capture and Utilization	
4.	**Prof. Anand Kishore. K** **Professor**	Ph.D.	Biochemical Engg. Modelling and Simulation	
5.	**Dr. K. Srivani** **Associate Professor**	Ph.D.	Biochemical Engineering	

6.	**Dr. S. Srinath** **Associate Professor & Head**	Ph.D.	Thermochemical conversion, Process Intensification , Catalysis, Bio fuels , Process Modelling and simulation	
7.	**Dr. A. Seshagiri Rao** **Associate Professor**	Ph.D.	Process Control, Wastewater treatment	
8.	**Dr. P.V. Suresh** **Associate Professor**	Ph.D.	Fuel Cells, CO_2 Capture and Utilization, CFD, Chemical looping Combustion.	
9.	**Dr. S. Vidyasagar** **Associate Professor**	Ph.D.	Sustainable Energy Technologies, Modelling and Simulation	
10.	**Dr. S. Murali Mohan** **Assistant Professor**	Ph.D.	Flow Batteries, Fuel cells and Membrane Separations	
11.	**Dr. G. Uday Bhaskar Babu** **Assistant Professor**	Ph.D.	Modelling and Simulation, Energy Integration, Process Control	

12	**Dr. V. Ram Sagar** **Assistant Professor**	Ph.D.	Process Scheduling, Chemical Looping Combustion	
13.	**Dr. Raghu Raja Pandiyan** **Assistant Professor**	Ph.D.	Thermoset Composites, Process Modelling and Simulation	
14.	**Dr. K.S. Rajmohan** **Assistant Professor**	Ph.D.	Nanocatalysis, Fuel cells and Batteries, Bio refineries	
15.	**Dr. Manohar Kakunuri** **Assistant Professor**	Ph.D.	Synthesis of carbon Nanomaterials, Li-ion batteries	
16.	**Dr. Praveen K. Bommineni** **Assistant Professor**	Ph.D.	Molecular Dynamics and Simulations	
17.	**Dr. Ramya Araga** **Assistant Professor**	Ph.D.	Synthesis of Nanomaterials, Wastewater Treatment	

18.	**Dr. Anjana PA** **Assistant Professor**	Ph.D.	Catalysis, Energy and Environmental Applications	
19.	**Dr. P. Sampath Kumar** **Assistant Professor**	Ph.D.	Energy Storage and Conversion Devices, Scale up of Nanomaterials	
20.	**Dr. Naresh Thota** **Assistant Professor**	Ph.D.	Molecular Dynamics and Simulation for Energy, Environmental and Healthcare Applications	
21.	**Dr. Kishant Kumar** **Assistant Professor**	Ph.D.	Molecular Dynamics, Monte Carlo Simulation	
22.	**Prof.Y. Pydi Setty** **Visiting Professor**	Ph.D.	Fluidized beds, Biochemical Engg., Microbial fuel cells	

Journal Publications

Heidari, Mohammad Reza, Mohammad Malakootian, Grzegorz Boczkaj, Xun Sun, Yang Tao, **Shirish H. Sonawane**, and Hakimeh Mehdizadeh. "Evaluation and start-up of an electro-Fenton-sequencing batch reactor for dairy wastewater treatment." *Water Resources and Industry* 25 (2021): 100149.

Landge, V. K., **S. H. Sonawane**, M. Sivakumar, S. S. Sonawane, **G. Uday Bhaskar Babu**, and Grzegorz Boczkaj. "S-scheme heterojunction Bi2O3-ZnO/Bentonite clay composite with enhanced photocatalytic performance." *Sustainable Energy Technologies and Assessments* 45 (2021): 101194.

Landge, Vividha K., **Shirish H. Sonawane**, Sivakumar Manickam, **G. Uday Bhaskar Babu**, and Grzegorz Boczkaj. "Ultrasound-assisted wet-impregnation of Ag-Co nanoparticles on cellulose nanofibers: Enhanced catalytic hydrogenation of 4-nitrophenol." *Journal of Environmental Chemical Engineering* (2021): 105719.

Adsul, Swapnil H., Uday D. Bagale, **Shirish H. Sonawane**, and R. Subasri. "Release rate kinetics of corrosion inhibitor loaded halloysite nanotube-based anticorrosion coatings on magnesium alloy AZ91D." *Journal of Magnesium and Alloys* 9, no. 1 (2021): 202-215.

Pandi, Narsimha, **Shirish H. Sonawane**, **Anand Kishore Kola**, Ujwal Kishor Zore, Pramod H. Borse, Swapnil B. Ambade, and Muthupandian Ashokkumar. "Halloysite nanotubes-based supercapacitor: Preparation using sonochemical approach and its electrochemical performance." *Energy, Ecology and Environment* 6, no. 1 (2021): 13-25.

Hakke, Vikas, **Shirish Sonawane**, Sambandam Anandan, Shriram Sonawane, and Muthupandian Ashokkumar. "Process intensification approach using microreactors for synthesizing nanomaterials—A critical review." *Nanomaterials* 11, no. 1 (2021): 98.

Devadasu, Sushmitha, **Shirish Hari Sonawane**, **and Srinath Suranani**. "Self-healing corrosion inhibition coatings with pH-responsive activity by incorporation of nano cellulose in two-pack epoxy polyamide system." *Materials Today: Proceedings* 46 (2021): 5544-5549.

Devadasu, Sushmitha, Uday Bagale, **Shirish Hari Sonawane, and Srinath Suranani**. "Development of ultra-high build self-healing coatings using amino silanized lignin nanocapsules." *Materials Today: Proceedings* (2021).

Chirra, Suman, Raju Kalakuntala, Suresh Siliveri, Srinath Goskula, Sripal Reddy Gujjula, D. Naresh Yadav, Venkata Ramesh Babu Gurram, **S. Srinath**, and N. Venkatathri. "Synthesis of a novel bifunctionalmesoporous Ti-SBA-15-SO3H catalyst and studies on their enhanced performance and kinetic modeling of lactic acid esterification reaction with n-butanol." *Materials Today: Proceedings* 45 (2021): 3699-3708.

Pandi, Narsimha, **Shirish H. Sonawane, and K. Anand Kishore**. "Synthesis of cellulose nanocrystals (CNCs) from cotton using ultrasound-assisted acid hydrolysis." *Ultrasonics sonochemistry* 70 (2021): 105353.

Landge, Vividha K., **Shirish H. Sonawane,** Raghunath V. Chaudhari, and **G. Uday B. Babu.** "Selective Oxidation of Glycerol: A Biomass-Derived Feedstock Using the Pt–Cu Janus Catalyst for Value-Added Products." *Industrial & Engineering Chemistry Research* 60, no. 1 (2020): 185-195.

Potdar, Shital B., B. V. S. Praveen, and **Shirish H. Sonawane**. "Sonochemical approach for synthesis of zinc oxide-poly methyl methacrylate hybrid nanoparticles and its application in corrosion inhibition." *Ultrasonics Sonochemistry* 68 (2020): 105200.

Patil, Govind K., Pritam B. Patil, Sagar R. Pardeshi, Rahul L. Rajput, **Shirish H. Sonawane**, Arun Mujumdar, and Jitendra B. Naik. "Effect of process parameters on the recovery of lactose in an antisolvent acetone/acetone-ethanol mixture: A comparative study based on sonication medium." *Ultrasonics sonochemistry* 67 (2020): 105128.

Yashawantha, Kyathanahalli Marigowda, and **A. Venu Vinod**. "ANFIS modelling of effective thermal conductivity of ethylene glycol and water nanofluids for low temperature heat

transfer application." *Thermal Science and Engineering Progress* 24 (2021): 100936.
Yashawantha, Kyathanahalli Marigowda, Gaurav Gurjar, and **A. Venu Vinod.** "Low Temperature Heat Transfer in Plate Heat Exchanger Using Ethylene Glycol–Water Based Al_2O_3 Nanofluid." *International Journal of Thermophysics* 42, no. 6 (2021): 1-30.
Srinivas, T., and **A. Venu Vinod**. "Natural convection heat transfer using water-based nanofluid in a shell and helical coil heat exchanger." *Chemical Papers* 75, no. 6 (2021): 2407-2416.
Donkadokula, Naresh Yadav, **Anand Kishore Kola**, Iffat Naz, and Devendra Saroj. "A review on advanced physico-chemical and biological textile dye wastewater treatment techniques." *Reviews in environmentalscience and bio/technology* (2020): 1-18.
Upender, H., **K. Anand Kishore**, T. Srinivas, S. Mishara, and P. Suresh Kumar. "EFFECT OF RESTITUTION COEFFICIENT IN CFD SIMULATION OF SOLID-LIQUID TAPERED INVERSE FLUIDIZED-BEDHYDRODYNAMICS." *Palarch's Journal of Archaeology of Egypt/Egyptology* 17, no. 9 (2020): 4118-4136.
Donkadokula, Naresh Yadav, Iffat Naz, **Anand Kishore Kola**, and Devendra Saroj. "Assessment of the aerobic glass beads fixed biofilm reactor (GBs-FBR) for the treatment of simulated methylene blue wastewater." *Scientific Reports* 10, no. 1 (2020): 1-14.
Tejaswini, E. S. S., **G. Uday Bhaskar Babu, and A. Seshagiri Rao.** "Design and evaluation of advanced automatic control strategies in a total nitrogen removal activated sludge plant." *Water and Environment Journal* 35, no. 2 (2021): 791-806.
Maruthi Prasad, G., and **A. Seshagiri Rao**. "Multi-model cascade control strategy design based on gap metric for nonlinear processes." *Indian Chemical Engineer* (2020): 1-14.
Panjwani, Soniya, E. S. S. Tejaswini, and **A. Seshagiri Rao**. "Fractional Order Model-Based Design of Controllers for Improved Operation of Wastewater Treatment Plants." *Transactions of the Indian National Academy of Engineering* 5, no. 4 (2020): 719-726.
Bhaskaran, Anil, and **A. Seshagiri Rao**. "Enhanced predictive control strategy for unstable parallel cascade processes with time delay." *Chemical Engineering Communications* (2020): 1-16.
Tejaswini, E. S. S., Soniya Panjwani, and **A. Seshagiri Rao**. "Design of hierarchical control strategies for biological wastewater treatment plants to reduce operational costs." *Chemical Engineering Research and Design* 161 (2020): 197-205.
Prasad, G. Maruthi, Vatsal Kedia, and **A. Seshagiri Rao**. "Multi-Model Predictive Control (MMPC) for Non-linear Systems with Time Delay: An Experimental Investigation." In *2020 First IEEE International Conference on Measurement, Instrumentation, Control and Automation (ICMICA)*, pp. 1-5. IEEE, 2020.
Siva, Mullapudi, Snehal Meshram, Dipesh S. Patle, and **Uday Bhaskar Babu Gara**. "Model based control strategies to control voltage of Proton Exchange Membrane Fuel Cell." *Chemical Product and Process Modeling* (2020).
Shrikhande, Savyasachi, **G. Uday Bhaskar Babu**, Z. Ahmad, and Dipesh S. Patle. "Intensification and analysis of ethyl levulinate production process having a reactive distillation through vapor recompression and bottom flash techniques." *Chemical Engineering and Processing-Process Intensification* 156 (2020): 108081.
Sharma, Shubhanshu, and **G. Uday Bhaskar Babu**. "A new control strategy for a higher order proton exchange membrane fuel cell system." *International Journal of Hydrogen Energy* 45, no. 48 (2020): 25945-25959.

Ranganayakulu, Rayalla, **Ambati Seshagiri Rao**, and **Gara Uday Bhaskar Babu**. "Analytical design of fractional IMC filter–PID control strategy for performanceenhancement of cascade control systems." *International Journal of Systems Science* 51, no. 10 (2020): 1699-1713.
Chiluka, Suresh Kumar, **Seshagiri Rao Ambati, Muralimohan Seepana, and Uday Bhaskar Babu Gara.** "A New VRFT Approach for IMC-PID Feedback-Feedforward Controller Design based on Robustness." *IFAC-PapersOnLine* 53, no. 1 (2020): 147-152.
Tejaswini, E. S. S., Soniya Panjwani, **G. Uday Bhaskar Babu, and A. Seshagiri Rao**.

"Model Based Control of a Full-Scale Biological Wastewater Treatment Plant." *IFAC-PapersOnLine* 53, no. 1 (2020): 208-213.

Shiek, Abdul Gaffar, VS Raghu Kumar Machavolu, **Murali Mohan Seepana, and Seshagiri Rao Ambati.** "Design of control strategies for nutrient removal in a biological wastewater treatment process." *Environmental Science and Pollution Research* 28 (2021): 12092-12106.

Sheik, Abdul Gaffar, **Murali Mohan Seepana, and Seshagiri Rao Ambati**. "Supervisory control configurations design for nitrogen and phosphorus removal in wastewater treatment plants." *Water Environment Research* (2021).

Chiluka, Suresh Kumar, **Seshagiri Rao Ambati, Murali Mohan Seepana, and Uday Bhaskar Babu Gara.** "A novel robust Virtual Reference Feedback Tuning approach for minimum and non-minimum phase systems." *ISA transactions* (2021).

Abdulla, Sheikh, **Murali Mohan Seepana, and Venkata Suresh Patnaikuni**. "Performance Comparison of PEM Fuel Cell with Enhanced Cross-Flow Split Serpentine and Single Serpentine Flow Field Designs." *Arabian Journal for Science and Engineering* 45, no. 9 (2020): 7691-7703.

Surywanshi, Gajanan Dattarao, **Venkata Suresh Patnaikuni, Ramsagar Vooradi, and Sarath Babu Anne.** "4-E and life cycle analyses of a supercritical coal direct chemical looping combustion power plant withhydrogen and power co-generation." *Energy* 217 (2021): 119418.

Zade, Anita, Pakala Shyamprasad, and **Raghu Raja Pandiyan Kuppusamy**. "Finite element modelling of non-isothermal curing kinetics for resin transfer moulding process." *Materials Today: Proceedings* (2021).

Kuppusamy, Raghu Raja Pandiyan, Anita Zade, and Kaushik Kumar. "Time-temperature-cure process window of epoxy-vinyl ester resin for applications in liquid composite moulding processes." *Materials Today: Proceedings* 39 (2021): 1407-1411.

Anand, Shreya, **Raghu Raja Pandiyan Kuppusamy**, and Padmini Padmanabhan. "Insight into the kinetically and thermodynamically controlled biosynthesis of silver nanoparticles." *IET nanobiotechnology* 14, no. 9 (2020): 864-869.

Anantharaman, Anjana P., and Hari Prasad Dasari. "Potential of pyrochlore structure materials in solid oxide fuel cell applications." *Ceramics International* 47, no. 4 (2021): 4367-4388.

Roy, Projesh Kumar, **Kishant Kumar,** Foram M. Thakkar, Amar Deep Pathak, K. Ganapathy Ayappa, and Prabal K. Maiti. "Investigations on 6FDA/BPDA-DAM polymer melt properties and CO2 adsorption using molecular dynamics simulations." *Journal of Membrane Science* 613 (2020): 118377.

Rath, Soumya Lipsa, and **Kishant Kumar.** "Investigation of the effect of temperature on the structure of SARS-Cov-2 Spike Protein by Molecular Dynamics Simulations." *Frontiers in molecular biosciences* 7 (2020).

Funded Research Projects

Ongoing Projects

Dr Shirish Sonawane and **Dr. Perugu Shyam** Demonstration of Technology for treatment of rain harvested water lakes in Warangal Telangana State, DST WTI, 2021-24, 44.41 Lakhs.

Dr Shirish Sonawane and Dr. Murali Mohan Seepana,Development and Demonstration of Pilot-scale Hybrid Wastewater Treatment System with Hydrodynamic Cavitation and Biosurfactantfor Recycling of Textile Effluent, IMPRINT SERB, 2019-22, 41.42 Lakhs.

Dr Shirish Sonawane, Process Development for the production of Janus Nanoparticles for selected catalytic reactions, SERB DST, 2018-21, GOI. 20.87 Lakhs.

Dr. G Uday Bhaskar Babu, Identification and Control strategies for improvement of Proton Exchange Membrane (PEM) Fuel Cell, SERB,DST, EEQ/2018/000993 dated 26-02-2019, Rs. 17.1 Lakhs.

Dr. A. Seshagiri Rao, Low cost innovative technology for water quality monitoring and water resources management for urban and rural water systems in India, (LOTUS) Indo-European Horizon 2020 project.

Dr. A. Seshagiri Rao, Duo-India grant to visit The Autonomous University of Barcelona (UAB), Spain and work on Machine learning based control for wastewater treatment plants, Euro 3000, 2020.

Dr. Manohar Kakunuri, Activated Graphene/Carbon composite nanofibers as high performance anode material for sodium ion battery, SERB, No. SB/OS/PDF-040/2016-17, Dt. 15/02/2018, 25.6 lakhs.

Dr. Murali Mohan Seepana, Development and Demonstration of Hydrogen Redox Flow Battery using Non-Precious Electrocatalysts SPARC 2019-2021, Rs.43.17 Lakhs.

Dr Srinath, Dr Shirish, Dr Kishant and Dr P. Rathish Kumar (Civil Eng.), Effective Management of Process Slag from PCB smelting, C-MET Hyderabad. Dated 05-05-2021, Rs. 10 Lakhs

Dr. Murali Mohan Seepana, Tackling textile pollution using a 3D printed hybrid process, The Royal Society, UK, IES\R1\201244 dated 30-03-2021, Rs.12.36 Lakhs.

Dr. Anand Kishore Kola, Low-cost Biodegradable Polymer for Application in Food Packaging" SERB, GoI, 2021, 25.5 Lakhs.

Dr. Kishant Kumar, Green Solvents for Recycling Cathodes of Spent Li-Ion Batteries, SERB, GoI, 2021, 25.16 Lakhs.

Dr Shirish Sonawane, Development of process for the synthesis of cellulose nanocrystals from MCC, Tevoren Technologies LLP, 2021, Rs.3.30 Lakhs.

Dr Shirish Sonawane and **Dr S. Srinath**, Cavitation based dispersion of Boron nanoparticles into JP10 Fuel, GTRE DRDO, 2019-21, Rs. 9.95 Lakhs.

Completed Projects

Dr Shirish Sonawane, Ultrasonic encapsulation of bioactive compounds to deliver in the food matrix, Indo-Russia DST-RFBR, 2018-20, Rs. 16 Lakhs.

Dr. A. Venu Vinod, Heat Transfer Enhancement in Plate-Fin Exchanger using Nanorefrigerants, Aeronautics Research & development Board(ARDB), 2017, Rs. 31 Lakhs.

Dr. Raghu Raja Pandiyan Kuppusamy, Development of One-Shot Integrated Thick Sectioned Composite Parts using Semi-Cured Composite Laminates, SERB/F/4360/2017-2018 dated- 04/08/2017 EMR Scheme, SERB, DST 27.84 lakhs.

Dr. Nagasrinivasulu, **Dr. P. V. Suresh**, Dr. S. Sreenivasarao, Design and Development of Passive Direct Methanol Fuel Cell integrated with Liquid Electrolyte for Portable Power Applications, SERB, EMR/2016/003015 dated 24-03-2017, Rs. 19.46 Lakhs.

Dr. Soumya LipsaRath, **Dr. Kishant Kumar,** https://covid19-hpc-consortium.org/projects Department of energy, Lawrence Berkeley National Laboratory, USA.

S. No.	Title	Total Amount sanctioned	Funding agency and Project No.	Instalment 1,2018-2019	Installment 2, 2019-2020	Installment 3, 2020-2021
1	Development and Demonstration of Pilot-scale Hybrid Wastewater Treatment System with Hydrodynamic Cavitation and Bio surfactant for Recycling of	Rs. 41.42 Lakhs	IMP/2019/000004, dated 16 December 2019		15,73,000/-(I Installment on 16th Dec, 2019)	

	Textile Effluent					
2	Process Development for the production of Janus Nanoparticles for selected catalytic reactions	Rs. 20.87 Lakhs	SERB DST, 2018-21 , EMR/2016/007585	9,62,546/- 15th March , 2018	5,50,000/- 4th June, 2019	5,00,000/- 14th Jan, 2021
3	Identification and Control strategies for improvement of Proton Exchange Membrane (PEM) Fuel Cell	Rs. 17.1 Lakhs	SERB,DSTEEQ/ 2018/000993 dated 26-02-2019			
4	Low cost innovative technology for water quality monitoring and water resources management for urban and rural water systems in India	-	Indo-European Horizon 2020 project			
5	Machine learning based control for wastewater treatment plants	Euro 3000	Duo-India grant to visit The Autonomous University of Barcelona (UAB), Spain			
6	Fabrication of carbon soot based reusable and robust nanofiber membranes for effective oil-water separation	Rs. 27.08 Lakhs	SERB, No. SB/OS/PDF040/ 2016-17, Dt. 15/02/2018.	Rs. 20,03 ,400/-	Rs. 2,10,110/-	Rs. 2,87,000/-
7	Development and Demonstration of Hydrogen Redox Flow Battery using Non-Precious Electrocatalysts SPARC 2019-2021, Rs.43.17 Lakhs.	Rs.43. 17 Lakhs .	SPARC 2019-2021,	Rs. 80000 0/-	-	-
8	Effective Management of Process Slag from PCB smelting.	Rs. 10 Lakhs	C-MET Hyderabad. Dated 05-05-2021,			
9	Tackling textile	Rs.12.	The Royal	-	-	

	1pollution using a 3D printed hybrid process,	36 Lakhs	Society, UK, IES\R1\201244 dated 30-03-2021.			
10.	Low-cost Biodegradable Polymer for Application in Food Packaging"	Rs. 23.414 Lakhs.	SERB, GoI, 2021,			Rs. 14,72,960/-
11	Green Solvents for Recycling Cathodes of Spent Li-Ion Batteries,	Rs. 26.76989 Lakhs.	SERB, GoI, 2021,			Rs. 18.55989 Lakhs
12	Development of process for the synthesis of cellulose nanocrystals from MCC, Tevoren Technologies LLP, 2021.	Rs.3.30 Lakhs.	Tevoren Technologies LLP, 2021,	Rs.50000/-		
13	Cavitation based dispersion of Boron nanoparticles into JP10 Fuel.	Rs. 9.95 Lakhs.	GTRE/MMG/BMR/1046/19/CARS/A/19, dated 13th June, 2019	5,00,000/- 3rd Aug 2019	2,70,000/- 23rd Aug 2021	
14	Ultrasonic encapsulation of bioactive compounds to deliver in the food matrix.	Rs. 16 Lakhs	Indo-Russia DST-/INT/RUS/RFBR/P-324, 2018-20,	7,85,160/- 4th Oct, 2018		
15	Heat Transfer Enhancement in Plate-Fin Exchanger using Nano refrigerants,	Rs. 31 Lakhs.	Aeronautics R & D Board(ARDB), 2017			
16	Development of One-Shot Integrated Thick Sectioned Composite Parts using Semi-Cured Composite Laminates,	27.84 lakhs.	SERB/F/4360/2017-2018 dated-04/08/2017 EMR Scheme, SERB, DST			
17	Design and Development of Passive Direct Methanol Fuel Cell integrated with Liquid Electrolyte	Rs. 19.46 Lakhs.	SERB, EMR/2016/003015 dated 24-03-2017,			

	for Portable Power Applications,					
	Covid 19		https://covid19-hpc-consortium.org/projects Department of energy, Lawrence Berkeley National Laboratory, USA.			
18	Demonstration of Technology for treatment of rain harvested water lakes in Warangal Telangana State	Rs. 44.41 lakhs	DST/TMD/EWO/WTI/2K19/EWFH/2019/111(G), dated 04 February 2021		14,15,421/- (I Instalment 11th February 2021)	

Patents (Filed, Published, Granted and Licensed)

Published

Shirish H. Sonawne, Vikas Hakke, Narsimha. P, P. Dilip Kumar, Bhaskar Bethi, Low cost hybrid system based on hydrodynamic cavitation and hydrogel adsorption for textile dye wast. Application No.202141007302A, Publication Date : 26/02/2021

Granted

Prof Shirish H. Sonawane, "PROCESS FOR PRODUCTION OF NANO SIZE IRON OXIDE PIGMENT" patent no.354749. (Awarded, year: 2021)

Books and Book Chapters

Bhanvase, Bharat A., **Shirish Sonawane**, Vijay B. Pawade, and Aniruddha B. Pandit, eds. *Handbook of Nanomaterials for Wastewater Treatment: Fundamentals and Scale up Issues*. Elsevier, 2021.

Sonawane, Gunvant H., Prakash K. Labhane, and **Shirish H. Sonawane**. "New graphene-based nanocomposite for photocatalysis." In *Handbook of Nanomaterials for Wastewater Treatment*, pp. 181-207. Elsevier, 2021.

Sonawane, Shriram, Parag Thakur, **Shirish H. Sonawane**, and Bharat A. Bhanvase. "Nanomaterials for membrane synthesis: Introduction, mechanism, and challenges for wastewater treatment." In *Handbook of Nanomaterials for Wastewater Treatment*, pp. 537-553. Elsevier, 2021.

Bethi, Bhaskar, **Shirish H. Sonawane**, Bharat A. Bhanvase, and Jaykumar B. Bhasarkar. "Introduction to nanomaterials for wastewater treatment." In *Handbook of Nanomaterials for Wastewater Treatment*, pp. 3-25. Elsevier, 2021.

Bhavsar, Nikhil D., Divya P. Barai, Bharat A. Bhanvase, and **Shirish H. Sonawane**. "Nanomaterials for treatment of air pollutants." In *Handbook of Nanomaterials for Wastewater Treatment*, pp. 313-339. Elsevier, 2021.

Bhanvase, Bharat A., V. B. Pawade, **Shirish H. Sonawane**, and A. B. Pandit. "Nanomaterials for wastewater treatment: Concluding remarks." In *Handbook of Nanomaterials for Wastewater Treatment*, pp. 1125-1157. Elsevier, 2021.

Ghodke, Shailesh A., Utkarsh Maheshwari, Suresh Gupta, **Shirish H. Sonawane**, and Bharat A. Bhanvase. "Nanomaterials for adsorption of pollutants and heavy metals: Introduction, mechanism, and challenges." In *Handbook of Nanomaterials for Wastewater Treatment*, pp. 343-366. Elsevier, 2021.

Borgaonkar, Avinash V., Ismail Syed, and **Shirish H. Sonawane**. "Effects of Lubrication on Tribological Properties of Composite MoS

2-TiO 2 Coating Material." In *Tribological Applications of Composite Materials*, pp. 267-281. Springer, Singapore, 2021.

Hakke, Vikas S., **Murali Mohan Seepana, Shirish H. Sonawane, Anand Kishore Kola, and Ramsagar Vooradi.** "Hybrid treatment technologies for the treatment of industrial wastewater." In *Water Pollution and Remediation: Heavy Metals*, pp. 211-241. Springer, Cham, 2021.

Hakke, Vikas S., **Shirish H. Sonawane**, Dipak Pinjari, S. Manigandan, and Shriram Sonawane. "Self-healing polymeric coating for corrosion inhibition and fatigue repair." In *Self-Healing Polymer-Based Systems*, pp. 473-493. Elsevier, 2020.

Yashawantha, Kyathanahalli Marigowda, Gaurav Gurjar, and **A. Venu Vinod.** "Stability and Thermal Conductivity of Ethylene Glycol and Water Nanofluid Containing Graphite Nanoparticles." In *Innovations in Sustainable Energy and Technology*, pp. 231-242. Springer, Singapore, 2021.

Anil, Govind, M. Siva, **S. Srinath, and G. Uday Bhaskar Babu.** "Designing of Fractional-Order PI/PID Controller by Meta-heuristic Algorithm Using PSO for PEM Fuel Cell." In *Intelligent Algorithms for Analysis and Control of Dynamical Systems*, pp. 125-131. Springer, Singapore, 2021.

Ranganayakulu, R., and **G. Uday Bhaskar Babu.** "A comparative analysis of fractional filter PID controller for integrating processes with time delay." In *Intelligent Computing in Control and Communication*, pp. 281-292. Springer, Singapore, 2021.

Radhika, Gandu, Akash Kumar Burolia, **Pandiyan Kuppusamy Raghu Raja, Seshagiri Rao Ambati**, Dipesh S. Patle, and **Uday Bhaskar Babu Gara**. "Energy saving in batch distillation for separation of ternary zeotropic mixture integrated with vapor recompression scheme: dynamics and control." *Chemical Product and Process Modeling* (2020).

Jayanti, S., Gundlapalli, R., Chetty, R., Jeevandoss, C.R., Ramanujam, K., Monder, D.S., Rengaswamy, R., **Suresh, P.V**., Swarup, K.S., Varadaraju, U.V. and Gollangi, V., "Characteristics of an indigenously developed 1 kW vanadium redox flow battery stack." In *Proceedings of the 7th International Conference on Advances in Energy Research*, pp. 923-929. Springer, 2021.

Soundararajan, Rajmohan Kunju Vaikarar, Sunita Varjani, Ramya Chandrasekaran, and Deepika Kandasamy. "Recovery of Gold and Other Precious Metals by Biosorption." *Sustainable Resource Management, Volume II: Technologies for Recovery and Reuse of Energy and Waste Materials* 2, pp. 463-488, 2021.

Anjana P A, Niju S, "Heterogeneous catalysts for Pyrolysis and Biodiesel Production "Wiley-Scrivener, Scrivener Publishing LLC, Beverly, USA. ISBN: 9781119791980, 2020.

Conferences, workshops, FDPs, Webinars organized

Dr. Murali Mohan Seepana, Dr. K. S. Rajmohan, and Dr. Musthafa Muhammed (IISER Pune) Organized "Indo-UK Symposium on Green Energy for Sustainable Development" On the occasionof 150 Years Birth Anniversary of Mahatma Gandhi Sponsored by SPARC MHRD on August 28th 2020.

Prof. Anand Kishore Kola, Dr. Kishant and **Dr. Naresh** organised a five day FDP on "Teaching and Learning Strategies for Frontiers in Membranes for Wastewater Treatment (tlsf-mwwt)", NIT Warangal, 8th March – 12th March 2021.

Guest Talks/webinars delivered

Prof. A. SarathBabu, Expert Lecture on "Process Simulation" organized by BV Raju Institute of Technology, on 09-06-2021.

Prof. Anand Kishore Kola, Nanofiltration Integrated with Photocatalysis for Environmental Applications" at the "ATAL" Faculty Development Program on "Nanotechnology for Green Processes and Sustainable Development" organized by Dept. of Chemical Engineering, VNIT Nagpur during 24-28 August 2020

Prof. Anand Kishore Kola, "Photocatalysis Integrated With Nanofiltration And Biofilms For Wastewater Treatment Applications" at TEQIP-III Sponsored Fiveday On-Line Faculty Development Program (FDP) on Recent Advances in

Nanotechnology, Catalysis and Biochemical Engineering (RANCBE- 2020) organized by Department of Chemical Engineering, Veer Surendra Sai University of Technology, Burla, Odisha during 16-20'Sept, 2020.

Dr. Seshagiri Rao Ambati, Multi-model control of nonlinear systems, in an FDP titled Recent Trends in Control System Engineering organized by NIT Patna on June 2, 2021.

Dr. Seshagiri Rao Ambati, Advanced control of wastewater treatment plants, in an FDP titled Recent Trends in Control System Engineering organized by NIT Patna on June 3, 2021.

Dr. Seshagiri Rao Ambati, Modelling and control of biological wastewater treatment plants, in the Fifth PG Conference on Control Systems and Automation organized by PSG College of Technology, Coimbatore on April 24, 2021.

Dr. Venkata Suresh Patnaikuni, 4-E Analyses of Chemical Looping Combustion based Coal-Fired Power Plants, AICTE online 2 week STTP on Sustainable Design of Chemical Process Plants by Using Aspen Plus and Aspen HYSYS simulating tools, Vellore Instittue of Technology on Aug 13, 2020.

Dr. Venkata Suresh Patnaikuni,Application of CFD in the design of flow fieldsfor PEM fuel cells, AICTE Sponsored One Week Online Short Term Training Programme on COMPUTATIONAL FLUID FLOW AND HEAT TRANSFER (CFFHT), - Phase I, GVP Engineering College, Visakhapatnam on Aug 29, 2020.

Dr. Venkata Suresh Patnaikuni, CFD Simulation of Fuel Reactor of Chemical Looping Combustion of Coal, AICTE Sponsored One Week Online Short Term Training Programme on COMPUTATIONAL FLUID FLOW AND HEAT TRANSFER (CFFHT) - Phase II, GVP Engineering College, Visakhapatnam on Sep 22, 2020.

Dr. Venkata Suresh Patnaikuni, Enhanced Cross-flow Split Serpentine Flow Field (ECSSFF) Design for PEM Fuel Cells, SPARC workshop on Fuel Cell Technology and its Research Opportunities, NIT Warangal on Jan 05, 2021.

Dr. Murali Mohan Seepana, Fuel Cell Technology: Evolution and Key challenges, in Faculty Development Program (FDP) on Fuel Cell Technology: Progress, Challenges and Future Prospects at Government Engineering College, Kozhikode from 22-27th March 2021.

Dr. P. Sampath Kumar, Energy Storage Devices in an Online Workshop on Nano-electronic devices and their Applications on March 24, 2021, IIIT Kalyani, West Bengal, India.

Dr. P. Sampath Kumar, Super capacitors based on binary and ternary nano composites of polyaniline, graphene and metal oxide electrode materials" for PG Students of Nanotechnology, organized by Centre for Nano Science and Technology, IST, JNTUH, Hyderabad on 17th Sep 2020.

Dr. P. Sampath Kumar, Super capacitors based on binary and ternary nano composites: Some approaches, Challenges and Opportunities for the 4 Day FDP on " Challenges and Opportunities of Energy and Sensor Application" Organized by Department of Electrical and Electronics Engineering, JNTUA , Anantapur on 23rd Sep 2020.

Dr. Kishant Kumar, Application of computer simulation in adsorption and diffusion of small gaseous molecule inside the porous matrix in the North Eastern Regional Institute of Science and Technology, Arunachal Pradesh (Fully funded by MHRD, INDIA).

Dr. Anjana PA, Role of catalyst and electro catalyst in Energy applications,for FDP on Challenges and opportunities of energy and sensor applications organized by JNTUA College of Engineering, Ananthapur on 25th September 2020.

Dr. Anjana PA, Heterogeneous catalytic reaction mechanism: From bulk to surface for Webinar at department of Chemical Engineering, Amal Jyothi Institute, Kerala on 19th August, 2020.

Dr. Anjana PA, Critical descriptors for heterogeneous catalysis for FDP on Nano Science and Technology (Energy,

Environment and healthcare) organised by Sathyabama Institute of Science and Technology in association with Indian Institute of Information Technology, Design and manufacturing (IIITDM) Kancheepuram on 4th July 2020.

New lab established/ Equipment and Software procured

- Microwave reactor- (5 Lakhs)
- Tubular Furnace-(8 Lakhs)
- Electrochemical Workstation (7 Lakhs)
- UV-Visible Spectroscopy(2 lakhs)
- Vacuum Oven (2 lakhs)
- Tubular Furnace (1.5 Lakhs)
- Fume Hood (1.5 Lakhs)
- Workstations (3 No.s)-11 lakhs
- Centrifuge (1)-0.25 Lakhs

Awards/ Recognitions/ Achievements

Prof Shirish H. Sonawane, Recipient of the prestigious "Hindustan Dorr-Oliver Award"for Excellence in Use of Science & Technologyin Rural Development , IIChE,2020.

Prof Shirish H. Sonawane, was awarded a fellowship from The Polish National Agency for Academic Exchange (NAWA) Poland for the International Visiting fellowship under the Ulm Program 2020.

Prof. Anand Kishore Kola, awarded with Best Researcher Award by VDGOOD Professional Association, Chennai at 10th International Scientist Awards on Engineering, Science and Medicine during 26-27, Sep'2020, Hyderabad, India.

Prof. Anand Kishore Kola was awarded with Upadhyaaya Ratna Award'2020 by Sarvejana Sukhino Bhavanthu Organization, Hyderabad.

PhD Research guidance (Completed during the academic year)

Patil Harshal Somnath (Roll No. 715068), completed his Ph. D with title "Hydrodynamics of Stirred Tank using Radioactive Particle Tracking (RPT) Technique and CFD" under the guidance of Prof. A. Venu Vinod, Jan, 2021.

Abdulla Sheikh (Roll No. 714145), completed his Ph. D with title "Performance Evaluation of PEM Fuel cell incorporating Enhanced Cross-flow Split Serpentine Flow Field Design - Computational Study" under the guidance of Dr. P. V. Suresh, Oct, 2020.

Surywanshi Gajanan Dattarao (Roll No.716040), completed his Ph. D with title "-E (Energy, Exergy, Ecological and Economic) analyses of Chemical-Looping Combustion based Coal Fired Power Plants for CO2 Capture and Utilization" under the guidance of Dr. P. V. Suresh, June, 2021.

Pagidi Aruna (Roll No.714147), completed his Ph. D with title "Development of high temperature composite membranes for Direct Methanol Fuel Cell (DMFC)" under the guidance of Dr. Murali Mohan Seepana, Dec, 2020.

Shalini (Roll No. 716160), completed his Ph. D with title "Development of sustainable integrated fluidized bed bioreactor and microbial fuel cell system using agro-biowaste derived products for Congo red degradation" under the guidance of Prof HAG Y Pydisetty, Dec, 2020.

Potla Durthi Chandrasai (Roll No. 716046), completed his Ph. D with title "In silico and in vitro studies on L-Glutaminase from novel Bacillus sp., mutant isolated from Ocimum tenuiflorum" under theguidance of Dr. R. Satish Babu & Prof.K.Anand Kishore, April, 2021.

International conferences attended

Narsimha. Pandi, **Shirish H Sonawane**, **K. Anand Kishore**, presented a poster entitled "Ultrasound assisted synthesis of CNC-HNT-PANI nanocomposite for Supercapacitor application", International Conference on Multifunctional Electronic Materials & Processing (MEMP-2021) Pune, March 8-10, 2021 through virtual platform.

Dr. Seshagiri Rao Ambati attended International Water Association (IWA) Digital

World Water Congress 2021 during May 24 - June 4.

Details of students joined in higher educational institutes

Shaurya Verma, M.Tech. , Joined Ph.D. Chemical Engineering at Indian Institute of Technology Roorkee, July, 2021.

Arvind Kumar Mishra, M.Tech. , Joined Ph.D. Process Control at Indian Institute of Technology Roorkee, July, 2021.

Aishwarya S Rao, M.Tech. , Joined Ph.D. Chemical Engineering at Indian Institute of Sciences Bangalore, July, 2021.

Ashutosh Kumar Singh, M.Tech. , Joined Ph.D. Process Control at Indian Institute of Technology Bombay, July, 2021.

Vivek Kumar, M.Tech. , Joined Ph.D. Process Control at Indian Institute of Technology Roorkee, July, 2021.

Dibyajyoti Baidya, M.Tech. , Joined Ph.D. Process System Engineering at Indian Institute of Technology Bombay, July, 2021.

Sweksha Jain, M.Tech. , Joined Ph.D. Systems and Control Engineering at Indian Institute of Technology Bombay, July, 2021.

Shweta Malviya, M.Tech. , Joined Ph.D. Chemical Engineering at Indian Institute of Technology Kharagpur, July, 2021.

Arjun Patel, M.Tech. , Joined Ph.D. Chemical Engineering at University of Virginia, Virgina, July, 2021.

Please fill the table (All student information (UG/PG/PhD) for NIRF application

S. No.	Roll No.	Name of the Student	Placement Details	Higher Studies
1.	176101	Abbugari Praneeth	Byju’s	
2.	176102	Adarsh Raj	Dr.Reddy	
3.	176103	Adloori Yashwanth	K-12 Techno Services Pvt. Ltd	
4.	176105	Ankit Chouhan	Byju's	
5.	176106	INA SRI AREPALLE	PrimEra	
6.	176107	Ashutosh Singh	PharmaAce	
7.	176108	Sonu Bhagat	Byju's	
8.	176109	Challapalli Datta Charan	Dr.Reddy	
9.	176110	Dasari Sri Surya Tanvija	ExxonMobil	
10.	176112	ANVESH DONTULA	MasterCard	
11.	176114	John Guguloth	Byju's	

12.	176116	HIMANSHU SHARMA	Suntec	
13.	176117	Jagilapu Kalyan Kumar	Byju's	
14.	176118	Nomalatha K	Mondelez	
15.	176119	Kalidindi Sri Vaishnavi	-	Masters in Management and Innovation, ESSEC France
16.	176120	Shashidhar	Fractal Analytics	
17.	176122	Aditi Jain	O9 Solutions	
18.	176124	Kumar Abhishek	Axis Bank	
19.	176126	MAYANK KUMAR	BRIDGEi2i Analytics	
20.	176127	Miriyala Sai Teja	Dr.Reddy	
21.	176128	NEHA KUMARI	Eversana	
22.	176129	Ayaan Ali	O9 Solutions	
23.	176130	Sindhuja Pachika	K-12 Techno Services Pvt. Ltd.	
24.	176132	Pranav Khobragade	ITC	
25.	176138	Satyam Sharma	Merilytics	
26.	176140	Shravani Mangu	Aditya Birla Group	
27.	176141	Praveen Singi	Zenoti	
28.	176142	Sumeet Upadhyay	SRF Chemicals	
29.	176143	Sunil Kumar	Standav	
30.	176144	Sushil Chaudhari		M.Tech/IIT Bombay
31.	176145	Tankala Sai Datta Akhil	Blackbuck	
32.	176146	TALARI ARAVIND	Dalmia Cements	
33.	176147	Timmasarthi SAI TEJA	GAIL India Ltd	
34.	176148	VAIBHAV GOYAL	Oracle	
35.	176149	Valluri Venkata Raghavendra Praveen	PharmaAce	
36.	176151	SHERLIE VERGHESE	ExxonMobil	
37.	176152	Vijay Kumar Kanwadiya	Zycus	
38.	176153	Yash Vardhan SINGH	Zycus	

39.	176201	ABHISHEK GUPTA	tredence analytics	
40.	176202	Adelli Keerthi	Fractal Analytics	
41.	176204	Ankam Sriharshini	Fractal Analytics	
42.	176206	Asad Ahmed	Semut SG	
43.	176210	Vivek Shastry Devalla		M.S Biochemical Eng./University of California, San Diego
44.	176212	Chandana Gattupally	Dr.Reddy	
45.	176214	Arun Kumar GSS	Dr.Reddy	
46.	176215	Gurrapu Yashaswi Anuraag Babu	CollegeDunia	
47.	176216	Sai Sampath	GAIL India Ltd	
48.	176217	Joanna Renji		M.S Chemical Eng./New Jersey Institute of Technology
49.	176218	Kadagala Harendra Naidu	GAIL India Ltd	
50.	176219	Akhila Kalivemula	Coromandel	
51.	176220	PARDHU KASAM	Coromandel	
52.	176222	Sivani Kolleboyina	Deloittee	
53.	176223	Srikala Kiranmayee Kota	MasterCard	
54.	176225	Marapatla Cindy Mercy Joycee	Vedanta	
55.	176227	Musaib Khan	JK Tyres	
56.	176228	Gnaneshwar Reddy	tredence analytics	
57.	176229	Lahari Sumanjali Pabbisetty	ExxonMobil	
58.	176230	Pankaj Yadav	Byju's	
59.	176231	POTHUGANTI SANTHOSH	Lentra AI	
60.	176232	Pranita Kadam	HUL	
61.	176233	Priyadarshini Biswal	Fractal Analytics	
62.	176234	Lasya Puppala	Fractal Analytics	
63.	176235	Rachamoni Ravichandra Kumar	GAIL India Ltd	

64.	176236	Sai Sree Ramachandruni	HUL	
65.	176237	Deekshith Resu	CollegeDunia	
66.	176239	Shashi Pal	ABG	
67.	176240	Shivansh Gupta	CollegeDunia	
68.	176241	SHREYANS JAIN	ZS DS	
69.	176242	Hrushikesh Sriramaneni	Byju's	
70.	176243	SUMIT SINGH	Neosoft	
71.	176246	T Anirudh	ABG	
72.	176247	GANESH TALLURI	Deloittee	
73.	176248	Yaska Vadlamudi	Dalmia Cements	
74.	176249	Vaibhav Peddi	K-12 Techno Services Pvt. Ltd.	
75.	176250	Vanessa Suares	SRF Chemicals	
76.	176251	VEERAMALLU ANANYA	LnT	
77.	176252	Vibhash Garg	ExxonMobil	
M.Tech Program				
1.	196501	Aishwarya Rao	PharmaAce	Ph.D. Chemical Engineering at IISc Bangalore
2.	196502	Alisha Joshi	Deccan Fine Chemicals	
3.	196503	Arjun Patel	-	Ph.D. Chemical Engineering at University of Virginia
4.	196505	Boddani Chandaneswar Kumar	Deccan Fine Chemicals	
5.	196511	Pakala Shyamprasad	Deccan Fine Chemicals	
6.	196514	Shaurya Verma	-	Ph.D. Chemical Engineering at IIT Roorkee
7.	196516	Shweta Malviya	-	Ph.D. Chemical Engineering at IIT Kharagpur
8.	196517	Sunny Sherawat	PharmaAce	-
9.	196553	Annada Prasad Mahali	Byju's	-

10.	196554	Arvind Kumar Mishra	-	Ph.D. Systems & Control at IIT Roorkee
11.	196555	Ashutosh Kumar Singh	-	Ph.D. Process Control at IITB
12.	196558	Dibyajyoti Baidya	-	Ph.D. Process System Engineering at IITB
13.	196564	Sweksha Jain	-	Ph.D. Systems and Control Engineering at IITB
14.	196565	Vivek Kumar	-	Ph.D. Systems & Control at IIT Roorkee

Department Outreach Activities

Dr. Shirish Sonawane, Editorial Board Member for Journal of Ultrasonic Sonochemistry, 2021, Elsevier, Impact factor 6.8.

Dr. Anand Kishore Kola, Director's Nominee in the State Level Committee (SLC) for finalization of Best Teacher Awards '2020- Technical Education, GoT.

Dr. Seshagiri Rao, Associate Editor of CPPM on June 10th 2021,It is a quarterly journal published by De Gruyter since 2006 and it covers theoretical and applied research on the product and process design, modelling, simulation, and optimization.

Department Association/Students Clubs Activities

ChEA and IIChE-SC organized the **Virtual Inaugural Ceremony** on 7th November, 2020 through Google-meet and is inaugurated by Shri. K Ramalingam, Director, SVL Engineering Services Pvt. Ltd. Chennai.

ChEA conducted a **TEQIP Sponsored Expert Lecture** by titled, "An Introduction to Hazop/ What Went Wrong and Lessons Learnt." By Shri. K Ramalingam, Director, SVL Engineering Services Pvt. Ltd.

ChEA & IIChE-SC has conducted an event **"Placements Confab"** to generate awareness about Internship and Placement to the Students.

ChEA & IIChE-SC has conducted **"Chem-E-Cross"** a series of events on 15th, 22nd and 29th November on fun filled Quiz and puzzles on basic concepts related to chemical engineering to the Students.

ChEA & IIChE-SC, National Institute of Technology, Warangal has conducted the event. **'Resume Building Workshop'** on 29th November, 2020.

ChEA conducted **'Know your Acads**' on 9th December. The event gave an overview of the academic structure, from grading to scholarships, from sliding to useful skills.

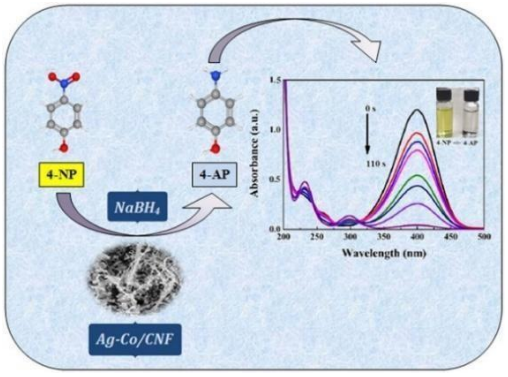
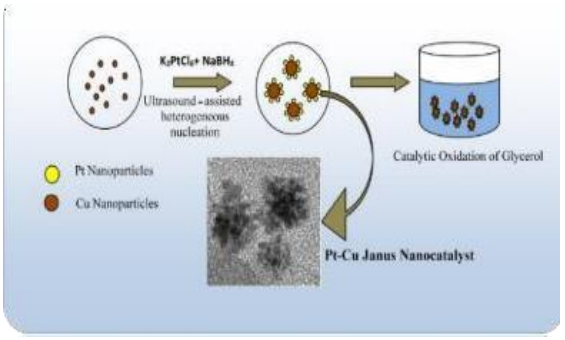
ChEA in collaboration with the Fitness Club conducted the event on **'Walk through the Year'** on 28th-30th December 2020.

ChEA conducted **"Unravel the Puzzle"** event on 17th January 2021. The event had fun puzzles around environment, sustainability and pollution, designed to create awareness.

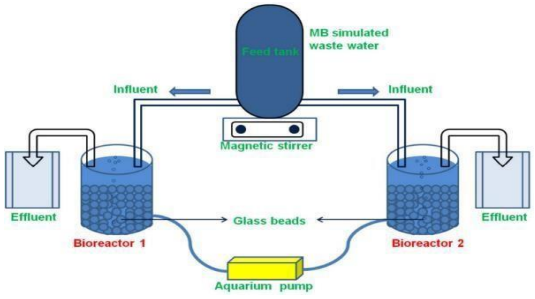
ChEA & IIChE-SC in collaboration with URA and Innovation Garage, CII conducted the event **'Research Wrap Up'** on 31st March, 2021.

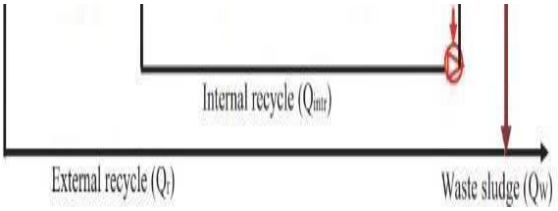
ChEA & IIChE-Student Chapter conducted a '**membership drive'** session for IIChE at 6PM on 9th April 2021.

Highlights of the department

<table>
<tr>
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<td>Synthesis of bimetallic Ag–Co nanoparticles supported on cellulose nanofibers (CNFs) for application in catalytic activity.

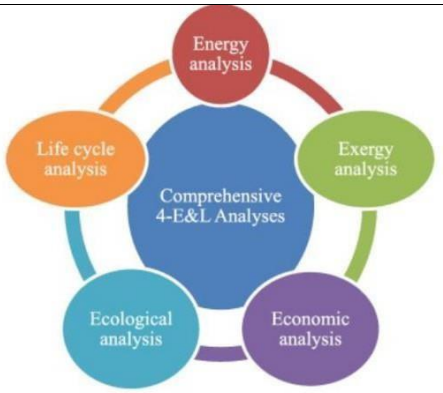
doi.org/10.1016/j.jece.2021.105719</td>
<td>Selective Oxidation of Glycerol: A Biomass-Derived Feedstock Using the Pt–Cu Janus Catalyst for Value-Added Products

doi.org/10.1021/acs.iecr.0c04626</td>
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<td>

Schematic illustration of the experimental setup for simulated Methylene Blue (MB) dye wastewater treatment</td>
<td>

Supervisory Control Configuration in Benchmark Simulation Model 1.</td>
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<tr>
<td>Assessment of the aerobic glass beads fixed biofilm reactor (GBs-FBR) for the treatment of simulated methylene blue wastewater

doi.org/10.1038/s41598-020-77670-2</td>
<td>Supervisory control configurations design for nitrogen and phosphorus removal in wastewater treatment plants
DOI: 10.1002/wer.1512</td>
</tr>
</table>

 Experimental setup	 4-E&L analyses.
Natural convection heat transfer using water-based nanofuid in a shell and helical coil heat exchanger. doi.org/10.1007/s11696-020-01490-x	CO_2 capture and utilization from supercritical coal direct chemical looping combustion power plant – Comprehensive analysis of different case studies. doi.org/10.1016/j.apenergy.2021.117915

Summary

S.No.	Activity	Number
1	**Publications (Peer Reviewed Journals/ conferences)(SCOPUS/SCI)**	
	International Journals	*42*
2	**Funded Research Projects/SPARC projects (2020-21)**	
	Completed Projects(109.86 Lakhs)	*5*
	Ongoing Projects (Rs 281.4 Lakhs)	*14*
3	**SPARC Project Workshops**	*1*
5	**Patents**	*2*
	Awarded	*1*
	Published	*1*
6	**Books and Book Chapters**	*17*
	Books	*1*
	Book Chapters	*16*
7	**Conferences/ Workshops/GIAN courses/FDPs Conducted**	*3*
8	**Guest talks/ Webinars delivered**	*18*
9	**New Labs Established (Equipment/Software Procured)**	*Rs.38 Lakhs*
10	**Awards/Recognitions/Achievements**	*4*
11	**Research Guidance (Completed in 2020-21)**	*6*
13	**Students Achievements**	
	Placements	

	B.Tech.	72.2%
	M.Tech.	22.2%
	Higher Education (M.Tech, PhD at IITs & Abroad)	10.2 %
14	**Chemical Engineering Association Activities**	10
16	**Outreach Programmes**	3

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Brief History of the Department, Academic Programs

The Department of Computer Science & Engineering was established in the year 1991. The department offers high quality undergraduate, postgraduate and doctoral programs. The B. Tech (Computer Science and Engineering) program was started in the year 1983 with an intake of 20 students. The intake was subsequently increased to120 in 2008. M. Tech (Computer Science and Engineering) program was started in 1987 with an intake of 18 and subsequently increased to 20 in 2008. M. Tech (Information Security) was introduced in the year 2008 Under ISEAP sanctioned by Ministry of Communication and Information Technology (MCIT), DOE, GOI, New Delhi with intake of 20. Later, it was renamed as Computer Science and Information Security. The Master of Computer Applications (MCA) program was started in 1986 with an intake of 30 and increased to 46 from 2008. B.Tech, M.Tech (CSE) and M.Tech (CSIS) programs were accredited in 2014 by NBA as per Washington Accord.

The department has distinguished and committed faculty members with PhD from reputed institutes. It has close rapport with MICROSOFT, TCS, INFOSYS, ORACLE, TRDDC-Pune, SUN Microsystems, EMC^2, ACCENTURE, C-DAC, MOTOROLA, HONEYWELL, NOVELL, PHILIPS, SAMSUNG, and IBM-Bangalore. The department has MOUs with TCS, IBM, C-DAC and INFOSYS, for training students and faculty on latest cutting edge technologies and also to pursue Research and Development activities.The Department has been selected as a Remote Center under Information Security Awareness Project (ISEAP) Phase II, MCIT Dept of IT. Along with department of ECE, it is associated in E&ICT Academy project sanctioned by Department of Electronics and Information Technology, Govt of India for Rs.25 crores to train faculty from Engineering and Polytechnic Streams across Telangana, Andhra Pradesh, Karnataka States and Pudicherry, Andaman & Nicobar islands and Lakshadweep UTs.



Faculty Details:

Sl. No.	Name of the Faculty Member	Designation	Highest Qualification	Research Interests	Photograph
1	##**Prof. DVLN Somayajulu**	Professor (HAG)	Ph.D.	Databases, Information Extraction & Big Data	
2	**Prof. B. B. Amberker**	Professor	Ph.D.	Cryptosystems and Signature schemes	
3	**Prof. S G Sanjeevi**	Professor	Ph.D.	Machine Learning and Soft Computing	
4	**Prof. R.B.V. Subramanyam**	Professor	Ph.D.	Data Mining, Big Data Analytics	
5	**Prof. P. Radha Krishna**	Professor and head	Ph.D.	Data Mining	
6	**Dr. K. Ramesh**	Associate Professor	Ph.D.	Architectures &Coding infrastructures in CNs	
7	**Dr. Ch. Sudhakar**	Associate Professor	Ph.D.	Cloud Computing, Distributed Systems	

8	**Dr. S. Ravi Chandra**	Associate Professor	Ph.D.	Software Engineering, Software Architecture	
9	**Dr. R. Padmavathy**	Associate Professor	Ph.D.	Cryptanalysis and Network Security	
10	**Dr. Rashmi Ranjan Rout**	Associate Professor	Ph.D.	Computer Networks, Mobile Computing	
11	**Dr. T. Ramakrishnudu**	Assistant Professor	Ph.D	Association Rule Mining; Distributed Data Analysis	
12	**Dr. RajuBhukya**	Assistant Professor	Ph.D	Software Engineering, Computer Organization	
13	**Dr.U.S.N.Raju**	Assistant Professor	Ph.D	Computer Vision and Image Processing	
14	**Dr. K.V. Kadambari**	Assistant Professor	Ph.D	Computational Neuroscience	
15	**Dr. P. venkataSubba Reddy**	Assistant Professor	Ph.D	Algorithms and GraphTheory	

16	**Dr. ManjubalaBisi**	Assistant Professor	Ph.D	Software reliability modelling	
17	**Dr. Sujit Das**	Assistant Professor	Ph.D	Fuzzy Set, Hybridized Fuzzy Soft Set	
18	**Dr. Earnest Paul Ijjina**	Assistant Professor	Ph.D	Computer Vision, Video Content Analysis	
19	**Dr. IIaiah Kavati**	Assistant Professor	Ph.D.	Pattern recognition, image processing	
20	**Dr. Sushil Kumar**	Assistant Professor	Ph.D	Soft Computing, Metaheuristics	
21	**Dr. M Sandhya**	Assistant Professor	Ph.D.	Biometrics, Pattern Recognition	
22	**Dr. E Suresh Babu**	Assistant Professor	Ph.D.	Wireless Network	
3	**Dr. Sanjaya Kumar Panda**	Assistant Professor	Ph.D.	Cloud Computing	

24	**Dr. M Srinivas**	Assistant Professor	Ph.D.	Image Processing, Medical Imaging	
25	**Dr. Balaprakash Rao Killi**	Assistant Professor	Ph.D.	Software-Defined Networking	
26	**Dr. Venkataswara Rao Kagita**	Assistant Professor	Ph.D.	Recommender Systems, Machine Learning	
27	**Dr. Ramalingaswamy Cheraku**	Assistant Professor	Ph.D.	Soft Computing, Machine Learning	
28	**Dr. Sangharatna Godboley**	Assistant Professor	Ph.D	Program Analysis and Software Testing	
29	**Prof. T. Ramesh**	Visiting Professor	Ph.D.	Theoretical Computer Science	

Journal Publications

Prahlad Koratamaddi, Karan Wadhwani, Mridul Gupta, Sriram G Sanjeevi,Market sentiment-aware deep reinforcement learning approach for stock portfolio allocation,Engineering Science and Technology, an International Journal, Vol. 24 (4), pp. 848-859,2021,SCIE,4.36

JR Gudeme, SK Pasupuleti, R Kandukuri ,Attribute-based public integrity auditing for shared data with efficient user revocation in cloud storage,Journal of Ambient Intelligence and Humanized Computing, Vol. 12, pp. 2019–2032,2021,SCI,7.104

Gudeme, J. R., Pasupuleti, S. K., Kandukuri,Certificateless privacy preserving public auditing for dynamic shared data with group user revocation in cloud storage,Journal of Parallel and Distributed Computing, ,2021,SCI,3.734

JR Gudeme, SK Pasupuleti, R Kandukuri,Certificateless multi-replica public integrity auditing scheme for dynamic shared data in cloud storage,Computers & Security, vol. 103, p.102176,2021,SCI,4.438

Sathyanarayanan Srinivasan, Ramesh Kandukoori,A synod based deterministic and indulgent leader election protocol for asynchronous large groups,International Journal of Parallel, Emergent and Distributed Systems, pp. 1-28,2021,ESCI,1.51

Chaitanya, K., Somayajulu, D. N., & Krishna, P. R.,Memory-Based Approaches for Eliminating Premature Convergence in Particle Swarm Optimization,Applied Intelligence, 2021, 1-34.,2021,SCIE,5.086

Chaitanya, K., Venkatesh, P.R., Somayajulu, D. N., Krishna, P. R.,A PSO Based Cloud Framework for Knowledge Extraction,Journal of Engineering Research, 2021,2021,SCIE

Chaitanya, K., Somayajulu, D. V. L. N.,& Krishna, P. R.,Applications of Memory Based Particle Swarm Optimization for Predicting Equipment Failures and Optimizing Cost in Oil and Gas,Design Engineering, 2021, 5, 664 – 682.,2021.

Paleti, L., Krishna, Krishna P. R., & Murthy, J. V. R.,Approaching the Cold-Start problem using Community Detection based Alternating Least Square Factorization in Recommendation Systems,Evolutionary Intelligence, 2021, 14(2), 835-849.,2021,ESCI,

Paleti, L., Radha Krishna, P., & Murthy, J. V. R.,User Opinions Driven Social Recommendation System,International Journal of Knowledge-based and Intelligent Engineering Systems, 2021, 25(1), 21-31.,2021,ESCI,

Venkatesh, P.R., Chaitanya, K., & Krishna, P.R.,Azure Cognitive Search for Oil Industry,Journal of Innovation Sciences and Sustainable Technologies, 2021, 1(2), 154-175.,2021.

Saha, N., Akhila, Y. V., & Krishna, P. R.,An Improved Image Captioning Using Emotions,Journal of Innovation Sciences and Sustainable Technologies, 2021, 1(2), 91 – 118.,2021.

Vaibhavi, M., & Krishna, P. R.,Music Genere Classification using Neural Networks with Data Augmentation,Journal of Innovation Sciences and Sustainable Technologies, 2021,1(1), 21-38.,2021.

Venkatesh, P. R., Chaitanya, K., Somayajulu, D. V. L, N., Krishna, P. R.,Integrated Geo Cloud Solution for Seismic Data Processing,Journal of Information Technology in Industry, 2021, 9(2), 589-604.,2021,ESCI/SCOPUS,0.043

Venkatesh, P. R., Chaitanya, K., Somayajulu, D. V. L, N., Krishna, P. R.,Knowledge Graphs Using Cloud Services,Turkish Journal of Computer and Mathematics Education, 2021, 12(10), 3979-3991.,2021.

Lingam, G., Rout, R. R., Somayajulu, D. V. L. N., & Ghosh, S. K.,Particle Swarm Optimization on Deep Reinforcement Learning for Detecting Social Spam-Bots and Spam-Influential Users in Twitter Network,IEEE Systems Journal, 2020, 15(2), 2281-2292.,2020,SCIE,3.931

Rout, R. R., Lingam, G., & Somayajulu, D. V. L. N.,Detection of Malicious Social Bots Using Learning Automata With URL Features in Twitter Network,IEEE Transactions on Computational Social Systems, 2020, 7(4), 1004-1018.,2020,SCIE,

A Sudarshan Chakravarthy, Ch Sudhakar, T Ramesh,Intermediate Node Selection for Scatter-Gather VM Migration in Cloud Data Center,Engineering Science and Technology,

an International Journal, 2020, 23(5), 989-997.,2020,SCIE,4.36

Dorsala, M. R., Sastry, V. N., Chapram, S.,Fair Payments for Verifiable Cloud Services Using Smart Contracts,Computers & Security, 2020, 90.,2020,SCIE,4.438

Rayanoothala Praneetha Sree, Durvasula VLN Somayajulu, S Ravichandra,A Novel Approach for Mining Time and Space Proximity-based Frequent Sequential Patterns from Trajectory Data,Journal of Information & Knowledge Management,2020.

KS Spoorthi, R Padmavathy, SK Pal, S Ravi Chandra,Linear Algebra on Parallel Structures Using Wiedemann Algorithm to Solve Discrete Logarithm Problem,IETE Journal of Research, IF 2.332020.

D Hemkumar, S Ravichandra, DVLN Somayajulu,Impact of prior knowledge on privacy leakage in trajectory data publishing,Engineering Science and Technology, an International Journal,2020.

Ravichandra Sadam Vinay Raj,Performance and complexity comparison of SOA and microservices architectures,International Journal of Communication Networks and Distributed Systems,2021.

D Hemkumar, S Ravichandra, Durvasula VLN Somayajulu,Impact of data correlation on privacy budget allocation in continuous publication of location statistics,Peer-to-Peer Networking and Applications,2021.

Rahul Janga, R.Padmavathy, S. K. Pal & S. Ravichandra,A Framework for Filtering Step of Number Field Sieve and Function Field Sieve,IETE Journal of Research, IF2.33,2021.

Ravichandra Sadam Vinay Raj,Evaluation of SOA-Based Web Services and Microservices Architecture Using Complexity Metrics,SN Computer Science,2021.

Ravichandra Sadam Vinay Raj,Patterns for Migration of SOA Based Applications to Microservices Architecture,Journal of Web Engineering,2021.

Thakkalapally Preethi, BB Amberker,Lattice-based group signature scheme without random,Information Security Journal: A Global Perspective,2020.

Thakkalapally Preethi and Bharat Amberker,Traceable Signatures using Lattices,The International Arab Journal of Information Technology,2020.

MH Abhilash, BB Amberker,Efficient Dynamic Group Signature Scheme with Verifier Local Revocation and Time-Bound Keys using Lattices,International Journal of Computer and Information Technology,2021.

Satish Vemireddy, Rashmi Ranjan Rout,Clustering based energy efficient multi-relay scheduling in green vehicular infrastructure,Vehicular Communications (Elsevier),2020,SCI,6.91

Rashmi Ranjan Rout, Greeshma Lingam, DVLN Somayajulu,Detection of Malicious Social Bots Using Learning Automata WithURL Features in Twitter Network,IEEE Transactions on Computational Social Systems,2020.

Greeshma Lingam, Rashmi Ranjan Rout, D. V. L. N. Somayajulu and S. K. Ghosh,Particle Swarm Optimization on Deep Reinforcement Learning for Detecting Social Spam Bots and Spam-Influential Users in Twitter Network,IEEE Systems Journal,2020,SCI,3.9.

Rashmi Ranjan Rout, Satish Vemireddy,Sanjib Kumar Raul, DVLN Somayajulu,Fuzzy Logic-based Emergency Vehicle Routing: An IoT System Development for Smart City Applications,Computers and Electrical Engineering (Elsevier),2020,SCI,3.818

Satish Vemireddy, Rashmi Ranjan Rout,Auction Based Energy-Efficient Cooperative Relay Scheduling in Bidirectional Highway Scenarios for VANET,Wireless Personal Communications (Springer),2021,SCI,1.67

Manoj Kumar Somesula, Rashmi Ranjan Rout, DVLN Somayajulu,Deadline-aware caching using echo state network integrated fuzzy logic for mobile edge networks,Wireless Networks (Springer),2021,SCI,2.602.

Manoj Kumar Somesula, Rashmi Ranjan Rout, DVLN Somayajulu,Contact duration-aware cooperative cache placement using genetic algorithm for mobile edge networks,Computer Networks (Elsevier),2021,SCI,4.474.

Shubham D, Damodar, Annushree B, Ramalingaswamy Cheruku,Lie detection using extreme learning machine: A concealed information test based on short-time Fourier transform and binary bat optimization using a novel fitness function,Computational Intelligence 36(2): 637-658,2020.

Sujit Das, Bikash Koli Roy, Mohuya B. Kar, Samarjit Kar, Dragan Pamucˇar,Neutrosophic fuzzy set and its application in decision making,Journal of Ambient Intelligence and Humanized Computing, 2020, DOI 10.1007/s12652-020-01808-3\,2020.

Shubham Varshney, C Pankaj , R.Padmavathy andS.K. Pal,Relation Collection using Pollard special−q sieving to solve Integer Factorization and Discrete Logarithm Problem,Jounal of Supercomputing, IF2.47 , published online 02-07- 2020,2020.

Vinod Mahor , R.Padmavathiy, Santanu Chatterjee , Sanshray Kumar Dewangan , Manish Kumar,A secure three factor fully anonymous user authentication protocol for multi-server environment,International journal of Adhoc and Ubiquitous Computing,pp 45-60,v34(1), IF .654, 2020.

Sanjaya Kumar Panda, Sourav Kumar Bhoi and Munesh Singh,A Collaborative Filtering Recommendation Algorithm Based on Normalization Approach,Journal of Ambient Intelligence and Humanized Computing, 2020, 1-23,2020.

Sohan Kumar Pande, Sanjaya Kumar Panda and Satyabrata Das,Dynamic Service Migration and Resource Management for Vehicular Clouds,Journal of Ambient Intelligence and Humanized Computing, 2020, 1-21,2020.

Sunkuru Gopal Krishna Patro, Brojo Kishore Mishra, Sanjaya Kumar Panda, Raghvendra Kumar, Hoang Viet Long, David Taniar and Ishanni Priyadarshini,A Hybrid Action-Related K-Nearest Neighbour (HAR-KNN) Approachfor Recommendation Systems,IEEE Access,2020, 8, 90978-90991,2020

Sourav Kumar Bhoi, Sanjaya Kumar Panda, Kalyan Kumar Jena, Chittaranjan Mallick and Akhtar Khan,A Fuzzy Approach to Identify Fish Red Spot Disease,Grey Systems: Theory and Application, 2020, 10(3), 249-263,2020.

Sunkuru Gopal Krishna Patro, Brojo Kishore Mishra, Sanjaya Kumar Panda, Raghvendra Kumar and Hoang Viet Long,Knowledge-Based Preference Learning Model for Recommender System Using Adaptive Neuro-Fuzzy Inference System,Journal of Intelligent and Fuzzy Systems, 2020, 1-15,2020.

Chittaranjan Mallick, Sourav Kumar Bhoi, Sanjaya Kumar Panda and Kalyan Kumar Jena,An Efficient Learning Algorithm for Periodic Perceptron to Test XOR Function and Parity Problem,SN Applied Sciences, 2020, 1-6,2020.

Yadav, Milind, Murukessan Perumal, and M. Srinivas,Analysis on novel coronavirus (COVID-19) using machine learning methods,Chaos, Solitons & Fractals, Elsevier,2020.

R. Ramu Naidu, M. Srinivas and C.S. Sastry,Ternary matrices compliant with Restricted Isometry Property: Construction and Application to image retrieval,Journal of Combinatorics, Information and System Sciences (Acepted),2020.

D Hemkumar, S Ravichandra, DVLN Somayajulu,Impact of prior knowledge on privacy leakage in trajectory data publishing Engineering Science and Technology, an International Journal,2020.

Rayanoothala Praneetha Sree & D. V. L. N. Somayajulu & S. Ravichandra,A Novel Approach for Mining Time and Space Proximity-based Frequent Sequential Patterns from Trajectory Data Journal of Information & Knowledge Management (JIKM), World Scientific Publishing Co. Pte. Ltd..2020.

KS Spoorthi, R Padmavathy, SK Pal, S Ravi Chandra,Linear Algebra on Parallel Structures Using Wiedemann Algorithm to Solve Discrete Logarithm Problem IETE Journal of Research, IF 2.33,2020.

Thakkalapally Preethi, B. B. Amberker,Lattice-based group signature scheme without random oracle.,. Inf. Secur. J. A Glob. Perspect. 29(6): 366-381 ,2020.

J. Pavan Kumar , P. Venkata Subba Reddy and S.Arumugam,Algorithmic Complexity of Secure Connected Domination inGraphs,AKCE International Journal of Graphs and Combinatorics,2020.

J. Pavan Kumar and P. Venkata Subba Reddy,Algorithmic Aspects of Some Variants of Domination in Graphs,Analele Stiintifice ale Universitatii Ovidius Constanta, Seria Matematica,2020.

Balaprakasa Rao Killi and Seela Veerabhadreswara Rao,Poly-stable matching based scalable controller placement with

balancing constraints in SDN,Elsevier Computer Communication,2020.

P. Chakradhar and P. Venkata Subba Reddy,Algorithmic Aspects of Roman Domination in Graphs,Journal of Applied Mathematics and Computing,2020.

Dasari, C.M., Bhukya, R. nterSSPP: Investigating patterns through interpretable deep neural networks for accurate splice signal prediction,hemometrics and Intelligent Laboratory Systems.2020.

Dasari, C.M., Bhukya, R.,Comparative analysis of protein synthesis rate in COVID-19 with other human coronaviruses,Infection, Genetics and Evolution,2020.

Amilpur, S., Bhukya, R. EDeepSSP: Explainable deep neural networks for exact splice sites prediction,Journal of Bioinformatics and Computational Biology,2020.

Bhukya, R., Ashok, A.,Gene expression prediction using deep neural networks,International Arab Journal of Information Technology,2020.

Bhukya, R., Deshmuk, S,Referential DNA data compression using hadoop map reduce framework,International Arab Journal of Information Technology,2020.

U.S.N.Raju,Suresh Kumar K,Pulkesh Haran, Ramya Sree B, Niraj Kumar,Content Based Image Retrieval using Local Texture Features in Distributed Environment,International Journal of Wavelets, Multiresolution and Information Processing,2020.

Suresh Kumar K, U.S.N.Raju,Shanmukhi P, Khyathi Aneesha G,Mohammed Ehsan Ur Rahman,Image Retrieval by Coalition ofGlobal Correlation of Color and Intensity Histograms and Local Texture Features,Multimedia Tools Applications,2020.Mahesh Kumar M, MV.N.K. Pnkprasad, U.S.N.Raju,Privacy-preserving Iris Authentication using Fully Homomorphic Encryption,Multimedia Tools Applications,2020.

Mahesh Kumar M,Sowmya Veldandi, MV.N.K. Pnkprasad,U.S.N.Raju,Multi-instance iris remote authentication using private multi-class perceptron on malicious cloud server,Applied Intelligence ,2020.

Mahesh Kumar M, Munaga V.N.K.Prasad, U.S.N.Raju,BMIAE: Blockchain-based Multi-instance Iris Authentication using Additive El-Gamal Homomorphic Encryption,IET Biometrics,2020.

Mahesh Kumar M, Munaga V.N.K.Prasad, Mrudula Verma, U.S.N.Raju,SvaS: Secure and Verifiable Machine Learning based Iris Authentication System using Fully Homomorphic Encryption,Computers & Electrical Engineering,2020.

Sweta Panigrahi, Debanjan Pathak, U.S.N.Raju,K.V.Kadambari,A. Harika,Rapid Detection of COVID-19 from Medical Images using Deep Convolutional Neural Networks,International Journal of Biomedical Engineering and Technology,2020.

Mahesh Kumar m, Munaga VNK Prasad, and U.S.N.Raju,Privacy-preserving and Verifiable Multi-Instance Iris Remote Authentication using Public Auditor,Applied Intelligence ,2020.

Prahlad Koratamaddi, Karan Wadhwani, Mridul Gupta, Sriram G. Sanjeevi,Market Sentiment-Aware Deep Reinforcement Learning Approach for Stock Portfolio Allocation,Engineering Science and Technology, an International Journal,2020.

Arpita Dutta, Saksham Sahai Srivastava, Sangharatna Godboley, and Durga Prasad Mohapatra.,Combi-fl: Neural network and sbfl based fault localization using mutation analysis. ,Journal of Computer Languages, Elsevier, 66:101064.2021,. SCIE,1.271

Swadhin Kumar Barisal, Arpita Dutta, Sangharatna Godboley, Bibhudatta Sahoo, and Durga Prasad Mohapatra. ,MC/DC guided test sequence prioritization using firefly algorithm.,Evol. Intell., Springer 14(1):105–118,2021,SCOPUS,

Conference publications

Lingam, G., Rout, R. R., Somayajulu, D. V. L. N., & Das, S. K.,Social Botnet Community Detection: A Novel Approach based on Behavioral Similarity in Twitter Network using Deep Learning,Proceedings of the 15th ACM Asia Conference on Computer and Communications Security Oct. 2020, (pp. 708-718).

Karmakar, S., & Krishna, P. R.,Leveraging Latent Representations of Speech for Indian Language Identification,17th International Conference on Natural

Language Processing (ICON 2020), 334-340, December 2020, Patna, India. 18-21.

Belagur, H., Reddy, S., Jithendra, B., & Krishna, P. R.,Multiheaded Hierarchical Encoder Decoder for Analyzing Multimodal Conversations,IEEE CCEM (Cloud Computing in Emerging Markets) Pre-conference Workshop 2021, February 2021.

Kumar, N., Krishna, P. R., & Kumar, V.,Recommendation Based on Visual Co-occurrence,IEEE CCEM (Cloud Computing in Emerging Markets) Pre-conference Workshop 2021, February 2021

Bisi. M.,An ANN-TLBO model to predict cumulative number of failures in software,IEEE HYDCON, 2020, hyderabad, india

Bisi. M.,ANN-PSO Approach on Logistic Model based Software Reliability Prediction,IEEE CICT, 2020, IIITDM Kancheepuram, Chennai, india

Bisi M. , Divija A. , Namala S., and Sarap R.,CNN-BPSO Model for Multi Classification of Tweets,IEEE CICT, 2020, IIITDM Kancheepuram, Chennai, india

Bisi M. and Keska K.,CNN-BPSO Approach to Select Optimal Values of CNN Parameters for Software Requirements Classification,IEEE INDICON, 2020, Netaji Subhas University of Technology, delhi, india

Avinash Potluri, S. Nagesh Bhattu, N. V. Narendra Kumar, and R. B. V. Subramanyam,Design Strategies for Handling Data Skew in MapReduce Framework,ICICIT 2019, LNNS 98, pp. 240–247, 2020

P. Chakradhar and P. Venkata Subba Reddy,Algorithmic Aspects of Total Roman Domination and Total Double Roman Domination in Graphs,7th Annual International Conference on Algorithms and Discrete Applied Mathematics (CALDAM 2021), February 11-13, 2021, IIT Ropar, India

Jinish Raiyarela, Pratyush Chaudhary and P. Venkata Subba Reddy,A Linear Algorithm for Super Domination in Trees, International Conference on Mathematical Techniques in Engineering Applications,4th International Conference on Mathematical Techniques in Engineering Applications (ICMTEA2020), Graphic Era Deemed to be University, December 4-5, 2020, Dehradun, India.

Attyuttam Saha and P. Venkata Subba Reddy,A Note on Roman {2}-Domination Number of kth Power of Paths and Cycles,28th International Conference of Forum for Interdisciplinary Mathematics: Synergies in Computational, Mathematical, Statistical and Physical Sciences, November 23-27, 2020, Chennai, India

P. Chakradhar and P. Venkata Subba Reddy,Perfect Double Roman Domination in Graphs,28th International Conference of Forum for Interdisciplinary Mathematics: Synergies in Computational, Mathematical, Statistical and Physical Sciences, November 23-27, 2020, Chennai, India

Earnest Paul Ijjina, Aniruddha Srinivas Joshi, and Goutham Kanahasabai,Detection of Customer Interested Garments in Surveillance Video using Computer Vision,11th International Conference on Computing, Communication and Networking Technologies (ICCCNT), India, 1-3 July 2020

Earnest Paul Ijjina, GouthamKanahasabai, and Aniruddha Srinivas Joshi,Deep Learning based approach to detect Customer Age, Gender and Expression in Surveillance Video,11th International Conference on Computing, Communication and Networking Technologies (ICCCNT), India, 1-3 July 2020

Earnest Paul Ijjina, Aniruddha Srinivas Joshi, Goutham Kanahasabai, and Keerthi Priyanka P,Customer Analytics using Surveillance Video,11th International

Conference on Computing, Communication and Networking Technologies (ICCCNT), India, 1-3 July 2020

Uma Sankararao Varri, Syam Kumar Pasupuleti, KV Kadambari,Key-Escrow Free Attribute-Based Multi-Keyword Search with Dynamic Policy Update in Cloud Computing,2020

Rahul Kumar, Kamalakanta Sethi, NishantPrajapati, Rashmi Ranjan Rout, Padmalochan Bera,Machine Learning based Malware Detection in Cloud Environment using Clustering Approach,2020

Bedatrayee Ghosh, Priyanka Parimi and Rashmi Ranjan Rout,Improved Attribute-Based Encryption Scheme in Fog Computing Environment for Healthcare Systems,2020

Lingam Greeshma, Rashmi Ranjan Rout, DVLN Somayajulu, Sajal K. Das,Social Botnet Community Detection: A Novel Approach Based on Behavioral Similarity in Twitter Network Using Deep Learning,2020

Sonowal, A. Idupulapati, D. Booravilli, P. Parimi and Rashmi Ranjan Rout,An Improved Model for Dynamic Opinion Updates in Online Social Networks,2020

Hala Sadek Ali, Rashmi Ranjan Rout, Priyanka Parimi, Sajal K. Das,Real-Time Task Scheduling in Fog-Cloud Computing Framework for IoT Applications: A Fuzzy Logic-based Approach,2021

Ramakant Kaurav, Rashmi Ranjan Rout, Satish Vemireddy,Blockchain for Emergency Vehicle Routing in Healthcare Services: An Integrated Secure and Trustworthy System,2021

Sumanth Naga, R.N Likith, U.S.N.Raju,Content Based ImageRetrieval by using Different CNNs,AICTE sponsored National E-Conference on Advances in Computer Vision, Artificialintelligence and Computer Applications (NECACAC-2020), 28th November 2020.

Aditya Narayan Singh, Jose Mrudula, Ritik Pandey, Sujit Das,A Comparative Study of Four Genetic Algorithm based Crossover Operators for Solving Travelling Salesman Problem,Proceedings of International Conference on Advances in Systems, Control and Computing (AISCC), Jaipur, February 27-28, 2020

Sanjib Kumar Nayak, Sanjaya Kumar Panda, Satyabrata Das and Sohan Kumar Pande,A Renewable Energy-Based Task Consolidation Algorithm for Cloud Computing,Electric Power and Renewable Energy Conference, LNEE, NIT Jamshedpur, 29th and 30th May 2020

Sanjib Kumar Nayak, Sanjaya Kumar Panda and Satyabrata Das,Renewable Energy-Based Resource Management in Cloud Computing: A Review,First International Conference on Advances in Distributed Computing and Machine Learning, VIT Vellore, 30th and 31st January 2020

Santosh Kumar Sahu, Durga Prasad Mohapatra and Sanjaya Kumar Panda,A Self-Trained Support Vector Machine Approach for Intrusion Detection,First International Conference on Advances in Distributed Computing and Machine Learning, VIT Vellore, 30th and 31st January 2020

Sunkuru Gopal Krishna Patro, Brojo Kishore Mishra, Sanjaya Kumar Panda, Raghvendra Kumar and Atithee Apoorva,Hybrid Social Recommender Systems for Electronic Commerce: A Review,International Conference on Computer Science, Engineering and Applications, GIET, Gunupur, 13th and 14th March 2020

Arpita Dutta, Sangharatna Godboley,MSFL: A Model for Fault Localization Using Mutation-Spectra Technique,In: Przybyłek A., Miler J., Poth A., Riel A. (eds) Lean and Agile Software Development. LASD 2021. Lecture Notes in Business Information Processing, vol 408. Springer, Cham.

https://doi.org/10.1007/978-3-030-67084-9_10

Sangharatna Godboley,Optimal MC/DC Test Case Generation,2nd Software Engineering Research in India (SERI) – 2020, Online Event, 9 - 11 July, 2020

Sangharatna Godboley, Jaffar, Joxan, and Rasool Maghareh,Verifying Reactive Systems via Symbolic Execution with Incremental Deepening,9th Rigorous Examination of Reactive Systems (RERS)-2020, Greece

Debanjan Pathak, U.S.N.Raju,Sukhdev Singh,G Naveen,K. Anil,Content Based Image Retrieval Using Statistical Color Occurrence Feature on Multiresolution Dataset,International Conference, FICTA 2020, 4th-5th January 2020, NIT Surathkal, India

Sweta Panigrahi, U.S.N.Raju,Pranay Raj R, Sindhu Namulamettu Vishnupriya Thanda,Pedestrian Detection: Unification of Global and Local Features,International Conference on Innovations in Computational Intelligence and Computer Vision, ICICV 2020, Manipal University Jaipur, 17th-19th January 2020.

Koratamaddi, P., Wadhwani, K., Gupta, M., Sanjeevi, S.G., A Multi-Agent Reinforcement Learning Approach for Stock Portfolio Allocation,ACM International Conference Proceeding Series, 2020, pp. 410

Shalini, P.V., Radha, V., Sanjeevi, S.G.. DDoS Attack Detection in SDN Using CUSUM,Lecture Notes on Data Engineering and Communications Technologies, 2021, 56, pp. 301–309

Funded Research Projects

Research R&D Projects (2 New Sanctioned)

"Dynamic and Static Security Analysis of Large Power System using High Performance" Dr. Ram Krishan, Dr. Dileep, **Dr. Sanjaya Kumar, Dr. Venkateswara Rao K**, NIT/EED/DRP/SERB/2020/, Budget: 45.58 Lacs, NSM-DST, 2 Years

"Blockchain-Enabled Digital Identity and Authentication for Dynamic KYC (Know Your Customer) in Banking and Finance" Dr. Rakesh Tripathi (Dept. of IT, NIT Raipur), **Dr. Balaprakash Rao**, from PRAYAS scheme of Technology Incubation Hub (TIH) of National Mission on Interdisciplinary Cyber Physical Systems, IIT Bhilai for INR 8.3 Lakhs.

Research R&D Projects (Ongoing)

"Desease prediction based on various pattern recognisation using Neural Networks"**Dr Raju Bhukya**, EEQ/2019/000132,Budget INR 3050000, SERB, Duration 3 years.

S. No.	Title	Total Amount sanctioned	Funding agency and Project No.	Installment 1,2018-2019	Installment 2, 2019-2020	Installment 3, 2020-2021
1	Dynamic and Static Security Analysis of Large Power System using High Performance	45.58 Lakhs	NSM-DST and NIT/EED/DRP/SERB/2020/	-	-	45.58 Lacs
2	Blockchain-Enabled Digital Identity and Authentication for Dynamic KYC (Know Your Customer) in Banking and Finance	8.3 Lakhs	PRAYAS scheme of Technology Incubation Hub (TIH) of National Mission on Interdisciplinary Cyber Physical Systems, IIT Bhilai	-	-	-
3	Desease prediction based on various pattern recognisation using Neural Networks	30.5 Lakhs	SERB And EEQ/2019/000132	-	17.0 Lakhs	-

Research Student Project (1 New Sanctioned)

- A project titled "Masked face detection" under "Student innovation program" by ARTPARK team of IISC Bangalore was granted to Mr. Vivek Dala.

SERB-VIGYAN:

- Dr. M. Srinivas received a grant to conduct online skill development program from SERB under Advance for Accelerate Vigyan track.

Patents (Filed, Published, Granted and Licensed)

a) Filed:

- **Dr. U. S. N. Raju** and Team "Journal Number-46/2020, Journal Date-13/11/2020- IPO", An Electronic-Filling of Deposit and Withdrawal Form (E-FDWF)Device for Visually Impaired and Illiterate People in Banks, 2020 (Filed). IPO.
- **Dr. U. S. N. Raju** and Team, "No. 202141020520", A variational auto-encoder convolutional neural network (VAE-CNN) model to identify the prevalence of diabetic retinopathy disease, 2021 (Filed). IPO.

b) Published: Nil

c) Granted:

- **Dr. Kadambari** and Lavanya Madhuri, "Acceleration of incremental learning and decremental unlearning of Support vector machines" is granted to, faculty CSE along with her PhD student in April 2021 (Granted). Australia PTO.

d) Licensed: Nil

Book Chapters

- D. Himaja, and T. Maruthi Padmaja, and **P. R. Krishna**. "A Survey of Class Imbalance Problem on Evolving Data Stream." In Data Preprocessing, Active Learning, and Cost Perceptive Approaches for Resolving Data Imbalance. edited by Rana, Dipti P., and Rupa G. Mehta, 23-41. Hershey, PA: IGI Global, 2021. http://doi:10.4018/978-1-7998-7371-6.ch002.
- K. Chaitanya, **DVLN Somayajulu**, **P. R. Krishna**, Gender based Classification on e-Commerce Big Data, In: Big Data Analytics, IET Handbooks, 2021.
- Paleti Lakshmikanth, J V R Murthy**, P. R. Krishna**, On Recommender Systems with Big Data, In: Big Data Analytics, IET Handbooks, 2021.
- Sai Ganesh, Chnni Dheeraj, **R. Padmavathy**, A Deep Learning Framework to Preserve Privacy in Federated (Collaborative) Learning, Artificial Intelligence for Cyber Security: Methods, Issues and Possible Horizons or Opportunities, Studies in Computational Intelligence, Vol972, Springer, 2021.
- Peeyush joshi and **Sushil Kumar**, Single image reflection removal using deep learning,Internet of Multimedia Things (BOOK Chapter), 2021.

Conferences, workshops, FDPs, Webinars organized

Faculty members from the Department ofCSE, in association with Electronics and ICT Academy, NIT Warangal organised a total number of **14** FDPs. Also, a total **26** events have been organized in association with the Centre for Continuing Education, NIT Warangal. The details are given below:

E&ICT:

Prof. R. B. V. Subramaanyam, organised Data Science for All - Summer Course 2020 , Dept. of CSE, NIT Warangal, 27th July, 2020,8th August, 2020,62

Dr. R. Padmavathy, Dept. of CSE, NIT Warangal & Dr. P. Sreenu, Dept. of CSE, Vishnu Institute of Technology (Autonomous), Vishnupur, Bhimavaram, organised Security in Distributed Machine Learning, 18th August, 2020,28th August, 2020,50

Dr. Rashmi Ranjan Rout & Dr. Sanjaya Kumar Panda, Dept. of CSE, NIT Warangal, organised Cloud and Fog Computing Platforms for Internet Of Things Applications, 16th December, 2020,23rd December, 2020,58

Dr. M. Srinivas, Dept. of CSE, NIT Warangal & Dr. M. Kavitha, Dept. of CSE, Vel Tech Rangarajan Dr.Sagunthala R & D Institute of

Science and Technology, Chennai, organised Data Science, 2nd January, 2021,11th January, 2021,62

Dr. R. Padmavathy, Dept. of CSE, NIT Warangal & Dr. N. R. Rajalakshmi, Dept. of CSE, Vel Tech Rangarajan Dr.Sagunthala R & D Institute of Science and Technology, Chennai, organised Cyber Security, 2nd January, 2021,11th January, 2021,57

Dr. Sanjaya Kumar Panda, Dept. of CSE, NIT Warangal, organised Python Boot Camp, 22nd February, 2021,5th March, 2021,22

Dr. Sanjaya Kumar Panda & Dr. Manjubala Bisi, Dept. of CSE, NIT Warangal, organised Optimization Techniques for Engineering Applications - Online Mode, 7th April, 2021,15th April, 2021,71

Prof. R. B. V. Subramaanyam, Dept. of CSE, NIT Warangal, organised Data Science For All Spring Course 2021 - Online Mode, 12th April, 2021,23rd April, 2021,36

Prof. R. B. V. Subramaanyam, Dept. of CSE, NIT Warangal & Dr. C. Chandrasekhar, Dept. of ECE, Sri Venkateswara Engineering College, Tirupati, organised Artificial Intelligence and Deep Learning, 4th May, 2021,13th May, 2021,53

Dr. M.Sandhya & Dr. Balaprakasa Rao Killi, Dept. of CSE, NIT Warangal, organised Data Science and its Applications with Python - Online Mode, 10th May, 2021,19th May, 2021,58

Dr. M. Srinivas, Dept. of CSE, NIT Warangal & Dr. V. Muthulakshmi ,Dept. of IT, St. Joseph's College of Engineering, Chennai, organised Data Science - Online Mode, 15th May, 2021,24th May, 2021,53

Dr. Manjubala Bisi, Dept. of CSE, NIT Warangal & Dr. N. Gayatri, Dept. of CSE, Kakatiya Institute of Technology & Science Warangal, organised Machine Learning for IoT Applications - Online Mode, 7th June, 2021,15th June, 2021,52

Dr. Venkateswara Rao Kagita & Dr. Balaprakasa Rao Killi, Dept. of CSE, NIT Warangal, organised Machine Learning and Deep Learning with Python - Online Mode, 21st June, 2021,30th June, 2021,66

Dr. M. Srinivas, Dept. of CSE, NIT Warangal & Mr. K. Srinivasa Charkravarthy, Dept. of CSE, Vasavi College of Engineering (Autonomous), Hyderabad, organised Deep Learning and AI Applications - Online Mode, 21st June, 2021,30th June, 2021,69

CCE:

Dr.Raju Bhukya,CSE, organised Internet of things for Intelligent Systems, 20 - 24 July, 2020,82.

Dr.Sushil Kumar,CSE, organised Big Image data processing using deep learning techniques, 27 - 31 July, 2020,108,Dr.U.S.N.Raju

Dr. Raju Bhukya, CSE, organised Internet of Things and Machine Learning, 24 - 28 August, 2020,55.

Dr. M Srinivas, CSE, organised Machine Learning Methods in Real Time Applications 24 - 28 August, 2020,70.

Dr.M.Sandhya, CSE, Dr. P. Shyam, Biotechnology, organised Current trends in Data Analytics through hands on Experience August 31 to September 4,2020,106.

Dr. B. K. N. Srinivasarao, ECE, **Dr. E. Suresh Babu,** CSE, organised Machine learning for IoT Applications 7 - 11 September, 2020,59.

Dr. K.Venkateshwar Rao, Dr. Balaprakasa Rao Killi, CSE organised Deep learning Applications,14 - 18 September, 2020,70.

Dr. Raju Bhukya, CSE, Prof. Gautam D.Makwana, EC, organised Internet of Things with Machine Learning/Artificial Intelligent 14 - 18 September 2020,180.

Dr. Manjubala Bisi Dr. Sanjaya Kumar Panda,CSE, organised Soft Computing Techniques for Emerging Applications 05 - 09 october 2020,96.

Dr. Raju Bhukya CSE, organised Internet of things and Machine Learning,26 - 30 October 2020,50.

Dr. Raju Bhukya, CSE, organised Machine Learning for Intelligent Systems 01 - 05 December, 2020,60.

Dr. Venkateswara Rao Kagita Dr. M. Sandhya,CSE, organised Machine Learning for Data Science using Python 14 - 23 December, 2020,70.

Dr. Ramalingaswamy Cheruku Dr. Ilaiah Kavati,CSE organised Machine Learning Models for Disease Diagnosis: A Practical Approach 20 - 24 December, 2020,51.

Dr. Raju Bhukya Dr. Prabhakar M,CSE, NITW. School of CSE, REVA University – Bangalore organised Internet of Things and its Applications 21 - 25 December, 2020,55.

Dr. Raju Bhukya, CSE, organised Next Generation Systems - Machine learning &

Deep Learning Applications 18 - 22 January, 2021,45.

Dr. M. Sandhya Dr. Y. Sreenivasa Rao,CSE & Mathematics, organised Online Continuing Education Program on "Data Analytics with Python" 8 - 12 Feb, 2021,80.

Dr. Venkateswara Rao Kagita Dr. M. Sandhya, CSE, organised Machine Learning for Data Science using Python 1 – 10 March, 2021,67.

Dr. SujitDas Dr. M. Srinivas, CSE organised Machine Learning and Optimization for Uncertain Decision Making 5 - 9 March, 2021,53.

Dr. Raju Bhukya, CSE, organised Research Scope in Artificial Intelligence of Things 08 - 12 Mar, 2021,26.

Dr. Raju Bhukya, CSE, organised Machine Learning & Deep Learning,29 Mar - 2 Apr 2021,65.

Dr. Venkateswara Rao Kagita Dr.Balaprakasa Rao Killi, CSE organised Machine Learning with Python 12 – 16 April, 2021,69.

Dr. Earnest Paul Ijjina, CSE, organised Deep Learning and its Applications 26 - 30 April, 2021,55.

Dr. Raju Bhukya, CSE, organised Machine Learning & Cognitive Computing 10 -14 May, 2021,68.

K.Shivashankar HOD,Civil CSE,ECE,EEE, Kasireddy Narayanreddy College of Engineering & Research, organised AI & ML,26 - 30 April, 2021,74.

Dr. Raju Bhukya, CSE, organised Artificial Intelligence & Machine Learning 24 - 28 May, 2021,82.

Dr.Balaprakasa Rao Killi Dr. Earnest Paul Ijjina Dr. Venkateswara Rao Kagita, CSE organised Python for Scientific Computing 7 – 11 June, 2021,88

Department Sponsored:

Dr. Sangharatna Godboley organised a national level workshop13th Recent Trends in Software Testing (RTST-2020) in Dept. ofCSE, NIT Warangal.

Guest Talks/webinars delivered

Dr. Sushil Kumar,Metaheuristics for Image Segmentation,St. Martin's Engineering College, Dhulapally, Secunderabad, T.S, India,21/06/2021

Dr. Sushil Kumar,Metaheuristics for Image Segmentation,St. Martin's Engineering College, Dhulapally, Secunderabad, T.S, India,22/05/2021

Dr. Sushil Kumar,Metaheuristics for Image Segmentation,St. Martin's Engineering College, Dhulapally, Secunderabad, T.S, India,26/05/2021

Dr. Sushil Kumar,Applications of Metaheuristics in Machine Learning and Computer Vision,Big Image Data Processing using Deep Learning Techniques, NIT Warangal,30/07/2020

Dr. Sushil Kumar,Applications of Metaheuristics,E&ICT NIT Warangal,Jan-2021

P. Venkata Subba Reddy,NP-Completeness of Some Domination Problems,Dayanand Sagar University, Bengaluru,26 February2021

P. Venkata Subba Reddy,Data Structures : Overview,KSRM College of Engineering, Kadapa,19 February 2021

P. Venkata Subba Reddy,Graph Theory and Algorithms : Current Research Trends,KITS Waranga,29 July 2020

P. Venkata Subba Reddy,Recurrence Relations and Analysis of Algorithms,Sri Kanyaka Parameswari Arts and Science College for Women, Chennai,7-10-2020

P. Venkata Subba Reddy,Asymptotic Analysis of Algorithms,Coimbatore Institute of Technology, Coimbatore,8 July 2020

Dr Sujit Das,Optimization Techniques and its real life applications,FDP on Data Science organized by E&ICT Academy, NIT Warangal and St. Joseph's College of Engineering, Chennai,May 23, 2021

Dr Sujit Das,Application of Data Science for Industry 4.0,Workshop on Industrial Mathematics with Data Science for Industry 4.0 organized by SRM Institute of Science and Technology, Chennai,04-30-2021

Dr Sujit Das,Introductions to Fuzzy logic,FDP on Optimization Techniques for Engineering Applications organized by E&ICT Academy, NIT Warangal,April 12, 2021

Dr Sujit Das,Application of Fuzzy logic,FDP on Optimization Techniques for Engineering Applications organized by E&ICT Academy, NIT Warangal,April 14, 2021

Dr Sujit Das,Application of Optimization Techniques,FDP on Machine learning and Optimization for uncertain decision making organized by CCE, NIT Warangal,March 9, 2021

Dr Sujit Das,Evolutionary Computation and Applications,FDP on Data Science organized by E&ICT Academy, NIT Warangal and Veltech University, Chennai,January 9, 2021

Dr Sujit Das,Overview of fuzzy logic,FDP on Artificial inteligence applications on software engineering, E & ICT Academy, NIT Warangal,July 9, 2021

Dr Sujit Das,Uncertain decision making using fuzzy sets and its extensions,STTP organized by MAKAUT, West Bengal on Tools and Techniques for Machine Learning and its Applications,July 6, 2021

Dr. Sangharatna Godboley,Protecting Software Vulnerabilities from Hackers Using Fuzzing ,TEQIP-III Sponsored One Week National Workshop on Offensive and Defensive Aspects of Cyber Security (NWODACS-2020) Parala Maharaja Engineering College(Govt.), Berhampur, India,16/12/2020

Dr. Sangharatna Godboley,Software Testing Methodologies for Medical Instruments,COMPUTER SOCIETY OF INDIA (CSI) SPONSORED ONE WEEK ONLINE WORKSHOP ON INTERNET OF MEDICAL THINGS: CHALLENGES AND SOLUTIONS,22/08/2020

Dr. Sangharatna Godboley,Graphics Algorithms for Drawing Circle in Any Quadrant,G. H. Raisoni Institute of Engineering and Technology, Nagpur, India,17/10/2020

Dr. Sangharatna Godboley,Graphs Terminologies and Traversals,G. H. Raisoni Institute of Engineering and Technology, Nagpur, India,20/10/2020

Dr. Sangharatna Godboley,Verifying Reactive Systems via Symbolic Execution with Incremental Deepening,13th National Workshop on Recent Trends in Software Testing (RTST–2020), Dept. of CSE, NIT Warangal,22/12/2020

Dr.R.Padmavathy,Elliptic curve and Lattice based public key cryptography for Blockchain technology,Workshop on Recent Trends in Information Security and Blockchain Technology (ISBT-21), NIT Hamirpur,29/04/2021

FDP on Quantum Computing, ACE Engineering college,

Dr. Venkateswara Rao Kagita,Data Science and future technology,BITS, Warangal,08/10/2020

Dr. Venkateswara Rao Kagita,Introduction to Deep Learning,Gudlavalleru Engineering College,30/12/2020

Dr. Venkateswara Rao Kagita,Deep LEarning,KSRM College of Engineering, Kadapa,25/01/2021

Dr. Venkateswara Rao Kagita,Regression Analysis,Vardamana College of Engineering, Hyderabad,16/06/2021

Dr. Venkateswara Rao Kagita,Regression Analysis and Applications,IIIT Dharwad,18/05/2021

Dr. Venkateswara Rao Kagita,Data Science and applications,SIET,15/12/2020

Dr. Venkateswara Rao Kagita,Hands on Session Regression Analysis,JNTUH,20/11/2020

Dr. Venkateswara Rao Kagita,Python Data Structures,Bhilai Institute of Technology, Durg,26, 27/05/2021

Dr Sujit Das,Applications of AI and Data Science,FDP on AI & Data Science: The Future Of Tomorrow organized by Rajiv Gandhi

Institute of Technology, Mumbai,August 6, 2021

Dr Sujit Das,Optimization Techniques and Applications ,Bapatla Engineering College, Bapatla,August 19, 2021

Dr Sujit Das,Evolutionary computation and applications ,Rajarambapu Institute of Technology, Maharashtra,August 30, 2021

Dr Earnest Paul Ijjina,Auto Encoders and Computer Vision Applications,Vasavi College of Engineering, Hyderabad,June 29 2021

Dr Earnest Paul Ijjina,Auto Encoders and real time Applications,Malla Reddy Engineering College, Hyderabad,July 7 2021

Dr Earnest Paul Ijjina,Human Action Recognition in Video using Deep Learning,Potti Sriramulu Chalavadi Mallikarjuna Rao College of Engineering and Technology,July 8 2021

Dr Earnest Paul Ijjina,Recent Trends in Artificial Intelligence and Machine Learning and its Applications,Theema College of Engg., Mumbai,July 9 2021

Dr Earnest Paul Ijjina,Auto Encoders and Applications,University College of Engg Kakinada (A), JNTU Kakinada,September 30 2021

Dr Earnest Paul Ijjina,Computer Vision Applications,Maulana Azad National Urdu University, Hyderabad,October 30 2021

Dr M. Srinivas,OER, Content Development, MOOCs and MOODLE,Commissionerate of Collegiate Education, Government of Andhra Pradesh,7/8/2020

Dr M. Srinivas,MOOCs & e-content Development,UGC-Human Resource Development Centre (HRDC), Guru Nanak Dev University, Amritsar,5/8/2020

Dr M. Srinivas,Machine Learning in Real Time Applications,NIT Warangal,25/8/2020

Dr M. Srinivas,Deep Learning and Applications",,NIT Warangal,16/9/2020

Dr M. Srinivas,ML in Cyber-physical Systems,NIT AP, Tadepalligudem,22/9/2020

Dr M. Srinivas,Building Intelligence Applications with Deep learning using pytorch,Rajalakshmi Institute of Technology, Chennai,5/10/2020

Dr M. Srinivas,Support Vector Machines,LENDI Institute of Engineering and technology, Andhra Pradesh,4/11/2020

Dr M. Srinivas,Dimensionality Reduction,UGC-Human Resource Development Centre, JNTUH,10/11/2020

Dr M. Srinivas,Machine Learning,Manav Rachna International Institute of Research & Studies, Faridabad, Haryana,24/11/2020

Dr M. Srinivas,Machine Learning and its Applications in Image Processing,Indira Gandhi Delhi Technical University for Women, Delhi,26/11/2020

Dr M. Srinivas,Introduction to Machine Learning,Jyothishmathi Institute of Technology and Science, Karimnagar,14/12/2020

Dr M. Srinivas,Python Based Machine Learning Foundations to Applications,Anurag Engineering College Kodada, Telangana,16/12/2020

Dr M. Srinivas,Introduction to Machine Learning,Vel Tech Rangarajan DrSagunthala R & D Institute of Science and Technology, TamilNadu,5/1/2021

Dr M. Srinivas,Development & Editing of Audio material,UGC-Human Resource Development Centre (HRDC), Guru Nanak Dev University, Amritsar,6/1/2021

Dr M. Srinivas,Introduction to Supervised and Unsupervised Techniques,NIT Warangal,9/2/2021

Dr M. Srinivas,Artificial Intelligence, Machine Learning and Deep Learning,GIET University, Odisha,24/2/2021

Dr M. Srinivas,Machine Learning and Applications,NIT Warangal,5/3/2021

Dr M. Srinivas,Segmentation Methods,VJIT Hyderabad,9/3/2021

Dr M. Srinivas,Unsupervised Learning and Clustering Techniques,UGC Human Resource Development Center, JNTUH CEH, Hyderabad,16/3/2021

Dr M. Srinivas,Deep Learning Models,NIT Warangal,28/4/2021

Dr M. Srinivas,Introduction to Machine Learning and Unsupervised Methods,LBS Institute of Technology for Women, Trivandrum, Kerala,17/5/2021

Dr M. Srinivas,Introduction to Machine Learning and Supervised Methods,St. Joseph's College of Engineering, Chennai,18/5/2021

Dr M. Srinivas,Deep Learning and AI Applications,Vasavi College of Engineering, Hyderabad,23/6/2021

Dr Sujit Das,Data Science, AI and Soft Computing: An Introduction,SRMIST Ramapuram,18/09/2021

Dr Sujit Das,Uniersal Human Values,Hoogly Colllege of Engineering and Technology ,24/09/2021

Dr Sujit Das,Optimization Methods and Applications,MNNIT Allahabad,30/09/2021

Dr Sujit Das,Optimization Methods and Applications,Jawaharlal Nehru Technological University Anantapur,29/10/22021

Dr Sujit Das,Optimization Methods and Applications,Sabarmati University, Gujarat,25/10/2021

Dr Sujit Das,Optimization Methods and Applications,Maulana Azad National Urdu University, Hyderabad,30/10/2021

Dr Sujit Das,Optimization Methods and Applications,VR Siddhartha Engineering College, Kanuru,23/10/2021

Dr. Sangharatna Godboley,Verifying Reactive Systems via Symbolic Execution with Incremental Deepening,,Software Engineering Research in India (SERI), IIT Ropar, ,2021

Dr. Sangharatna Godboley,A tutorial session on Tracer-X, ,Tutorial, 14th Innovations in Software Engineering Conference (ISEC),,2021

Dr. Sangharatna Godboley,Machine Learning for Fault Localization,,GHRIBM Jalgaon,2021

Dr. Sangharatna Godboley,MEFL: A hybrid approach for Fault Localization using Mutation-Ensemble technique, ,IIEST Shibpur,,2021

Dr. Sangharatna Godboley,Software Testing Methodologies,,BIET Hyderabad,,2021

Dr. Sangharatna Godboley,Introduction to Software Testing, ,GHRIET Nagpur,,2021

Dr. Sangharatna Godboley,Graph Theory,,Department of Data Science, GHRIET Nagpur,,2021

Dr. Sangharatna Godboley,Graph Theory,,Department of Computer Science and Engineering, GHRIET Nagpur, ,2021

Dr. Sangharatna Godboley,MEFL: A hybrid approach for Fault Localization using Mutation-Ensemble technique, ,Artificial Intelligence Applications in Software Engineering, E&ICT academy, NIT Warangal,,2021

Dr. Sangharatna Godboley,Protecting Software Vulnerabilities from Hackers Using Fuzzing, Artificial Intelligence Applications in Software Engineering, ,E&ICT academy, NIT Warangal,,2021

Dr. Sangharatna Godboley,SQL in Python, Python for scientific computing, ,E&ICT academy, NIT Warangal,,2021

Dr. Sangharatna Godboley,Testing of Smart Contracts, AICTE Training and learning (ATAL) academy sponsored Five-day Online Faculty Development Program on Emerging Techniques and Applications in IOT,,Veer Surendra Sai University of Technology, Burla 2021,2021

Dr. Sangharatna Godboley,Testing of Smart Contracts ,Department of Computer Science and Engineering, GIET University, Gunupur, E & ICT FDP on Convergence of AI,

ML, and DS for Engineering Applications, 2021,2021

Dr. Sangharatna Godboley,MEFL: A hybrid approach for Fault Localization usingMutation-Ensemble technique, ,Department of Computer Science and Engineering, GIET University, Gunupur, E & ICT FDP on Convergence of AI, ML, and DS for Engineering Applications, 2021,2021

Dr. Sangharatna Godboley,MEFL: A hybrid approach for Fault Localization usingMutation-Ensemble technique, ,E & ICT FDP on AI and ML, NITW, 2021,2021

Dr. Sangharatna Godboley,Optimal MC/DC Test Case Generation, ,Software Engineering Research in India (SERI), IIIT Hyderabad, ,2020

Dr. Sangharatna Godboley,Program Analysis and Testing, ,IEEE Computer Society Student Branch Chapter IIT Kharagpur, ,2020

Dr. Sangharatna Godboley,Optimal MC/DC Test Case Generation,,PLV seminar, SOC, NUS Singapore, ,2020

Dr. Sangharatna Godboley,Program Analysis & Testing, ,St. John College of Engineering and Management, Palghar, ,2020

Dr. Sangharatna Godboley,Graphics Algorithms for Drawing Circle in any Quadrant along with ellipse generation, ,GHRIET Nagpur, ,2020

Dr. Sangharatna Godboley,Graph Terminologies and Traversals, ,GHRIET Nagpur,,2020

Dr. Sangharatna Godboley,Structural Design Pattern and its types, ,GHRIET Nagpur,,2020

Dr. Sangharatna Godboley,Protecting Software Vulnerabilities from Hackers Using Fuzzing, ,TEQIP-3 Sponsored One Week National Workshop on Offensive and Defensive Aspects of Cyber Security, PMEC,,2020

Awards/ Recognitions/ Achievements

Recognitions (Memberships):

P Venkata Subba Reddy,Academy of Discrete Mathematics and Applications (ADMA),Life Member
Dr.Balaprakasa Rao Killi,IEEE,Senior Member,2021-2022
Dr Sujit Das,IEEE,member,2020-2021
Dr Sujit Das,ORSI,Life Member,2019
Dr. Sangharatna Godboley, IEEE,member,2020-2020
Dr. Sangharatna Godboley,ACM,member,2020-2020
Dr. Sangharatna Godboley,INSTICC,member,2021
Dr.U.S.N.Raju,IEEE,Senior Member,2021-2022
Dr. Earnest Paul,IEEE,Member,2021-2022
Dr. Earnest Paul,ACM,Member,2021-2022
Dr. M Srinivas,IEEE,Member,2021-2022
Dr. M.Sandhya,IEEE,Member,2021-2022
Dr. Balarprakasa Rao Killi,IEEE,Senior Member,2021-2022

Achievements

Dr. Sangharatna Godboley,Developed software testing tool Tracer-X achieved 2nd Rank in RERS (Rigorous Examination of Reactive Systems (RERS))-2020, (a world level Software Testing Tool Competition co-located with ISOLA2020 Greece),2020
Dr. Sangharatna Godboley,Developed software testing tool Tracer-X achieved 6th Rank in TestComp-2021, 3rd Intl. Competition on Software Testing held at FASE 2021 in Luxembourg. (World level competition),2020.
Dr. Sangharatna Godboley,Received all three ACM badges **Artifact Available, Functional, and Reusable Badges** in Artefact Evaluation track at 30th ACM SIGSOFT International Symposium on Software Testing and Analysis (ISSTA), 2021(Core-A) for the accepted paper "Toward Optimal MC/DC Test Case Generation".,2021

PhD Research guidance (Completed during the academic year)

- **Sudarshan Chakravarthy** (Roll No.701432), Title: "Energy Efficient Resource Management in Cloud Computing", Supervisors: Dr. Ch. Sudhakar and Prof. T. Ramesh
  Morampudi Mahesh Kumar (Roll No. 701634), Title: "ReSPIRe: Reliable, Secure and Privacy-preserving Iris Remote

Authentication Techniques", Supervisors: Dr. USN Raju and Dr. MVNK Prasad.

P. Lalitha Kumari (Roll. No. 701368), Title: "Algorithms for Mining High Utility Itemsets in Transactional Databases", Supervisor: Prof. S.G.Sanjeevi.

L. Greeshma (Roll. No. 716174), Title: "Design of Social Bot Detection and Trust Models for Online Social Networks", Supervisors: Dr. Rashmi Ranjan Rout andProf. DVLN Somayajulu.

R. Phani Bhushan (Roll No. 701316), Title: "Some Efficient Storage Structures for Spatial Raster Data on Commodity Clusters" , Supervisor: Prof. D V L N. Somayajulu and Dr. S Venkataraman.

Rayanoothala Praneetha Sree (Roll No.716172), Title: "Some Approaches for Mining Various Patterns and Influential Trajectories from Spatio-Temporal Data", Supervisors: Dr S Ravichandra and Prof. DVLN Somayajulu.

Jakkepalli Pavan Kumar (Roll No. 715073), Title: "Algorithmic Aspects of Variants of Domination in Graphs", Supervisor: Dr. P. Venkata Subba Reddy

Best student papers and other achievements

Best Student Research Paper Award

- **Nishant Kumar** (M.tech), Vishnu Kumar (Ph.D. Scholar), P. R. Krishna "A Visual Co-occurrence Driven Recommender System" got Best Student Research Paper Award in the IEEE Cloud Computing in Emerging Markets 2021 (IEEE CCEM 2021) conference, virtually hosted from New Jersey.

Participation and achievements of B.Tech. CSE Students

- Hacktoberfest-2021
- Devathon by WSDC
- Ideathon by IG (Idea got selected for incubation)
- Design-a-thon by CSEA (3rd place and active participation from 2nd year students)
- CASE STUDY by IG (2nd place)
- 30 days of Google Cloud (10+ students completed both the tracks and are eligible for prize)
- HACKON WITH AMAZON
    - Achievement : Top 10 National Finalist
    - Prize : Selected for Intern at Amazon
    - Team
        - 1. Mohd Sufiyan Ansari (Also got internship from DeShaw)
        - 2. Chaitanya Hardikar
        - 3. Ashiqa Rahman
- VERSION BETA 2.0
    - Hackathon organised by MANIT BHOPAL
    - Achievement : Shortlisted for Top 7 teams and team got appreciation
    - Team
        - 1. Mohd Sufiyan Ansari
        - 2. Anshuman Mishra- ECE
- Azure Developer League Hackathon
    - Deekshitha Tirumala participated and qualified first phase (shortlisted in prototype phase)
- Dare2Compete Hackathon
    - Apurv Jain (Roll No.197211) Ranked 38 among 6701 participants

Details of students joined in higher educational institutes

- **Sujeet Kumar**, M.Tech. CSE (2019-2021), joined Ph.D. (CSE) at IIT Khargpur
- Two B.Tech. Students joined MS program @ University of Alberta and Purdue University

Please fill the table (**All student information**) for NIRF application

S. No.	Roll No.	Name of the Student	Department	Placement Details	Higher Studies (Yes/No)
1	197522	Sujeet Kumar, M.Tech. CSE	CSE		Ph.D. at IIT Kharagpur

Department Outreach Activities

CONFERENCES / SYMPOSIA SESSIONS CHAIRED

Dr. sushil kumar,ICIDC-2020,Shri Ramdeobaba College of Engineering and Management, Nagpur,27-28 Nov-2020
Dr. sushil kumar,ICCCIS-2021,Sharda University, Greater Noida, Uttar Pradesh,19-20 Feb 2021
Dr. sushil kumar,ICCIKE-2021,Amity University Dubai,17-18 March 2021
Dr. Sangharatna Godboley,International Conference on Intelligent Systems,Data Science and Computing [ICIDC-2020] ,CSE, RCOEM, Nagpur (INDIA),27-28, November 2020
Dr. Sangharatna Godboley,PROJECTS of 10th PIC-2021 (ICDCIT-2021),KIIT Bhubaneswar, 08-01-2021

Department Association/Students Clubs Activities

Computer Science and Engineering Association (CSEA) CSEA has been functioning over the years in the department of Computer Science & Engineering with the objectives of promoting student activities for organizing and participating in co-curricular activities by the students of the Department. All the students of CSE department are members of CSEA. The events conducted by CSEA promote Organising capabilities and communication skills of students in addition to developing the technical knowledge. Executive Body of CSEA (Computer Science and Engineering Association) for the Academic Year 2018-2019.

DEPARTMENT OF BIOTECHNOLOGY

Brief History of the Department, Academic Programs

The Department of Biotechnology was established in 2006 with a B.Tech in Biotechnology program. In 2009, Ph.D in Biotechnology program was started and in 2020,M.Tech in Biotechnology program was started.

The department has highly qualified and committed faculty members who are well recognized and have expertise in diversified research fields of Biotechnology.

The department aspires to be a knowledge nerve center in Biotechnology Education, Research, Entrepreneurship and Industry outreach for creating sustainable infrastructure and enhancing the quality of life. This will be achieved by generating a specialized cadre of Biotechnology by imparting quality education and training to attain International standards in teaching and research with global linkages.



Faculty Details:

S. No.	Name of the Faculty Member and Designation	Highest Qualification	Research Interests	Photograph
1.	**Dr. Parcha Sreenivasa Rao** Associate Professor	Ph. D	Stem Cell Engineering, Metabolic Engineering, Enzyme Engineering and Downstream Processing	
2	**Dr.R.Satish Babu** Associate Professor	Ph. D	Nanobiotechnology,Bioprocess EngineeringEnvironmental BiotechnologyModeling and Simulation of BioprocessesMetabolic EngineeringBioinformatics	
3	**Dr. P Onkara Perumal** Associate Professor	Ph. D	Bioinformatics; Biofuels & Bioenergy	
4	**Dr. Korrapati Narasimhulu** Associate Professor **HOD**	Ph.D	Environmental Biotechnology,Modelling & Simulation of Bioprocesses,Biofuels & Bioenergy,Systems Biology	
5	**Dr. Amitava Bandhu** Assistant Professor	Ph.D	Studies on gene regulation in Mycobacteria,	

6	**Dr. B Rama Raju** Assistant Professor	Ph.D	Metabolic Engineering, Bio fuels and Biomaterials	
7	**Dr. V. Kohila** Assistant Professor	Ph.D	Protein Engineering, Computational Biology	
8	**Dr. Asim Bikas Das** Assistant Professor	Ph.D	Network system biology of large scale data; Signaling pathways in cancer	
9	**Dr. Urmila Saxena** Assistant Professor	Ph.D	Nanobiotechnology and Medical Biosensors	
10	**Dr. Prakash Saudagar** Assistant Professor	Ph.D	Molecular and Biochemical parasitology	

11	**Dr. P Shyam** Assistant Professor	Ph.D	Bioinformatics, Systems biology, Next Generation Sequencing, Molecular Modeling, Molecular Dynamics & Simulations, Drug Design and Discovery, Machine Learning, Data Science, Bigdata, High Performance Computing (HPC).	
12	**Dr. M Jerold** Assistant Professor	Ph.D	Biofuels; Biosorption; Wastewater Treatment; Bioprocessing; Adsorption; Algal Biotechnology ; Microbial Fuel Cell; Biosurfactant; Plant Tissue Culture; Biopolymer production; Organic acid production	
13	**Dr. P Anbumathi** Assistant Professor	Ph.D	Systems Biology; Mathematical Modeling and Simulation of Biological Processes; Fermentation Technology; Metabolic Engineering; Experimental Design and Analysis, History of Science, Evolution	
14	**Dr. D Rathnaprabha** Assistant Professor	Ph.D	Biotechnology, Plant Biotechnology(Various types Tissue Cultures) and Molecular biology, R-DNA.	
15	**Dr. Soumya Lipsa Rath** Assistant Professor	Ph.D	Computational Biophysics	

16	**Dr.Surajbhan sevda** Assistant Professor	Ph.D	Bioelectrochemical system, Biological Wastewater Treatment, Bioreactor Design, Fermentation Technology	
17	**Dr. Priya** Assistant Professor	Ph.D	Cell biology, epigenetics	
18	**Dr. Thyageshwar Chandran** Assistant Professor	Ph.D	Structural Biology	
19	**Dr. Chockalingam S** Assistant Professor	Ph.D	Cell Signalling and Cancer Biology	
20	**Dr. Ashish A Prabhu** Assistant Professor	Ph.D	Metabolic Engineering; Bioprocess Engineering; Biomass and Biorefinery; Therapeutic proteins/enzymes	

Journal Publications

Saroj, P., Manasa, P., & **Narasimhulu, K.** (**2021**) "Assessment and evaluation of cellulase production using ragi (Eleusine coracana) husk as a substrate from thermo-acidophilic Aspergillus fumigatus JCM 10253". ***Bioprocess and Biosystems Engineering***, *44*(1), 113-126. **(SCI, IF = 2.419).**

Saroj, P., Manasa, P., & **Narasimhulu, K.** . Optimization of xylanase production using ragi (Eleusine coracana) husk as a substrate by Aspergillus fumigatus JCM 10253 through response surface methodology. *Biomass Conversion and Biorefinery*, 2020, 1-11.

Surajbhan Sevda, Vijay Kumar Garlapati, Sunandan Naha, Mohita Sharma, Sreemoyee Ghosh Ray,T R Sreekrishnan, Pranab Goswami. Biosensing capabilities of bioelectrochemical systems towards sustainable water streams: Technological implications and future prospects. Journal of Bioscience and Bioengineering , 2021, 129 (6): 647 -656. https://doi.org/10.1016/j.jbiosc.2020.01.003

Sunandan Naha, Chetan Joshi, B Chandrashekhar, T R Sreekrishnan, Pranab Goswami & **Surajbhan Sevda.** Bioelectrosynthesis of organic and inorganic chemicals in bioelectrochemical system. ASCE's Journal of Hazardous, Toxic, and Radioactive Waste. , 2020, 24(2): 03120001 (ISBN No: 21535493) DOI: 10.1061/(ASCE)HZ.2153-5515.0000491.

Bahaa A Hemdan, Gamila E El-Taweel, Pranab Goswami, Deepak Pant, **Surajbhan Sevda**. The role of biofilm in the development and dissemination of ubiquitous pathogens in drinking water distribution systems: an overview of surveillance, outbreak and prevention. World Journal of Microbiology and Biotechnology, 2021. 37 (2), 1-18. https://doi.org/10.1007/s11274-021-03008-3

Shiv Prasad , Anoop Singh , Nicholas E. Korres , Dheeraj Rathore , **Surajbhan Sevda**, Deepak Pant. Sustainable utilization of crop residues for energy generation: A life cycle assessment (LCA) perspective. Bioresource Technology 2020, 303, 122964. https://doi.org/10.1016/j.rser.2020.109977

S Jindal, S Chockalingam, SS Ghosh, P Gopinath. Connexin and gap junctions: Perspectives from biology to nanotechnology based therapeutics. Translational Research. 2021, doi: 10.1016/j.trsl.2021.02.008.

Sarim Khan, Sankarakuttalam Chockalingam, Patit P Kundu, Gopinath Packirisamy. Fabrication of bimodal porous scaffold with enhanced mechanical properties using silanized sisal fibers for potential application in bone tissue engineering. Mater. Today Commun. 2020, 25: 101260

Sofia Maina, **Ashish A Prabhu**, Narisetty Vivek, Anestis Vlysidis, Apostolis Koutinas, Vinod Kumar, (2021). Prospects on bio-based 2, 3-butanediol and acetoin production: Recent progress and advances. Biotechnology Advances, 107783

Yassin Amraoui, **Ashish A Prabhu**, Vivek Narisetty, Frederic Coulon, Anuj Kumar Chandel, Nicholas Willoughby, Samuel Jacob, Apostolis Koutinas, Vinod Kumar, (2021). Enhanced 2, 3-Butanediol production by mutant Enterobacter ludwigii using Brewers' spent grain hydrolysate: Process optimization for a pragmatic biorefinery loom. Chemical Engineering Journal, 427, 130851.

Vivek Narisetty, **Ashish A Prabhu**, Khalid Al-Jaradah, Deeksha Gopaliya, Abeer H Hossain, Sunil Kumar Khare, Peter J Punt, Vinod Kumar, (2020). Microbial Itaconic acid Production from Starchy Food Waste by Newly Isolated Thermotolerant Aspergillus terreus Strain. Bioresource Technology, 125426.

Yogita Lugani, Rohit Rai, **Ashish A Prabhu,** Poonam Maan, Meenu Hans, Vinod Kumar, Sachin Kumar, Anuj K Chandel, RS Sengar, (2020), Recent advances in bioethanol production from lignocelluloses: a comprehensive review with a focus on enzyme engineering and designer biocatalysts. Biofuel Research Journal, 7, 267-1295.

Ashish A Prabhu, Ekkarin Bosakornranut, Yassin Amraoui, Deepti Agrawal, Frederic Coulon, Vivekanand Vivekanand, Vijay Kumar Thakur, Vinod Kumar, (2020). Enhanced xylitol production using non-detoxified xylose rich pre-hydrolysate from sugarcane bagasse by newly isolated Pichia fermentans. Biotechnology for biofuels, 13, 1-15

Ashish A Prabhu, RL Amaro, CSK Lin, F Coulon, Thakur Vk, Vinod Kumar (2020). Bioproduction of succinic acid from xylose by engineered *Yarrowia lipolytica* without pH control. Biotechnology for biofuels,13, 113.

Ashish A Prabhu, DJ Thomas, RL Amaro, GA Leeke, AM Vaya, C Verheecke-Vaessen, F Coulon, Vinod Kumar (2020) Biovalorisation of crude glycerol and xylose into xylitol by oleaginous yeast *Yarrowia lipolytica*. Microbial cell factory,19, 121.

Sumithra, V.S.P.K. Sankara Aditya Jayanthi, Hari Chandana Manne, Rashmika Gunda, **Urmila Saxena***, **Asim Bikas Das* (2020)** Antibody-based biosensor to detect oncogenic splicing factor Sam68 for the diagnosis of lung cancer, Biotechnology Letters , 42, 2501–2509**.**

Asim Bikas Das*(2020)**.** Small-world networks of prognostic genes associated with lung adenocarcinoma development, Genomics 112, 4078-4088.

R. Kowshik Aravilli, **V. Kohila***, S. Laveen Vikram, Heuristics in role of Human Glutathione S-transferase Mu 1 as Nitric Oxide Carrier and its Engineered Variants for Enhanced Activity, Current Pharmaceutical Biotechnology, **2021**, 22(15), 2071-2084.

Haarika Raghavapudi, Pankaj Singroul, **V. Kohila***, Brain tumour: causes, symptoms, diagnosis and radiotherapy treatment, Current Medical Imaging, **2021**, 17(8), 931-942.

R. Kowshik Aravilli, S. Laveen Vikram, **V. Kohila***, The functional impact of alternative splicing and single nucleotide polymorphisms in rheumatoid arthritis. Current Pharmaceutical Biotechnology, **2021**, 22(8), 1014-1029.

Deepti Diwan, Lei Cheng, Zeba Usmani, Minaxi Sharma, Nicola Holden, Nicholas Willoughby, Neelam Sangwan, **Rama Raju Baadhe**, Chenchen Liu, Vijai Kumar Gupta,(2021) Microbial cancer therapeutics: A promising approach, **Seminars in Cancer Biology**,,ISSN 1044-579X,https://doi.org/10.1016/j.semcancer.2021.05 003. **IF 15.707**

Velidandi, A., Pabbathi, N. P. P., & ***Baadhe, R. R.** (2021). Study of parameters affecting the degradation of rhodamine-B and methyl orange dyes by Annona muricata leaf extract synthesized nanoparticles as well as their recyclability. **Journal of Molecular Structure**, 1236, 130287. **IF 3.196**

Velidandi, A., Pabbathi, N. P. P., Dahariya, S., & ***Baadhe, R. R**. (2021). Green synthesis of novel Ag–Cu and Ag–Znbimetallic nanoparticles and their in vitro biological, eco-toxicity and catalytic studies. **Nano-Structures & Nano-Objects**, 26, 100687. **CiteScore: 9.1**

Pabbathi, N. P. P., Velidandi, A., Gandam, P. K., Koringa, P., Parcha, S. R., & ***Baadhe, R. R**. (2021). Novel buffalo rumen metagenome derived acidic cellulase Cel-3.1 cloning, characterization, and its application in saccharifying rice straw and corncob biomass. **International Journal of Biological Macromolecules,** 170, 239. **IF 6.953**

Pabbathi, N. P. P., Velidandi, A., Tavarna, T., Gupta, S., Raj, R. S., Gandam, P. K., & ***Baadhe, R. R.** (2021) Role of metagenomics in prospecting novel endoglucanases, accentuating functional metagenomics approach in second-generation biofuel production: a review. **Biomass Conversion and Biorefinery**, 1-28. **IF 4.987**

Pabbathi, N. P. P., Mootapally, C., Velidandi, A., Dave, K., Nathani, N. M., & ***Baadhe, R. R**. (2020). Living soil of fifty-year-old saw mill: Dawn bioresource with differential hydrolytic potentials. **Ecological Genetics and Genomics**, 16, 100061. CiteScore: 2.3

Velidandi, A., Pabbathi, N. P. P., Dahariya, S., & *Baadhe, R. R. (2020). Catalytic and eco-toxicity investigations of bio-fabricated monometallic nanoparticles along with their anti-bacterial, anti-inflammatory, anti-diabetic, anti-oxidative and anti-cancer potentials. **Colloid and Interface Science Communications**, 38, 100302. **IF 4.914**

Velidandi, A., Dahariya, S., Pabbathi, N. P. P., Kalivarathan, D., & Baadhe, R. R. (2020). A review on synthesis, applications, toxicity, risk assessment and limitations of plant extracts synthesized silver nanoparticles. *NanoWorld J*, *6*(3), 35-60.

Parameshwara Chary Jilloju, **Perugu Shyam**, Chedupaka Raju & Rajeswar Rao Vedula. An Efficient One-Pot Synthesis of-Phenyl-3-(1H-Pyrazol-1-yl)-[1,2,4] Triazolo[3,4-b] [1,3,4] Thiadiazole Derivatives and Their Antimicrobial Evaluation and Molecular Docking Studies. Polycyclic Aromatic Compounds, 2021, 1-15. doi.org/10.1080/10406638.2021.1886127.

Samuel Joshua Pragasam Sampath, Swetha Birineni, **Shyam Perugu**, Nagasuryaprasad Kotikalapudi, Vijayalakshmi Venkatesan. Therapeutic efficacy of 6-Gingerol and 6-Shogaol in promoting browning of white adipocytes vis-à-vis enhanced thermogenesis portrayed in high fat milieu. Food Bioscience, 2021, 42,101211.

Parameshwara Chary Jilloju, **Perugu Shyam**, Ananthula Sanjeev, Rajeswar Rao Vedula. Four-component, one–pot synthesis of (E)- N -benzylidene-3- (benzylthio) 5-(3,5-dimethyl-1 H -pyrazol-1-yl)-4 H -1,2,4-triazol-4- amines and their DNA binding and molecular docking studies. Journal of Molecular Structure, 1225 (2020) 129140.

Razak Hussain, Yusuf Akhter, Mandava Venkata Basaveswara Rao, **Perugu Shyam**, Sailu Yellaboina. Drug Re-purposing from SARS-CoV Led the Identification of Potential Candidate Drug Target and Alternate Drug Molecules Against SARSCoV- 2. *Letters inDrug Design & Discovery,* 2020, *17,* 1325-1327.

D. Tripathy*, A. K. Pal, **S. L. Rath**, G. S. Hanan, B. B. Panda, D. K. Chand. Synthesis, characterization and molecular docking study of Nitro-4'-(2-pyridyl)-2,2':6',2''-terpyridyl

palladium(II) nitrate. Inorg. Chem. Commun. 126, 108494, 2021 (I.F: 2.495)

H. G. Toor, D.I. Banerjee*, **S. L. Rath**, S. A. Darji. Computational drug re-purposing targeting the Spike glycoprotein of SARS-CoV-2 as an effective strategy to neutralize COVID-19. Eur. J. Pharmacol. 890, 173720, 2021 (I.F :3.170)

S. L. Rath*, Kishant Kumar. Investigation of the effect of temperature on the structure of SARS-Cov-2 Spike Protein by Molecular Dynamics Simulations. Front Mol Biosci 7, 297, Sept 22, 2020 : DOI: 10.3389/fmolb.2020.583523 (I. F : 4.62

Vineeth Reddy Karnati, Teja Munaga, Kalyan Kumar Gonavaram, **Amitava Bandhu**. Study on Strength and Leaching Behavior of Biogeochemical Cemented Sand. Geomicrobiology Journal, Volume 37, Year 2020, Pages 670 - 681

Dipanwita Maity, Rajasekhara Reddy Katreddy, **Amitava Bandhu**. Molecular Cloning, Purification and Characterization of Mce1R of Mycobacterium tuberculosis. Molecular Biotechnology, Volume 63, Year 2021, Pages 200-220.

Conference publications

Bhavani, G.S., & Anbumathi, P. (2021). Systems Modelling and Analysis of TGF-β induced Epithelial to Mesenchymal Transition in cancer Metastasis. AJIR Abstracts, 8. DOI https://doi.org/10.21467/abstracts.109

G Sai Bhavani, Anbumathi P. 2021. Exploring the Contributions of Women Scientists in Field of Systems Biology. International Conference on Women Empowerment in Science and Technology held on 8th – 10th March 2021, Organised by Women Cell, NIT Warangal, India

G Sai Bhavani, Anbumathi P. 2021. Exploring the Contributions of Women Scientists in Field of Synthetic Biology. International Conference on Women Empowerment in Science and Technology held on 8th – 10th March 2021, Organised by Women Cell, NIT Warangal, India

G Sai Bhavani, Anbumathi P. 2021. A Survey based analysis of Women's Health, Wellbeing: Issues and Concerns. International Conference on Women Empowerment in Science and Technology held on 8th – 10th March 2021, Organised by Women Cell, NIT Warangal, India

G. Sai Bhavani, Shervin Sugumaran, Anbumathi P. 2019. Quantification of Oxidative stress regulation of fission yeast S. pombe . IITM-EBI modelling workshop, IIT Madras in collaboration with EMBL, 2-5th December, 2019, Chennai, Tamil Nādu, India

G Sai Bhavani, Anbumathi P. 2019. Working Women's Health, Wellbeing: A Survey Based Study on Issues and Concerns. Role of Women in Technical Education (RWTE-2019) held on 8th – 9th March 2019, Organised as a part of Diamond Jubilee celebrations under TEQIP-III at NIT Warangal, India

Rathnaprabha.D. 2019. Health and Nutrition Tips for women(in30's)-towards Achieving work efficiency.Role of Women in Technical Education(RWTE-2019) held on 8th and 9th March 2019, Organised as a part of Diamond Jubilee Celebrations under TEQIP-III at NIT Warangal,India

A Srividya, Rathnaprabha D. Women empowerment towards Plant molecular

sciences. International Conference on Women Empowerment in Science and Technology held on 8th – 10th March 2021, Organised by Women Cell, NIT Warangal, India

Teena Chandna, Susmita Gorntala, RSatish Babu and Ashish A Prabhu. Recombinant production of L- asparaginase: An Indispensable anti- cancerous agent. International Conference on Recent innovations in chemical and biological engineering (RICBE-2k21) jointlyorganized by Department of Chemical engineering and Biosciences, RGUKT - NUZVID, A.P., India, in association with IIChE-ARC during 16th - 18th September, 2021.

Susmita Gorntala, Teena Chandna,. R Satish Babu and Ashish A Prabhu. Process development of serratiopeptidase:Effective therapeutic agent.. International Conference on Recent innovations in chemical and biological engineering (RICBE-2k21) jointly organized by Department of Chemical engineering and Biosciences, RGUKT - NUZVID, A.P., India, in association with IIChE-ARC during 16th - 18th September, 2021.

Maddirala Shivani, Varsha K M, Motru Vineela, **Surajbhan Sevda**. High strength wastewater treatment accompanied by power generation and resource recovery using bioelectrochemical systems. Fifth International Online Conference on Reuse and Recycling of Materials (Polymers, Wood, Paper, Leather, Glass, Metals, Ceramics, Semi Conductors, Water) and their products (ICRM – 2020). Organized by Mahatma Gandhi University, Kottayam, Kerala, India and Wroclaw University of Technology, Poland. 11th -13th December 2020.

Varsha K M, Maddirala Shivani, Motru Vineela, **Surajbhan Sevda**. Metal Recovery Using Bioelectrochemical System. Two-Day Online National Conference on Biological, Biochemical, Biomedical, Bioenergy and Environmental Biotechnology (NCB4EBT-2021) Organized by Department of Biotechnology National Institute of Technology Warangal, January 29-30, 2021.

Pradeep Kumar, **V. Kohila***. *In silico* designing and characterization of the novel fusion protein bCDF186W-hPFN1 as a therapeutic application for rheumatoid arthritis, International webinar on Advances in Genomics & Gene Technology, [Oral Presentation], 24-26 March 2021, IUCGGT, University of Kerala.

R. Kowshik Aravilli, **V. Kohila***. Histone mimicry: a viral strategy of host immune evasion, International webinar on Advances in Genomics & Gene Technology, [Poster Presentation], 24-26 March 2021, IUCGGT, University of Kerala.

V. Kohila*. Genome editing tools: a new era in revolutionized genomics, International webinar on Advances in Genomics & Gene Technology, [Poster Presentation], 24-26 March 2021, IUCGGT, University of Kerala.

V. Kohila*. Integration of science and technology : Innovations in Biotechnology, Lifesciences and Governance, International Conference on women empowerment in science and technology (ICWEST 2021), [Oral Presentation], 8-10 March 2021, NIT Warangal.

Momina shanaz, **Shyam Perugu** "Insilco analysis of biologically active plant products against cancer causing agents" in "NCB4EBT-

2021" Two-Day Online National Conference on Biological, Biochemical, Biomedical, Bioenergy, and Environmental Biotechnology (NCB4EBT 2021) 29-01-2021 to 30-01-2021, online mode conducted by NIT Warangal, the Department of Biotechnology.

Momina shanaz, **Shyam Perugu**. Women contribution towards Bioinformatics. International Conference Women Empowerment in Science and Technology (ICWEST 2021), 8th - 10th March 2021, Organised by Women Cell, NIT Warangal, India.

Dr Perugu Shyam delivered a lecture on Computer applications for image analysis and interpretation in International webinar on Deep learning for detection and management of plant diseases held on 8th March, 2021, organized by Jagan nath University, Bahadurgarh, India. IFSDAA, AASF, SSARM.

Dr Perugu Shyam, Biofortification and its importance in India. A 5 Day Online FDP on "Advances in Biological, Biochemical, Biomedical and Bioenergy (AB)" (09-11-2020 to 13-11-2020), Department of Biotechnology, National Institute of Technology Warangal (09/11/2020).

Dr Perugu Shyam, (**Lecture-06:** Modernization of Food Biotechnology 26/8/2020, **Lecture-11:** The role of additives in Food Biotechnology 27/08/2020, **Lecture-14:** Bioreactors in Tissue Engineering 28/8/2020), ONLINE FACULTY DEVELOPMENT PROGRAMME ON "Advances and Applications of Bioprocess Engineering Techniques" (24-08-2020 to 28-08-2020), Department of Biotechnology, National Institute of Technology Warangal.

Dr Perugu Shyam, *InSilico* drug design and virtual screening in **UGC sponsored National Seminar on Modern trends in Drug Development** held during 2nd - 3rd March, 2021, organized by University College of Pharmacy, Acharya Nagarjuna University, Andhra Pradesh.

Dr Perugu Shyam, Biofortification and its importance in India in FDP on Advances in Biological, Biochemical, Biomedical and Bioenergy on 10th November, 2020, organized by NIT Warangal.

Dr Perugu Shyam, Bioinformatics approaches in Genomics and Proteomics in **Expert lecture webinar** on 10th December, 2020, organized by NITTE, Bangalore.

Dr Perugu Shyam, Role of Bioinformatics in Identification of Criminals in **Expert lecture webinar** on 23rd September, 2020, organized by JNTUH, Hyderabad.

Dr Perugu Shyam, Art of Python Programming (with hands on) in FDP on Current trends in Data Analytics through Hands-on Experience during 31st July, 2020 to 1st August, 2020, organized by NIT Warangal.

Dr Perugu Shyam, Introduction to data analytics, Data Interpretation, importing and exporting data, Sampling methods in FDP on Current trends in Data Analytics through Hands-on Experience during 31st July, 2020 to 1st August, 2020, organized by NIT Warangal.

Funded Research Projects

Rathnaprabha.D DST-SERB(EEQ) was sanctioned in the year January 2019 for three years on "Micropropagation andenhancement of potent anticancer drug(camptothecin) using elicitors and hairy

root cultures in Nothapodytes foetida(wright slumer)- A threatened medicinal plant"

Surajbhan Sevda, NITW RSM Project_P1128 (April 2020 to March 2022). Engineered microorganism for bioelectrochemical systems for water remediation, i.e. perchlorate and nitrate reduction (Ongoing).

Dr. V. Kohila (PI), Cytotoxic and tumor suppressor role of a novel fusion suicide gene bCDF186W-hPFN1 on rheumatoid arthritis, DST-SERB, EEQ/2017/000466, 2018-2021, Rs. 39.21 lakhs (Ongoing).

Prakash Saudagar received a project from DST-SERB(EEQ/2018/000484) sanctioned on 20th February, 2019 for a period of 3 years on "Characterization and validation of tyrosine aminotransferase from *Leishmania donovani* as a potential drug target." (Ongoing).

Sessions Chaired:

- Chaired the session (**Dr. Perugu Shyam**) on Intelligent Brain Computer Interface in **12th International Conference on Intelligent Human Computer Interaction-2020** organized by, Exco-Daegu, South Korea on 26/11/2020.
- Two-Day Online National Conference on Biological, Biochemical, Biomedical, Bioenergy, and Environmental Biotechnology (NCB4EBT-2021). on 29/01/2021(Oral Presentation Session – 3 Plant, Animal Environmental and Food Biotechnology (Chairpersons: **Dr. Perugu Shyam** and **Dr. Thyageshwar Chandran**, NIT Warangal)
- Panel Discussion(**Dr. Perugu Shyam)** in National Science Teachers Congress, IISF 2020 organized by DST, Government of India on 23/12/2020
- Two-Day Online National Conference on Biological, Biochemical, Biomedical, Bioenergy, and Environmental Biotechnology (NCB4EBT-2021) on 30/01/2021 (Oral Presentation Session – 4, Biotechnology-1, Chairpersons: **Dr. V. Kohila** and Dr. Thyageshwar Chandran).
- Three-Day Online International Conference on Women Empowerment in Science and Technology (ICWEST-2021) on 08/03/2021 (Oral Presentation Session – 1, Women in STEM, Chair: Dr. C. Vanitha and Co-chair: **Dr. V. Kohila**).
- Three-Day Online International Conference on Women Empowerment in Science and Technology (ICWEST-2021) on 09/03/2021 (Oral Presentation Session – 4, Women in STEM, Chair: Dr. P. Anbumathi and Co-chair: **Dr. V. Kohila**).

Books

M. Jerold, A. Santhiagu and V. Sivasubramanian, ***Bioprocess Engineering for Bioremediation: Valorization and Management Techniques***, Springer Nature, Switzerland, 2020, ISBN No: 978-3-030-57911-1 (First Edition).

M. Jerold, A. Santhiagu, Rajulapati Sathish Babu and Narasimhulu Korapatti, *Sustainable Bioprocessing for a Cleanand Green Environment: Concepts and Applications*, CRC Press, Boca Raton, United States (Taylor and Francis Group), 2021, ISBN No: 978-0367459086 (First Edition).

Birru Bhaskar, Parcha Sreenivasa Rao, Naresh KasojuVasagiri Nagarjuna, Rama Raju Baadhe. Biomaterialsin Tissue Engineering and Regenerative Medicine:From Basic Concepts to State of**the Art Approache**s ISBN: 978-981-16-0002-9,2020 **Springer Nature SwitzerlandAG.**

Book Chapters

Archana Prabahar, Anbumathi Palanisamy. A protocol for the identification of potential drugs for COVID-19 using Biomedical Literature Mining, Network analysis and Deep Learning based on disease comorbidity, Methods in Molecular Biology: Biomedical

Literature Mining, published by Springer Nature. 2020-21.

Surajbhan Sevda, Garlapati VK, Sharma S, Bhattacharjee U, Pandey L, Sreekrishnan TR (2020) Oil and petrochemical industries wastewater treatment in bioelectrochemical systems.In: Integrated Microbial Fuel Cells for Wastewater Treatment (Abbassi R, Khan F, Yadav A and , Garaniya V, (Eds.). Elsevier, USA, pp. 157-173 (ISBN: 9780128174937)

Mehendale N, Kumar SPJ, Mani NK, **Surajbhan Sevda**, Naha S, Sharma S, Garlapati VK (2020) Microfluidics in Lipid Extraction. In: Handbook on Miniaturization in Analytical Chemistry (Hussain MC, Editor) Elsevier, USA. pp.21-34. (ISBN: 9780128197639)

Surajbhan Sevda and Garlapati VK**,** Sharma S, Sreekrishnan TR (2020**)** Potential ofHigh Energy Compounds: Hythane Production.In: Delivering Low-Carbon Biofuels with Bioproduct Recovery (DrLakhveer Singh & Dr. Durga MadhabMahapatra, Eds), *Elsevier, USA, 2021, pp: 165-176) (ISBN:* 9780128218419). https://doi.org/10.1016/B978-0-12-821841-9.00007-4

Bahaa Hemdan, S. Bhuvanesh, **Surajbhan Sevda** (2020**) Low Carbon fuels and electro-biocom modities .In:** Delivering Low-Carbon Biofuels with Bioproduct Recovery (Dr Lakhveer Singh & Dr. Durga Madhab Mahapatra, Eds), *Elsevier, USA, 2021, pp: 143-164) (ISBN:* 9780128218419). ttps://doi.org/10.1016/B978-0-12-821841-9.00004-9

Garlapati VK, Naha S, Sharma S, Goswami P, **Surajbhan Sevda** (2020) Electro-active biofilms (EAB): Role in a Bioelctrochemical System for waste water treatment and Bioelectricity generation. In: Microbial Biofilms: Properties and Applications in the Environment,Agriculture, and Medicine (Abdul Bakrudeen Ali Ahmed*,* Ed*)*, Taylor and Francis, CRC Press , USA. pp.207-226 (ISBN: 9780367415068)

Garlapati VK**,** Sharma S, **Surajbhan Sevda** (2021) Photosynthetic biogasupgrading - An attractive biological technology for biogas upgrading**. In:** Emerging Technologies and biological systems for biogas upgrading (Aryal N, Ottosen LDM, Kofoed MVW and Pant D, Eds)*".Elsevier, USA*

Conferences, workshops, FDPs, Webinars organized

Five-day online FDP on "Emerging Trends in Biotechnological Advancements: Challenges and Prospects in Tackling Human Diseases", 13-17 July 2020.

Dr.K. Narasimhulu and Dr. M. Jerold organized Five-day online FDP on **Advances in Biological, Biochemical, Biomedical and Bioenergy (AB4)** (09-13 November 2020)

Dr. Surajbhan Sevda, Dr. R Satish Babu. Five-Day Online FDP on "*Advances in Biological Wastewater Treatment Methods: Teaching and Learning Strategies*", September 7-11, 2020 organized by the Department of Biotechnology in association with the Teaching Learning Centre (TLC), NIT Warangal, 2020

Dr Perugu Shyam. Faculty Development Programme (FDP) on **Advances in Bioinformatics,** E & ICT Academy, NIT Warangal (Sponsored by Ministry of Electronics and Information Technology (MeitY), GOI). from 10th – 15th May, 2021.

Dr Perugu Shyam & Dr P Anbumathi. A Five Day Faculty Development Workshop on "Effective Teaching and Learning Practices in Computational biology". 15th -19th March, 2021 in association with Teaching Learning Center, NIT Warangal.

Dr Perugu Shyam & Dr M Sandhya. Online Continuing Education Programme on "Current trends in Data Analytics through hands on Experience" 31st August to 4th September, 2020 in association with CCE, NITW.

Dr K Narasimhulu & Dr Perugu Shyam. Online Faculty Development Programme (FDP) on "Advances and Applications of Bioprocess Engineering Techniques" (24th - 28th August 2020) in association with Teaching Learning Center, NIT Warangal.

Dr Perugu Shyam & Dr M Sandhya. FDP program on "Teaching and Learning Practices of Data Analysis through Hands-on experience" from March 9th to 14th , 2020 in association with Teaching Learning Center, NIT Warangal.

Dr. Soumya Lipsa Rath coordinated a six days online FDP on "Protein-receptor Binding Chemistry" from 17.05.2021-22.05.2021 sponsored by GSBTM, DST.

Dr.K.Narasimhulu and Dr.Onkara Perumal P " a **5 day FDP** on "Advancesin Biotechnology and Bioinformatics **(**ABB-2021**)**" from **22-03-2021 to 26-03-2021.NIT Warangal.**

Dr.K.Narasimhulu and Dr.Thyageswar Chandran "a **Two-Day Online National Conference** on "Biological, Biochemical, Biomedical, Bioenergy, and Environmental Biotechnology" (NCB^{4}EBT-2021) during **29th – 30th January, 2021**. NIT Warangal.

Dr.K.Narasimhulu and Dr.M. Jerold " a **5 day FDP** on "Advances in Biological, Biochemical, Biomedical and Bioenergy (AB^4)" from **09-11-2020 to 13-11-2020**. NIT Warangal. **Dr.K.Narasimhulu** and Dr.PeruguShyam "a **5-Day Faculty Development Programme** on "Advances and Applications of Bioprocess Engineering Techniques" from **24th – 28th August, 2020**. NIT Warangal.

Guest Talks/webinars delivered

Dr. Anbumathi P, Computational Systems Biology – An Overview, Department of Biotechnology and Department of Chemical Engineering, Vel Tech High Tech Dr Rangarajan Dr Sakunthala Engineering College, Chennai, India. 8 June 2020.

Dr. Anbumathi P, Why systems perspective is essential in biology? As part of 5-day online FDP on "Advances in Biotechnology and Bioinformatics (ABB- 2021)" (22-03-2021 to 26-03-2021), 26 March 2021

Dr. Anbumathi P, Computational Systems Biology and Artificial Intelligence, As partof Advances in Bioinformatics (May 10th -15th, 2021) organized by the Department of Biotechnology in association with Electronics & ICT Academy, NIT Warangal. 13 May 2021

Dr. Anbumathi P, Systems Biology Models and Hands On, As part of Advances in Bioinformatics (May 10th - 15th, 2021) organized by the Department of Biotechnology in association with Electronics & ICT Academy, NIT Warangal., 14 May 2021

Dr. Anbumathi P, Computational Systems Biology-Why systems Perspective is essential in Biology, Computer Society of India, Tiruchirappalli Chapter 13 July 2021.

Dr. Anbumathi P, Introductory overview of Computational Systems Biology, Cauvery College for Women, Trichy, Tamilnadu, 25 October 2021

Ashish A Prabhu (2021) Yeast cellfactories as an attractive platform forhemicelluloses based biorefineries. International Conference on "Recent Innovations in Chemical and Biological Engineering" (RICBE-2K21) organized bythe Departments of Chemical Engineering and Biosciences, RGUKT-Nuzvid in association with IIChE Amaravati Regional Centre - Guntur, on 18-21, September 2021.

Ashish A Prabhu (2021) Process of development of recombinant protein production in non- conventional yeast in the TEQIP-III Sponsored Five days onlineFaculty Development Program on "Opportunities and Challenges in Different Sectors of Biotechnology Post- Pandemic" organized by the Department of Biotechnology, UIET, Kurukshetra University Kurukshetra from 8th-12th March,2021.

Ashish A Prabhu (2021) Augmentation in functional properties of rice bran by adapting biotechnological based process strategies. First virtual International Scientific Conference 2020, which was organized by Al-Qasim Green University on December 1 – 3, 2020 in Babylon, Iraq.

Dr. Chockalingam S, Challenges and Prospects in anti-cancer therapies, International Webinar on Biotechnology: Application Areas and Development

Process, Alagappa University, Karaikudi, 01 June 2020.

Dr. Chockalingam S, Prospects in anti- cancer therapies, Recent Advancements in Medical Biotechnology Research, Government College of Technology, Coimbatore, 03 August 2020.

Dr. Chockalingam S, Flow Cytometry: Applications in Biological Research, Advances in Bio techniques, MIET Meerut,11 Oct 2020.

Dr. Chockalingam S, Creative Commons:the use of free materials and uploading documents with Creative Common licenses, Effective online teaching and conducting examinations with Moodle LMS, NIT Silchar, 10 April, 2021.

Dr. Jerold delivered an Invited guest lecture on a AICTE Sponsored Short Term Training Programme on **"Fostering an Effective Research Environment and Industrial Collaborations in Engineering Education"** in theDepartment of Chemical Engineering, **St Joseph's College Of Engineering,** Old Mamallapuram Road, Kamaraj Nagar, Semmancheri, Chennai, Tamil Nadu,India.

Dr. Jerold delivered an Invited guest lecture on a FDP program **Advances in Biological, Biochemical, Biomedical and Bioenergy (AB4)** in the Department of Biotechnology, National Institute of Technology Warangal, Telangana, India.

Dr. Jerold delivered an Invited guest lecture on a National Webinar on EnvironmentalBiotechnology**,** Sponsored by Department of Biotechnology, Ministry of Science and Technology, Government of India, under STAR Programme at St.Mary's College (Autonomous), Thoothukudi, Tamil Nadu, India**.**

Dr. Surajbhan Sevda, Basic Methods for Characteristics of Wastewater. Five-Day Online FDP on "Advances in Biological Wastewater Treatment Methods: Teaching and Learning Strategies", September 7-11, 2020 organized by the Department of Biotechnology in association with the Teaching Learning Centre (TLC), NIT Warangal, 2020.

Dr. Surajbhan Sevda, Advanced Methods for Characteristics of Wastewater. In Five-Day Online FDP on "*Advances in Biological Wastewater Treatment Methods: Teaching and Learning Strategies*", September 7-11, 2020 organized by the Department of Biotechnology in association with the Teaching Learning Centre (TLC), NIT Warangal, 2020

Dr. Surajbhan Sevda, Green Energy Generation in India: Present Scenario and Future Prospects. In online 5-day Faculty Development Program (FDP) cum Training Workshop from 13-17 July, 2020 on "*Environment, Water And Disaster Risk Reduction*'' at Sharda University in collaboration with National Institute of Disaster Management (NIDM), Ministry of Home Affairs, New Delhi.

Dr. Surajbhan Sevda. Advance analysis methods of water and wastewater. In *Five-Day Online Faculty Development Program on* "Teaching And Learning Strategies For Frontiers In MembranesFor Wastewater" organized by the Department of Chemical Engineering in association with the Teaching Learning Centre (TLC), NIT Warangal, 8th – 12thMarch, 2021.

Rama Raju. B expert lecture on "Metabolic engineering for the production of terpenoids" in "Advances in Biological, Biochemical, Biomedical and Bioenergy (AB4)" (09-11-2020 to 13-11-2020), Department of Biotechnology, National Institute of Technology Warangal.

Rama Raju.B expert lecture on "Isolation of novel cellulases through metagenomics approach from buffalo rumen" "Advances and Applications of Bioprocess Engineering Techniques" (24-08-2020 to 28-08-2020), Department of Biotechnology, National Institute of Technology Warangal.

Dr. Soumya Lipsa Rath delivered a lecture on "Protein Secondary structures" in an Online FDP on Basics of Bioinformatics, Organized by E & ICT Academy, NITW in association with University College of Engineering BIT Campus on 27.05.2021

Dr. Soumya Lipsa Rath delivered a lecture on "Ramachandran Plot and propensity" in an Online FDP on Basics of Bioinformatics, Organized by E & ICT Academy, NITW in association with University College of Engineering BIT Campus on 28.05.2021

Dr. Soumya Lipsa Rath delivered an online lecture on "Molecular Modelling and Simulation" in the online FDP on "Protein-receptor Binding Chemistry" conductedby The MSU Baroda and NIT Warangal on 20.05.2021.

Dr. Soumya Lipsa Rath, Assistant Professor, Department of Biotechnology, gave an online oral presentation at the International conference on COVID-19 Drug and Diagnostic Developments organized by Sciinov, New Jersey, United States on 6th February, 2021

New lab established/ Equipment and Software procured

Plant tissue culture research lab was established in November 2019 at Biotechnology Department

EPPENDORF -cold centrifuge, High performance liquid chromatography (WATERS-1525) procured under DST-SERB (EEQ)GRANT

Transport Phenomena in Bioprocess Systems Lab Established for B.Tech Biotechnology Students (2020).

Awards/ Recognitions/ Achievements

PhD Research guidance

Mr.Paramjeet Saroj has completed Ph.D on 18th June 2020 under the guidance of Dr.K.Narasimhulu. Title of the thesis:Screening, Isolation and characterization of thermophilic fungus in the production of β- glucosidase and its application in bioethanol production.

Ms. Pola Madhurihas completed PhD on 16th June 2020 under the guidance of Dr.R.satish Babu. Title of the thesis: Studies on L-Asparaginase production from novel Bacterial endophyte of Ocimum tenuiflorum.

Ms.Sumithra B has completed PhD on24th August 2020 under the guidance of Dr. Asim Bikas Das. Title of the thesis: Genome-wide analysis of Sam68 as a prognostic biomarker in cancer and fabrication of a biosensor for clinical diagnosis.

Department Outreach Activities

The final year students of B.Tech Biotechnology have participated in iGEM competition 2021 and also qualified for the Giant jamboree event.This is the first ever NIT team to participate in iGEM. iGEM is a global competition held at MIT Boston/Cambridge, aimed at the advancements in synthetic biology since 2003. The students of NIT Warangal has worked on the project degossypolyzation of cotton seeds using enzymatic methods. This project would eventually help farmers and cotton based industries.

Department Association/Students Clubs Activities

Foundation of iGEM NIT Warangal student association to compete in iGEM competition which is an annual, worldwide synthetic biology contest aimed at undergraduate students. In this competition, teams design, build and test a system using biological parts such as gene sequences, plasmids, proteins and standard molecular biology techniques, to solve a real-world problem.

Prof. Keerti S. Rathore Professor, Institute of Plant Genomics and Biotechnology, Texas A&M University delivered a lecture on Ultra-Low Gossypol Cottonseed as promising source for protein need of the future on 3 july 2021.

BioNITWork:

A global community of Biotechnology students/ alumni from National Institute of Technology, Warangal (NITW)

A decisive factor in one's professional success is networking. BioNITWork is a global community of Biotechnology students/ alumni from National Institute of Technology, Warangal (NITW), which aims to facilitate interactive sessions and provide a platform for better networking opportunities. Through this, we are determined to develop our alumni society which can assist in building such relationships with fellow students and be able to help each one of them, career or otherwise.

NITW BAM:

NITW Biotechnology Alumni Meet (BAM) was the first virtual alumni meet organized **on 23rd and 24th January 2020** to expand the network of the Department of Biotechnology, NITW and be able to connect alumni to each other, as well as the current students. This event has various sections such as Biological Research, Industrial Research, Entrepreneurship, IT/Technology based services etc. to cover the umbrella of opportunities one has after college and in their respective careers.







Any other Department Specific

Highlights of the department

Media coverage of online Five-Day Online FDP on "*Advances in Biological Wastewater Treatment Methods: Teaching and Learning Strategies*", September 7-11, 2020 organized by the Department of Biotechnology in association with the Teaching Learning Centre (TLC), NIT Warangal, 2020.

Heading in news: Media coverage of Online education only solution in Pandemic times: Warangal NIT Director

Director Prof. NV Ramana Rao inaugurated a five-day online FDP in Machine Learning for IoT and Waste Water Treatment through a Google meeting **Warangal Urban**: Prof NV Ramana Rao, Director, National Institute of Technology (NIT), Warangal, said faculty members need to use latest tools and techniques to reach students in the pandemic situation. "NIT Warangal is making efforts to turn online teaching accessible to every student. Online teaching and learning is the only solution in the current education scenario," he added. He inaugurated a five-day online Faculty Development Programme (FDP) in Machine Learning for IoT and Waste Water Treatment through a Google meeting here on Monday. Addressing the participants, Prof NV Ramana Rao said it was a critical time for the education sector to reach students. Covid-19 pandemic made the education sector move to online mode and it needs to be continued further. Interactive and innovative methods need to be established through online education," he added.



Teaching Learning Centre (TLC) in-charge Prof A Ramachandraiah said participants needed to update knowledge continuously through online mode of teaching and learning. Prof Radha Krishna, Prof Anjaneyelu, Dr Satish Babu, Dr Suresh Babu, Dr Srinivas and Dr Suraj were present.

https://telanganatoday.com/online-education-only-solution-in-pandemic-times-warangal-nit-director?fbclid=IwAR3km8uy5JYHC_4bvpm5o625Yuej2xGJ3r0PeO4V88IrLKD9TZLGe7YJyPw

Summary

S.No.	Activity	Number
1	**Publications (Peer Reviewed Journals/ conferences)(SCOPUS/SCI)**	
	National Journals	
	International Journals	
	Total	37
	National Conferences	
	International Conferences	
	Total	33
2	**Funded Research Projects/SPARC projects (2019-20)**	
	Completed Projects	
	DBT, SERB	
	Ongoing Projects	3
	IMPRINT PROJECTS	
	FIST PROJECT	
	BRICS project	
	DST, SERB, BRNS, DRDO	3
3	**SPARC Project Workshops**	
4	**Consultancy Works (2019-20)**	
5	**Patents**	
	Awarded	

	Filed	
6	**Books and Book Chapters**	
	Books	3
	Book Chapters	7
7	**Conferences/ Workshops/GIAN courses/FDPs Conducted**	13
8	**Guest talks/ Webinars delivered**	26
9	**New Labs Established (Equipment/Software Procured)**	3
10	**Awards/Recognitions/Achievements**	
11	**Research Guidance (Completed in 2019-20)**	3
12	**International Visits of the Faculty Members/ students**	
13	**Students Achievements**	
	Placements	
	B.Tech	
	MTech	
	Higher Education (M.Tech, PhD at IITs & Abroad)	
	Lab Development Activities	
	Conference visits	
14	**Civil Engineering Association Activities**	
15	**Distinguished Guests visiting the Department/Delivering Expert Lecture/Keynote Address**	1
16	**Outreach Programmes**	1

DEPARTMENT OF MATHEMATICS

Brief History of the Department, Academic Programs

The Department of Mathematics is one of the highly reputed Departments in the Institute which functions with excellence as its motto. The Department was started in the year 1959 along with other Engineering and Science Departments and has established itself as a dynamic centre for academic and research activities. The Department offers basic courses in Mathematics for B.Tech. At post-graduate level, the Department offers well-designed diverse courses for all programs of M.Tech., M.C.A, M.B.A and M.Sc. Tech (Engg. Physics) and also offers Open Electives for all UG, PG and Ph.D. programs.

The Department offers two (Four Semesters) PG programs namely: M.Sc. (Applied Mathematics) and M.Sc. (Mathematics & Scientific Computing). In the AY 2021-2022, a FIVE years Integrated M.Sc. (Mathematics) program has been started. The Department since its inception in 1959 is known to be an active research centre in Mathematics. The Department offers Ph.D. program in Mathematics on both Regular and Part-Time basis, and also under Quality Improvement Program (QIP). The Department is the only QIP centre for Mathematics in India. Number of Ph.D. awarded is 120 as on November 2021.

The M.Sc. programs for both streams of Mathematics are designed with one laboratory course in each semester in addition to the regular rigorous theory courses. They inculcate a spirit of practical applications of mathematical concepts and also instil enthusiasm for research activity. Special emphasis is laid on promoting team spirit and improving the oral communication skills of the students, which enables all-round development of the students.



Faculty Details:

S. No.	Name of the Faculty Member and Designation	Highest Qualification	Research Interests	Photograph
1.	Prof. Ramana Murthy J V Professor (HAG)	Ph. D	Fluid Mechanics; Homotopy Analysis Method; Perturbation Methods	
2.	Prof. Reddy Y N Professor	Ph. D	Numerical Analysis	
3	Prof. Kasi Viswanadham K N S Professor	Ph. D	Numerical Analysis, Finite Element Methods, Optimization Techniques	
4	Prof. Debashis Dutta Professor	Ph. D	Operations Research, Statistics & Mathematical Modelling	
5	Prof. Srinivasacharya D Professor	Ph. D	Fluid Mechanics; Computational Fluid Dynamics; Micropolar and Couple Stress Fluids; Convective Heat and Mass Transfer; Bio Mechanics; Flow through Porous Media	
6	Dr. P. Muthu Associate Professor & HOD	Ph. D	Computational Fluid Dynamics (CFD) ; Bio Mechanics ; Mathematical Modelling ; Hydrodynamic Lubrication ; Mathematical Biology	

7	Dr. Hari Ponnamma Rani Associate Professor	Ph. D	Nonlinear dynamics, Finite difference methods, Finite volume methods, Computational Fluid Dynamics, Instability and vortex analysis, Heat and Mass Transfer problems.	
8	Dr. Benerji Babu A Associate Professor	Ph. D	Fluid Dynamics (Geophysical Fluid Dynamics)	
9	Dr. R. S. Selvaraj Associate Professor	Ph. D	Algebraic Coding Theory (It is a branch of Information Theory; It is a mathematical discipline for which Linear Algebra and Abstract Algebra will be essential)	
10	Dr. Pranitha J Assistant Professor	Ph. D	Fluid Dynamics; Heat transfer; Porous Media	
11	Dr. Ch. Ramreddy Assistant Professor	Ph. D	Fluid Dynamics, Convective Heat and Mass Transfer, Porous Media, Computational Methods & Its Stability	
12	Dr. D. Bhargavi Assistant Professor	Ph. D	Computational Fluid Dynamics, Numerical Heat transfer through porous media	
13	Dr. Satyanarayana Engu Assistant Professor	Ph. D	Partial Differential Equations	

14	Dr. Y Sreenivasa Rao Assistant Professor	Ph. D	Public Key Cryptography and Its Applications (Key distribution, Cloud Security, Secure data sharing and data retrieval from cloud, Blockchain Security)	
15	Dr. Kaladhar K Assistant Professor	Ph. D	Fluid Dynamics, Inventory management	
16	Dr. Deepika Neela Assistant Professor	Ph. D	Hydrodynamic Stability; Convection in Porous media.	
17	Dr. Triveni Prasad Shukla Assistant Professor	Ph. D	Quasilinear Partial Differential Equations, Nonlinear Waves	
18	Dr. Srinivas Jangili Assistant Professor	Ph. D	Heat Transfer Analysis, Analytical and Semi-analytical Methods.	
19	Dr. Jagannath Roy Assistant Professor	Ph. D	Multi-Criteria and Mutli-Objective Decision Making, Portfolio selection, Fuzzy Optimization	

Journal Publications

R.Naresh, **J V Ramana Murthy**, V.Radhakrishna Murthy, J Srinivas; effect of Magnetic field on unsteady flow of dusty fluid due to constant pressure gradient through a circular cylinder: An analytical Treatment; Lecture Notes in Mechanical Engineering, 2021

Pavan Kumar Reddy M, **J V RamanaMurthy**; Stokes flow and heat transfer past acircular cylinder in a square cavity with suction/ injection on side walls; Heat transfer- Wiley (2020), DOI: 10.1002/htj.21776

Pavan Kumar Reddy M, **J V RamanaMurthy**; Stokes flow and heat transfer past a circular cylinder in a square cavity; with suction/injection on opposite-side walls, SN Applied Sciences (2020) 2:496, https://doi.org/10.1007/s42452-020-2250-1

M. Pavankumar Reddy, and **J. V. Ramana Murthy**; Effect of magnetic field on couple stress fluid flow in a rectangular channel; AIP Conference Proceedings 2246, 020057 (2020); https://doi.org/10.1063/5.0014635

YN Reddy, Sireesha and K Paneendra, Computational Results of Differential Difference Equations with mixed shifts having layer structure using cubic non-polynomial spline, Journal of Mathematics Computing Science, 10 (2020) : 1309-1326 (SCIK Pub. Co.).

YN Reddy and RP Singh, A fitted method for Differential Difference Equations having boundary layers via deviating argument and interpolation, Journal of Mathematical and Computational Sciences, 10 (2020) : 2467-2492 (SCIK Pub. Co.).

YN Reddy and RP Singh: Perturbation Iteration Method for solving Differential Difference Equations having boundary layer, Journal of Informatics and Mathematical Sciences, 12(2020) 3: 223-232 (RGN Publishers).

YN Reddy and RP Singh: A fitted second order finite difference method for singularly perturbed Differential Difference Equations exhibiting boundary layers, Communications in Mathematics and Application, 11(2020) 4: 617-633 (RGN Publishers).

YN Reddy and RP Singh: A fitted deviating argument and interpolation scheme for the solution of Singularly perturbed Differential Difference Equations having layers at both ends, Journal of Mathematical and Computational Sciences, 11(2021) 1: 856-873 (SCIK Pub. Co.).

YN Reddy and RP Singh: A fitted numerical method for a class of Singularly perturbed Differential Difference Equations, Journal of Mathematical and Computational Sciences, 11 (2021) 3: 2847-2873 (SCIK Pub. Co.).

Debashis Dutta & Subhabrata Rath, Job Scheduling on Computational Grids Using Multi Objective Fuzzy Particle Swarm Optimization. In: Sharma T.K., Ahn C.W., Verma O.P., Panigrahi B.K. (eds) Soft Computing: Theories and Applications. Advances in Intelligent Systems and Computing, vol 1380. Springer, Singapore. https://doi.org/10.1007/978-981-16-1740-9_28 (Springer).

Kumar, Pavan, and **D. Dutta**. A Deteriorating Inventory Model with Uniformly Distributed Random Demand and Completely Backlogged. Numerical Optimization in Engineering and Sciences: Select Proceedings of NOIEAS 2019, 979 (2020): 213.

Srinivasacharya, D and K. Sita Ramana, Computational Analysis of Double Diffusive Bioconvection of a Nanofluid Past an Inclined Wavy Surface, Int. J. Appl. Comput. Math

Om Prakash Meena, Pranitha J. and **Srinivasacharya, D**, Mixed convection fluid flow over a vertical cone saturated porous media with double dispersion and injection/suction effects, Int. J. Appl. Comput. Math, Vol. 7, issue 3, Article : 59, 2021, https://doi.org/10.1007/s40819-021-00990-y

Dipak Barman and **Srinivasacharya, D**., The variable gravity field and viscous dissipation effects on the convective instability in a porous layer with throughflow: Brinkman model, Journal of Porous Media**,** 24(6):1-13, 2021

Srinivasacharya, D and Dipak Barman, Linear stability of convection in a vertical channel filled with nanofluid saturated porous medium, Heat Transfer**,** 50: 3220– 3239, 2021, https://doi.org/10.1002/htj.22025

Srinivasacharya, D and K. Sita Ramana, Thermal radiation and double diffusive effects on bioconvection flow of a nanofluid past an inclined wavy surface, Thermal Science and Engineering Progress**,** Vol. 22, article id 100830, 2021

Kaladhar, K., Madhusudhan Reddy, K., **Srinivasacharya, D**., Influence of Navier-slip conditions on natural convection flow through an inclined channel with inclined magnetic field, Soret and Hall current effects, International Journal of Engineering Systems Modelling and Simulation**,** Vol.12 No.1, pp.61 – 71, 2021

Srinivasacharya, D and Dipak Barman , The variable gravity field and viscous dissipation effects on the double diffusive and Soret driven convective instability in a porous layer with throughflow, Int. Commun in Heat and Mass Transfer**,** Vol. 120, article id. 105050, 2021

Dipak Barman and **Srinivasacharya, D**., Stability of Nanofluid flow in a vertical porous channel, Special Topics & Reviews in Porous Media — An International Journal**,** Vol. 11(5):477–491 (2020)

Shafeeurrahman, Md, and **Srinivasacharya, D**., Joule Heating Effect on Entropy Generation in a Chemically Reacting Nanofluid through Vertical Channel, The Int J Engg and Sci, Vol. 2, pp., 66-73, 2020

Madhusudhan Reddy, K., Kaladhar, K. and **Srinivasacharya, D**., Inclined magnetic field effect on natural convective slip flow through a porouschannel with convectiveboundary, The Int J Engg and Sc**i**, Vol. 1, pp.89-94, 2020

Srinivasacharya, D. and I. Sreenath, Bioconvection in a couple-stress fluid flow between concentric cylinders, The Int J Engg and Sci, Vol. 1., pp. 81-88,2020

Srinivasacharya, D and Hima Bindu, K., Analysis of Entropy Generation between porous disks due to Micropolar Fluid flow with MHD effect, The Int J Engg and Sci, Vol. 1, pp. 36-42, 2020

Jagadeeshwar P. and **Srinivasacharya, D.,** Melting Heat Transfer and Hall Currents on the Flow over an Exponentially Stretching Sheet with Thermal Radiation, The Int J Engg and Sci, Vol. 1., pp. 09-21, 2020

Srinivasacharya, D. and Sreenath,I., Bioconvection of Couple Stress Fluid in a Channel with Expanding or Contracting Walls, Mathematical Modelling of Engineering Problems**,** Vol 7, No 2, pp. 283 – 292, 2020

Varunkumar, M., & **Muthu, P.**, Fluid Flow and Solute Transfer in a Permeable Tube with Influence of Slip Velocity. Discontinuity, Nonlinearity, and Complexity, 9(2020) 1: 153-166 (L & H Scientific Publishing, LLC).

Muthu, P., & Pujitha, V., Effect of Magnetic Field and Non-Uniform Surface on Squeeze Film Lubrication. Journal of Applied Nonlinear Dynamics, 9(2020) 2: 223-230 (L&H Scientific).

G. Radhakrishnamacharya, **P. Muthu** and M. Varunkumar, Mathematical model of fluid flow and solute transfer in a permeable channel with slip velocity at the boundaries, Proceedings of the National Academy of Sciences - A : Physical Sciences, India. (To appear)

Hari Ponnamma Rani, V Leela, Pulla Nagabhushana, R Gangadhara Reddy, Heat Transfer characteristics of Mixed Convective Magnetohydrodynamic Counter-Current Two-Phase Flow in Rotating Inclined Micro-Porous Channel with Slip Velocity and Asymmetric Thermal Boundary Conditions Using LTNE Model, Journal of Thermal Science and Engineering Applications, 14(2021) 6: 061004 (ASME).

Amgoth Ashok, **Hari Ponnamma Rani**, K.V. Jayakumar, Monitoring of Dynamic Wetland Changes using NDVI and NDWI based Landsat Imagery, Remote Sensing Applications:

Society and Environment, (2021) : 100547 (Elsevier).

P. Madasamy, M. Mukunthan, P. Chandramohan, T.V. Krishna, Mohan, Andrews Sylvanus, E. Natarajan, **H.P. Rani**, S. Velmurugan, S. Rangarajan, Influence of bend geometry on flow accelerated corrosion under neutral pH conditions, Engineering Failure Analysis, 122 (2021): 105127 (Elsevier).

P. Madasamy, P. Chandramohan, M. Mukunthan, T.V. Krishna Mohan, S. Rangarajan, Niraj Uttam, R. Ramakrishnan, G. Babulal, **H.P. Rani**, P. Surendran, A.K. Gupta, J.P. Nair, Flow accelerated corrosion rate on carbon steel pipe bend by thin layer activation technique and computational modeling: Under PHWR operating conditions, Engineering Failure Analysis, 121 (2021): 105125 (Elsevier).

Vekamulla Narayana, **Hari Ponnamma Rani**, Analysis of visualization techniques of bottom heated lid–driven square cavity, Heat Transfer, Heat Transfer, 49 (2020) 6: 3549-3559 (WILEY).

Hari Ponnamma Rani, Vekamulla Narayana, Yadagiri Rameshwar, Sergey Vladimirovich Starchenko, Aspect Ratio Effects on Bottom Heated 2D Cavity using Energy Streamlines and Field Synergy Principle, Latin American Applied Research / Heat and Mass Transfer, An International Journal, 50(2021) 1: 41-46.

Irrinki Gnana Sudha, **R. S. Selvaraj,** MacWilliams Type Identities for Linear Codes on Certain Pomsets: Chain, direct and ordinal sum of pomsets Discrete Mathematics, 343(2020) 4: 111782 (Elsevier).

Irrinki Gnana Sudha, **R. S. Selvaraj,** MDS and I-Perfect Codes in Pomset Metric IEEE Transactions on Information Theory, 67(2021) 3: 1622 - 1629 (IEEE).

Pranitha Janapatla, Om prakash Meena, D Srinivasacharya, Influence of Soret and Dufour on mixed convection flow across a vertical cone, Heat Transfer, (2021): https://doi.org/10.1002/htj.22277 (WILEY).

J Pranitha and Om Prakash Meena, Influence of Double Dispersion on Natural Convection Flow over a Vertical Cone Saturated Porous Media with Soret and Dufour Effects, International Journal of Engineering and sciences, 2 (2020): 09-15 (https://www.theijes.com).

Meena, O. P., & **Pranitha, J.**, Power-law nanofluid on mixed convection with influence of double dispersion saturated non-Darcy porous media. In AIP Conference Proceedings, 2246 (2020) 1: 020019 (AIP Publishing LLC).

Om Prakash Meena, **J Pranitha** and Ali J Chamka, Influence of Soret And Dufour Effects On Mixed Convection Flow Over A Vertical Cone With, Injection/Suction Effects, Journal of Porous Media, 24 (2021) 4: (Begel House Inc.)

Pranitha Janapatla, Om prakash Meena, D Srinivasacharya, Mixed Convection Fluid Flow Over a Vertical Cone Saturated Porous Media with Double Dispersion and Injection/Suction Effects, International Journal of Applied and Computational Mathematics, 7 (2021) 3: 1 – 20 (Springer).

Rishi Raj Kairi, **Ch. RamReddy,** Nonlinear double diffusive convection from a radiative slender paraboloid in a non-Darcy Porous medium, Journal of Theoretical and Applied Mechanics, 50 (2020: 205 - 221 (Bulgarian Academy of Sciences).

Ch. RamReddy, Abhinava Srivastav, Effect of dispersion on thermally stable stratified power-law fluids over vertical frustum of a cone in a non-Darcy porous medium: Flow separation, Heat Transfer, 50(2021) 3: 2380 - 2402 (WILEY).

N. Raji Reddy, **Ch. RamReddy,** Significance of thermophoretic deposition of particles on convective flow between vertical channel in a porous medium with Soret effect, The International Journal of Engineering and Science, 3 (2020): 01 – 07 (https://www.theijes.com).

Ch. RamReddy, Har Lal Saran, Effects of thermal and solutal dispersions on free convective flow of Newtonian fluid over a cone in a non-Darcy porous medium

The International Journal of Engineering and Science, 2 (2020): 01-08 (https://www.theijes.com).

Rishi Raj Kairi, **Ch. RamReddy,** and Subrata Roy, Influence of heat generation/absorption on the nonlinear convective flow of a Casson fluid over a horizontal plate, Discontinuity, Nonlinearity, and Complexity, Accepted in Oct 2020 (DOI not found)

Ch. RamReddy, Abhinava Srivastav, Analysis of Ostwald-de Waele power-law nanofluid flow in a non-Darcy porous medium with an efficient spectral algorithm, Discontinuity, Nonlinearity, and Complexity, Accepted in Jan 2021. (DOI not found)

Ch. RamReddy, Abhinava Srivastav, Efficient spectral method for stable stratified power-law fluid flows with dispersion over convectively heated truncated cone in a non-Darcy porous medium, International Journal of Applied and Computational Mathematics, 7 (2021) 3: 1-17 (Springer).

Ch. RamReddy, Abhinava Srivastav, The second law analysis in free convective flow of pseudoplastic and dilatant fluids saturated non-Darcy porous medium with viscous dissipation: Forchheimer model, Journal of Thermal Analysis and Calorimetry, (2021): doi.org/10.1007/s10973-021-10823-1 (Springer).

Ch. RamReddy, Abhinava Srivastav, Numerical study and error estimation in power-law nanofluid flow over a vertical frustum of a cone, Indian Journal of Physics, (2021): doi.org/10.1007/s12648-021-02055-8 (Springer).

Ch. RamReddy, Abhinava Srivastav, Aqueous Titanium alloy-MWCNTs hybrid nanofluid flow in a non-Darcy porous medium, Computational Thermal Sciences: An International Journal, 13(2021) 5: DOI: 10.1615/ComputThermalScien.2021037040 (Begell Digital Library).

Satyanarayana Engu, Manas R Sahoo, Venkatramana P. Berke, Solutions to viscous Burgers equations with time dependentsource term, Electronic Journal of Differential Equations, 02 (2021): 1 – 16 (The University of Texas).

Satyanarayana Engu, M. Manasa , P. B. Venkatramana, Generalized solutions of an inhomogeneous inviscid Burgers equation, Indian Journal of Pure and Applied Mathematics, (2021). https://doi.org/10.1007/s13226-021-00099-4 (Springer).

Suvradip Chakraborty and **Sreenivasa Y. Rao** and C. Pandu Rangan, Efficient single round attribute-based authenticated key exchange protocol, International Journal of Computer Mathematics: Computer Systems Theory, (2021): DOI: 10.1080/23799927.2021.1873192 (Taylor and Francis).

Dheerendra Mishra and Dharminder Dharminder and Preeti Yadav and **Y. Sreenivasa Rao** and Pandi Vijayakumar and Neeraj Kumar, A provably secure dynamic ID-based authenticated key agreement framework for mobile edge computing without a trusted party, Journal of Information Security and Applications, 55 (2020): 102648 (Elsevier).

K Kaladhar, E Komuraiah, KM Reddy, Influence of cross diffusions on natural convection flow through annulus region with Navier slip and convective boundaries, e-Journal of Analysis and Applied Mathematics, 1 (2020): 53-66 (Sciendo).

Kolla Kaladhar; K. Madhusudhan Reddy; **D. Srinivasacharya,** Influence of Navier-slip conditions on natural convection flow through an inclined channel with inclined magnetic field, Soret and Hall current effects, Int. J. of Engineering Systems, Modelling and Simulation, 12(2021) 1: 61 – 71 (Inderscience).

T. Siva, **S. Jangili,** and B. Kumbhakar, Heat transfer analysis of MHD and electroosmotic flow of non-Newtonian fluid in a rotating microfluidic channel: an exact solution, Applied Mathematics and Mechanics, 42 (2021): 1047–1062 (Springer).

K. Adhikary, **J. Roy**, S. Kar, Fuzzy random Newsboy problem with chance distribution, Journal of Intelligent & Fuzzy Systems, 39 (2020) 5: 6857 - 6868 (IOS press).

Conference Oral presentations

Hari Ponnamma Rani, Yadagiri Rameshwar, K Naresh, Sergey Vladimirovich STARCHENKO, Heat Transfer Analysis of Tangentially Rotating Fluid Flow past a Semi-Infinite Vertical Cylinder Kept in Uniform Horizontal Magnetic Field – Non-linear Regression and Back-propagation Neural Network, Oral Presentation, Problems of Geocosmos conference, Russia, Paper id 046.

Hari Ponnamma Rani, Vekamulla Narayana, Yadagiri Rameshwar and Sergey V. Starchenko, Numerical Flow Analysis in Gamma shaped enclosure: Energy Streamlines and Field Synergy, Problems of Geocosmos conference, Russia Paper id 056.

Hari Ponnamma Rani, Challenges and Changes: (IM)Migrant, Workforce - Case Study:Canada and India, International Webniar (FDP) on Professional Development of Women Engineers in Post Covid Era, Oranised by MBITS, Kerala 20th-21st July 2020.

Funded Research Projects

Prof. D. Srinivasacharya, Study of different thermo-physical effects on Prandtl-Eyring Nanofluid flow and heat transfer due to rotating disk, DST - FSER under TARE (Mathematical Sciences), Project No SERB/F/5959/2020-2021 dated 21st December 2020, Rs. 18.30 Lakhs.

Dr. Satyanarayana Engu, On the solutions of inhomogeneous Burgers equations, CSIR, project No.25(0302)/19/EMR-II, Rs. 20 Lakhs.

S. No.	Title	Total Amount sanctioned	Funding agency and Project No.	Installment 1,2019-2020	Installment 2, 2020-2021	Installment 3, 2021-2022
1	Study of different thermo-physical effects on Prandtl-Eyring Nanofluid flow and heat transfer due to rotating disk	Rs. 18.30 Lakhs	DST – FSER, Project No SERB/F/5959 /2020-2021 dated 21st December 2020	----	Rs. 3.35 lakhs	----
2	On the solutions of inhomogeneous Burgers equations	Rs. 20 Lakhs	CSIR & No.25(0302) /19/EMR-II	6,02,000/- Rs	---	---

Conferences, workshops, FDPs, Webinars organized

Dr. P. Muthu, Dr. H.P. Rani, Dr. D. Bhargavi, organized 5-day FDP on "Teaching and Learning Strategies of Differential Equations and Applications in Science and Engineering", December 28, 2020 to January 01, 2021, sponsored by TLC NITW.

Dr. M. Sandhya, **Dr. Y. Sreenivasa Rao**, Organized 5 day Online Short Term Course on "Data Analytics using Python", February 08-12, 2021, in association with Center for Continuing Education, NIT Warangal.

Guest Talks/webinars delivered

Prof. K.N.S.Kasi Viswanadham, Computational Methods and Analysis for Engineers, NIT, Jallandhar, 20-11-2020.

Prof. K.N.S.Kasi Viswanadham, Application of Mathematics in Engineering, KPR Institute of Engineering and Technology, Coimbatore, 20-7-2020.

Prof. Debashis Dutta, Uncertainty in Optimization and Machine Learning, NIT Warangal, 8-3-2021.

Dr. P Muthu, Mathematical Models of physiological flows, INVITED LECTURE, 2nd International Conference on Mathematical Techniques and Applications (e-ICMTA-2021), SRM University, Chennai, 24-03-2021.

Dr. P Muthu, Mathematical Models of Physiological Fluid Flows, 86 th Annual Conference of IMS 2020, Symposium on BIOMECHANICS, VIT-Vellor, 18-12-2020.

Dr. P Muthu, Analysis of Variance, National Level Faculty Development Program on Role of Statistics in Research Methodology, LFDC, Hyderabad, 06-03-2021.

Dr. P Muthu, Numerical Solution Of Navier-Stokes Equations, Department of AS&H (Mathematics), Tirumala engineering college, jonnalagadda, Guntur, June 17 to 21, 2021.

Dr. Hari Ponnamma Rani, Finite Volument method - Innovative applications, One Week Online FDP on Exploring Innovations in Mathematical Sciences (EIMS 2020) organized by the Department of Mathematics, Sathyabama Institute of Science and Technology, Chennai from 25th June – 1st July 2020.

Dr. Hari Ponnamma Rani, Applications of Finite Volume methods in Engineering, Six Day FDP on Applications of Mathematics in Engineering organised by Department of Mathematics, KPR Institute of Engineeringand Technology, Coimbator. 20th July -25th July 2020, 24-07-2020.

Dr. Hari Ponnamma Rani, Research Projects, ONLINE Refresher course for Mathematics lecturers of Telangana Tribal & Social welfare Institutions (15th to 30th June 2020), 22-06-2020.

Dr. Hari Ponnamma Rani, Finite Volument methods real time applications, FDP on Mathematics and its applications in Science and Technology, Department of Mathematics, School of Basic Sciences, SRM Institute of Science and Technology, Tamil Nadu. 17-28th July 2020, 08-07-2020.

Dr. Hari Ponnamma Rani, Code of Ethics and Educator, AICTE sponsored Two weekFDP Nurturing Morals, work Ethics and Accountability for Technical Teachers, organised by Department of Computer Science, VRSE College, Vijayawada.

Dr. Hari Ponnamma Rani, Differential Equations and its Applications, One month Refresher course organised by UGC-HRDC Bangalore University, 22-01-2021.

Dr. Hari Ponnamma Rani, Air Flow in a Backward-Facing Step: Dynamical systems approach, International Conference onApplied Mathematics & Civil Structures (ICAMCS 2021), JOINTLY ORGANIZED BY DEPARTMENTS OF MATHEMATICS & CIVIL ENGINEERING, SSN COLLEGE OF ENGINEERING, CHENNAI. 12-13th Feb. 2021.

Dr. Hari Ponnamma Rani, Role of Parallel Processing and Artificial Neural Network in Solution of Differential Equations, One month Winter school on Mathematics, Computer Science & Information Technology UGC-Human Resource Development Centre,Kannur University, Kerala, 25-02-2021.

Dr. Hari Ponnamma Rani, Nonlinear Dynamical Systems and its Applications , National Webniar on Nonlinear Dynamical Systems and its Applications organised by Department of Physics, Theivani Ammal College for Women, Villupuram, Tamil Nadu, 17-05-2021.

Dr. Hari Ponnamma Rani, Role of Mathematics in Emerging Technologies, Webniar organized by Department of Mahematics, Dr. N.G.P. Arts and Science College, Coimbatore, Tamil Nadu, 25-05-2021.

Dr. R. S. Selvaraj, MDS Codes and Perfect Codes with Pomset Metric, 28th International Conference for FIM, Stella Maris College & SSN College of Engg, Chennai, 27-11-2020.

Dr. R. S. Selvaraj, Ubiquitous Mathematics, Kristu Jayanti College, Bengaluru, 04-12-2020.

Dr. R. S. Selvaraj, Algebraic Coding Theory & Code-Based Crypto, Bharath Institute of Higher Education and Research, Chennai, 22-01-2021.

Dr. R. S. Selvaraj, How to conduct an Online examination using Moodle? - Part-2, NIT Silchar, 09-04-2021.

Dr. Ch.Ramreddy, Adomian Decomposition Method & Its Modifications: Theory and Problems, Webinar Series – 2020 on Mathematical Modelling & Its Applications, Sastra (Deemed to be University), Thanjavur, Tamil Nadu, 12-10-2020.

Dr. Satyanarayana Engu, On a differential equation governing traffic flow problem, NIT Warangal, 31-12-2020.

Dr. Satyanarayana Engu, Conservation laws, NIT Tiruchirappalli, 18-06-2021.

Dr. Y. Sreenivasa Rao, Mathematics in Security, Dept. of Mathematics, SNS College of Technology, Coimbatore,Tamil Nadu, 22-06-2020.

Dr. Kaladhar Kolla, Single and Two Species Populations Models, Vignana's Institute of Management and Technology for Women, Hyderabad, 16-06-2020.

Dr. Triveni Prasad Shukla, Applications of Differential Equations in Engineering, Government Polytechnic, Dehri-on-Sone, Rohtas, 20-08-2020.

Dr. Triveni Prasad Shukla, Groups of Small Order and Their Properties, Netaji Subhashchandra Bose College, Nanded, Maharashtra, 31-07-2020.

Dr. Srinivas Jangili, Mathematical Modelling with Differential Equations, Telanagana Tribal Welfare Residential Degree College, Adilabad, 22-12-2020.

Dr. Jagannath Roy, DEMATEL and ISM methods and their applications, Calcutta Business School, Kolkata (Online 2 Week Certificate Course on Multi-Criteria Decision Making (MCDM) Techniques & Applications), 27-08-2020.

Dr. Jagannath Roy, Fuzzy Set Theory and its application in real-life decision making, Indas Mahavidyalaya, Bankura, West Bengal (National Webinar on "Recent Advances in Mathematical Sciences and its Applications"), 16-09-2020.

Dr. Jagannath Roy, Multi-criteria decision-making techniques: Theory and applications, NITW (FDP entitled, "Machine Learning and Optimization for Uncertain Decision Making" conducted by Dept CSE & Continuing Education Centre), 07-03-2021.

Awards/ Recognitions/ Achievements

Prof. Debashis Dutta, Recipient of the prestigious LIFETIME ACHIEVEMENT AWARD in the international scientist awards on Engineering, Science and Medicine on 21 & 22 May 2021, Chennai, India, Organized by VDGOOD Professional Association.

Prof. D. Srinivasacharya, has recognized as top 2 % Scientist in Stanford University Ranking.

PhD Research guidance (Completed during the academic year)

G. Shiva Kumar Reddy (Roll No. 701638), completed his Ph. D with title "Nonlinear Convection In Earth's Outer Core With Isotropic/Anisotropic Diffusivities" under the guidance of **Dr. Benerji Babu A**, February 2021.

Irrinki Gnana Sudha (Roll No. 701372), completed his Ph. D with title "Codes in Pomset Metric: Constructions and Properties" under the guidance of **Dr. R. S. Selvaraj**, June 2021.

Details of students joined in higher educational institutes

Muskan Bansal, M.Sc., Joined Ph.D. program at Harish-Chandra Research Institute (HRI), Prayagraj, Allahabad, 2021.

Pavan Raickwade, M.Sc., Joined Ph.D. program at IIT Madras, 2021.

Preeti Priya, M.Sc., Joined Ph.D. program at NIT Warangal, 2021.

S.No.	Roll Number	Name of the student	Placement details	Higher studies (YES or NO) if YES give details
1	194909	Jugal Kishore	Physics wallah Plateform	
2	194914	Muskan Bansal	-	PhD at HRI
3	194918	Lavanya R	Fractal Analytics	
4	194951	Abhinav Kumar	Dgliger Consulting	
5	194952	Amisha Sharma	Thoughtworks	
6	194953	Anamika Ghosh	K12 Techno Services Pvt Ltd	
7	194954	Vivek Band	Evosys Global	
8	194955	Bhoopati	Quantiphi Analytics	
9	194957	Govind Kumar	Akridata	
10	194960	Kishlay Dwivedi	Tata Consultancy Services	
11	194965	Mo Shahaman	-	B.Ed. at LU
12	194966	muskan agrawal	Evosys Global	
13	194968	Prashant Bhardwaj	Decimal technology	
14	194969	Preeti Priya	-	PhD at NIT Warangal
15	194972	Pavan Raickwade	-	PhD at IIT Madras
16	194975	Shruti Singh	Sapiens	
17	194976	Subhadip Maiti	Sigmoid Analytics	
18	194977	Vinay Pratap Singh	Kagool	

All India Ranks in GATE 2021

S. No.	Roll No.	Name of the Student	AIR in GATE 2021
1	194972	Pavan Rajaram Raickwade	36
2	194905	Chinmaya Kumar Mishra	278
3	194914	Muskan Bansal	696
4	194921	Sarthak Sharma	876
5	194969	Preethi Priya	1267
6	194903	Aishwarya Asawa	1684
7	194901	Ajay Kumar	2720

Department Outreach Activities

Prof. Ramana Murthy J V, Member BOS, Siddhrtha Womens college, Vijayawada, 2019-till date.

Prof. Kasi Viswanadham K N S, Member BOS, JNTU, 2019-till date.

Prof. Kasi Viswanadham K N S, Member BOS, Andhra University, Visakhapatnam, 2019-till date.

Prof. Kasi Viswanadham K N S, Member BOS, NRI Institute of Technology, Vijayawada, 2019-till date.

Prof. Debashis Dutta, Member-BoS, Gitam University, Vizag, 2019-till date.

Prof. Debashis Dutta, Member-BoS, KLEF- Vijayawada, 2019-till date.

Prof. Debashis Dutta, Member-Bos, JNTU , Kakinada, 2019-till date.

Prof. Srinivasacharya D, Member of BOS, Anurag UIniversity, Hyderabad from July 2020

Prof. Srinivasacharya D, Member of BOS, Mallareddy UIniversity, Hyderabad from January 2021

Prof. Srinivasacharya D, Member BOS, Mallreddy Engineering College (Autonomous), Hyderabad from July 2021

Prof. Srinivasacharya D, Member BOS, JNTU, Hyderabad from September 2021

Prof. Srinivasacharya D, BoS for Chaitanya College (Deemed University), Hanamkonda from July 2020

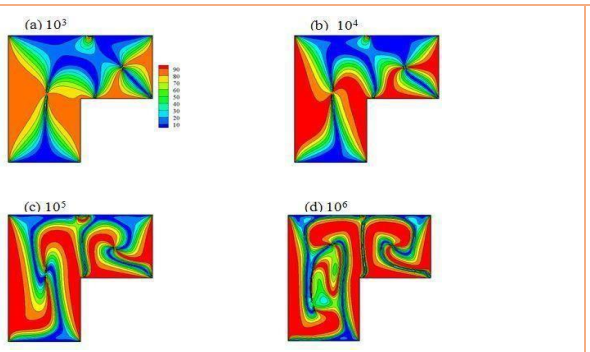
Dr. P Muthu, Member, Centre for Research, Development and Consultancy (CRDC)-Advisory Board, 2020.

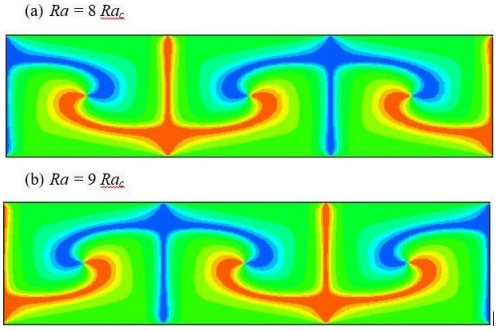
Dr. P Muthu, Member, MEXT Scholarship Research Students screening Committee, Embasy of Japan, summer 2020.

Dr. R. S. Selvaraj, Member - BoS, Saveetha Engineering College, Chennai, 2019 - till date.

Any other Department Specific

Highlights of the department (Research, state of art equipment, facilities, innovative practices etc. With photographs)





Research Highlights: Better synergy among velocity gradient and temperature scalar fields will a larger value of the heat transfer rate. Increasing temperature difference between side walls are represented by the control parameter Rayleigh number in the Gamma Shaped protruded cavity and bottom heated thin rectangular cavity.

Summary

S.No.	Activity	Number
1	**Publications (Peer Reviewed Journals/ conferences)(SCOPUS/SCI)**	
	International Journals	60
	National Journals	
	International Conferences	
	National Conferences	
2	**Funded Research Projects/SPARC projects (2019-20)**	
	Completed Projects (Rs. 28 Lakhs)	**1**
	DBT, SERB(Rs. 28 Lakhs)	1
	Ongoing Projects (Rs 38.30 Lakhs)	**2**
	DST – FSER (Rs. 18.30 Lakhs)	1
	CSIR PROJECTS (Rs. 20 Lakhs)	1
	FIST PROJECT ()	
	BRICS project ()	
3	**SPARC Project Workshops**	
4	**Consultancy Works (2019-20)**	
5	**Patents**	
	Awarded	
	Filed	
6	**Books and Book Chapters**	
	Books	

	Book Chapters	
7	**Conferences/ Workshops/GIAN courses/FDPs Conducted**	**2**
8	**Guest talks/ Webinars delivered**	**32**
9	**New Labs Established (Equipment/Software Procured)**	
10	**Awards/Recognitions/Achievements**	**2**
11	**Research Guidance (Completed in 2019-20)**	**2**
12	**International Visits of the Faculty Members/ students**	
13	**Students Achievements**	
	Placements	
	MSc	52 %
	Higher Education (M.Tech, PhD at IITs & Abroad)	15 %
	Lab Development Activities	
	Conference visits	
14	**Distinguished Guests visiting the Department/Delivering Expert Lecture/Keynote Address**	
15	**Outreach Programmes**	***15***
16	**Number of GIAN Courses Approved**	***2***
17	**Number of Faculty Chaired Conferences / Symposia Sessions**	***10***
18	**Number of Faculty participated in Faculty development/training activities/STTPs**	***8***
19	**Number of Memberships Possessed in Professional and S&T Bodies**	***15***

DEPARTMENT OF PHYSICS

Brief History of the Department, Academic Programs

The Department of Physics was established in 1959, along with the setting up of the Regional Engineering College Warangal (RECW), the first among the chain of REC s. The Department of Physics is involved in teaching UG and PG students of Engineering and Science Programs. The department has highly qualified, motivated and experienced faculty, who guide Ph. D scholars and execute research projects. The department offers a three year M.Sc. (Tech.) Engineering Physics program with specializations in Photonics, Electronics and Instrumentation. The department is actively engaged in research and has a number of sponsored R & D projects on hand. The areas of research include nanomaterials, glasses and biomaterials, magnetic materials, bio-polymers, photonics, electronics, biomedical instrumentation, transparent conducting oxides, liquid crystal displays, organic LED's and solar cells. The department has MoU's with reputed industries and R & D organizations like BEL, CSIO, ELOIRA, etc.

From the academic year 2021-2022, a 5- year Integrated MSc in Physics will be offered, with candidates admitted through JEE MAINS. This course is based on the NEP 2020 standards.The first three years of the curriculum are shared by the math, physics, and chemistry departments. The course's major goal is to develop competent science teachers, scientists, and researchers. There are two options for departure. One at the end of three years for B.ScEngineering Physics, and the other at the end ofthe fourth year for B.Sc honours.



Faculty Details:

S. No.	Name of the Faculty and Designation	Highest Qualification	Research Interests	Photograph
1	DINAKAR D. (HOD)	Ph.D.	Electronics and Photonic Sensors	
2	Dr. Ram Gopal Reddy L	Ph.D.	Medical Instrumentation & Super Capacitors	
3	Dr. Venugopal Reddy K	Ph.D.	Materials Science and Condensed Matter Physics	
4	DR. B.Sobha	Ph.D.	Sensors, Transducers, instrumentation aspects, materials for waste energy utilization applications	
5	Dr. Venkatappa Rao T	Ph.D.	Materials Science, Electronics Fibre optic sensors	
6	Dr. Abdul Azeem P	Ph.D.	Glass science, Bio Glass ceramics, Nanophoshpors	
7	Dr. P. Syam Prasad P	Ph.D.	Glasses and glass-ceramics for electronic, optical and biomedical applications; Nanostructured magnetic and semiconductor materials	

8	Dr. Sourabh Roy	Ph.D.	Integrated Optics, Fiber Optics, Nonlinear optics, Photonic crystal waveguides and fibers	
9	Dr. Kuppusamy Thangaraju	Ph.D.	Organic semiconductors and devices: OLED's, Organic solar cells, Organic thin film transistors (OTFT's)	
10	Dr. Haranath D	Ph.D.	Photonic materials; Nanomaterials; Luminescence; Mesoporous materials; Sol-gel Technology	
11	Dr. Kusum Kumari	Ph.D.	Thin Films, Nanomaterials, Carbon Nanotubes, 2D materials, Organic Opto-electronic Devices	
12	Dr Paul Joseph	Ph.D.	Thin films, Magnetic nanomaterials, Spintronics, Solar cells, Electrochromism, & Super Conductiviy	
13	Dr. V Jayalakshmi	Ph.D.	Liquid Crystals; Photo induced phase transitions; Microfluidics; Confinement & geometric effects, Soft matter	
14	Dr. R. Rakesh Kumar	Ph.D.	Energy Harvesting; Energy Storage; Nanogenerators; Nanomaterials; Nanowires growth; Sensors; Thin films; Gas sensors	
15	Dr. VIJAY KUMAR	Ph.D.	Singular Optics: Phase and polarization singularities, Optical angular momentum, Vector-vortex beams, structured light; Correlation optics, Nano-optics	

16	Dr. K Udaykumar	Ph.D.	Thin films, Transparent conducting oxides, Electrochromic devices, Energy storage and conservative materials and device	
17	Dr. Surya K. Ghosh	Ph.D.	Statistical Physics, Biophysics, Soft Matter, Computational Physics	
18	Dr Hitesh Borkar	Ph.D.	Ferroelectric Photovoltaics, High energy density capacitors, Electroceramics, Opto-electronic devices	
19	Dr. Aalu Boda	Ph.D.	Condensed Matter Theory, Low-dimensional Systems and Nanostructures (Quantum Dots), Spintronics, Density Functional Theory	

Journal Publications

A novel orange-red Sm3+-doped CaSiO3 nanostructured phosphor derived from agro food waste materials for white light applications, MK Raju, RP Rao, N Vijayan, P Abdul Azeem, Ceramics International 47(19)(2021) 26704-26711

In vitro studies of B2O3–SiO2–Na2O–CaO–ZnO bioactive glass system Raj Kumar S, SushilPatel, Vasudevarao P, Bramanandam M, Abdul Azeem P, Journal of Non-Crystalline Solids15 September 2021

Ramadevi Suguru Pathinti, Buchaiah Gollapelli,Suresh Kumar Jakka, and Jayalakshmi Vallamkondu, Green synthesized TiO2 nanoparticles dispersed cholesteric liquid crystal systems for enhanced Optical and Dielectric Properties, Journal of Molecular Liquids, Volume 336, 15 August 2021, 116877.

Buchaiah Gollapelli, Ramadevi Suguru Pathinti, Anupama Chaudhary, Jayalakshmi Vallamkondu, Effect of spherical geometry on the dynamics of the photostimulated nematic-isotropic transition, Optical Materials, Volume 120, October 2021, 111441.

Gollapelli Buchaiah, Arun kumar Tatipamula, S Dewanjee, Ramadevi Suguru Pathinti, Jayalakshmi Vallamkondu, Detection of bile acids using optical biosensors based on cholesteric liquid crystal droplets, Journal of Materials Chemistry C, 2021, Accepted. https://doi.org/10.1039/D1TC02801D

Deepali M, Soumyashree R, Bikash Kumar M, FranciscoJose Lopez-Iranzo, Gerardo Lopez-Rodas, Jayalakshmi V, Ramesh K, Bonaventura C, Potential Biomarkers Associated With Multiple Sclerosis Pathology, International Journal of Molecular Sciences (Accepted), doi: 10.3390/ijms221910323

Naradala Jayarambabu, Allam Akshaykranth, Tumu VenkatappaRao, Rajaboina Rakesh Kumar, Antibacterial Activity of Copper Nanoparticles Synthesized by Bambusa arundinacea Leaves Extract. Biointerface Research in Applied Chemistry , Volume 12, Issue 1, 2022, 1230 – 1236

Naradala Jayarambabu, Linganaboina Srinivasa Rao, Allam Akshaykranth, Tumu VenkatappaRao, Rajaboina Rakesh Kumar, Study of optical and structural properties of natural bamboo fiber powder prepared by ball milling method. The European Physical Journal plus (Accepted-2021).

C. HariKrishna and Sourabh Roy "Generation and conditional switching of isolated C-points in optical beam output of few-mode fiber", OPTIK, Volume 247, December 2021, 168012, https://doi.org/10.1016/j.ijleo.2021.168012

Gnyaneshwar D., T.Lavanya, G. Sathiyan, Raju Kumar Gupta, Ashish Garg, P. Amaladass, Kuppusamy Thangaraju, Improved holeinjection/extraction using PEDOT:PSS interlayer coated onto high temperature annealed ITO electrode for efficient device performances, Superlattices and Microstructures 156 (2021) 106953.

Gnyaneshwar D., T.Lavanya,S. Suneetha, S. Vijayakumar, Jae-Jin Shim, Kuppusamy Thangaraju, Raman and X-ray photoelectron spectroscopic investigation of solution processed Alq3/ZnO hybrid thin films, Spectrochimica Actra Part A: Molecular and Biomolecular Spectroscopy, 265 (2021) 120377.

Gopala Krishna Murthy Mittapally, Dinakar Dantala, I. M. Chhabra, N. V. Narayana Rao Pasalapudi, Kichore Chandra Das, Influence of vacuum and its degradation on the sensing element of the Coriolis Vibratory Gyroscope, Journal of Vibroengineering, (in Press). Https://doi.org/10.21595/jve.2021.22103, Received 4 June 2021; received in revised form 1 September 2021; accepted 12 September 2021; published 15 September 2021

Effect of Magnetic Field on the Energy Spectrum, Binding Energy and Magnetic Susceptibility of an Impurity in a 2D Gaussian Quantum Dot, A Boda, ECS Journal of Solid State Science and Technology 10 (4), 041001, 2021

Possible negative correlation between electrical and thermal conductivity in p-doped WSe2 single crysta, lN Kumari, M Kalyan, SK Ghosh, AR Maity, R Mukherjee, Materials Research Express 8 (4), 045902, 2021

Selective recognition of ATP by multivalent nano-assemblies of bisimidazolium amphiphiles through "turn-on" fluorescence response, R Biswas, S Ghosh, SK Bhaumik, S Banerjee, Beilstein journal of organic chemistry 16 (1), 2728-2738, 2020

Enhanced output of ZnO nanosheet-based piezoelectric nanogenerator with a novel device structure, Siju Mishra, P. Supraja, Vishnu V. Jaiswal, P. Ravi Sankar, R. Rakesh Kumar, K. Prakash, K. Uday Kumar D. Haranath, Accepted in IOP- Engineering Research Express, 2021

Tunable ultraslow light propagation in ruby S Kumari, V Kumar, SG Reddy, RP Singh, Optics Communications 473, 125913, 2020

Enhanced output of ZnO nanosheet-based piezoelectric nanogenerator with a novel device structure, Siju Mishra, P Supraja, Vishnu V Jaiswal, P Ravi Sankar, R Rakesh Kumar, K Prakash, Uday Kumar Khanapuram, D Haranath, Engineering Research Express, 2021

Controlled synthesis of luminescent ZnS nanosheets with high piezoelectric performance for designing mechanical energy harvesting deviceS Mishra, P Supraja, PR Sankar, RR Kumar, K Prakash, D Haranath, Materials Chemistry and Physics, 125264, 2021

Study of optical and structural properties of natural bamboo fiber powder prepared by ball milling methodN Jayarambabu, LS Rao, A Akshaykranth, TV Rao, RR Kumar, The European Physical Journal Plus 136 (10), 989, 2021

A triboelectric nanogenerator based on food packaging Aluminium foil and Parafilm forself-powered electronicsPR Sankar, K Prakash, P Supraja, RR Kumar, S Mishra, D Haranath, Physica Scripta 96 (12), 125005, 2021

A simple and low-cost approach for the synthesis and fabrication of ZnO nanosheet-based nanogenerator for energy harvesting and sensing.P Supraja, RK Rajaboina, S Mishra, D Haranath, PR Sankar, K Prakash, Engineering Research Express 3, 035022, 2021

Characteristics of 2D ZnO-based piezoelectric nanogenerator and its application in non-destructive material discriminationP Supraja, PR Sankar, RR Kumar, K Prakash, N Jayarambabu, TV Rao, Advances in Natural Sciences: Nanoscience and Nanotechnology 12 (2), 025011, 2021

Comparative Study on Antibacterial Activity of MgO Nanoparticles Synthesized fromLawsonia inermis Leaves Extract and Chemical MethodsA Akshaykranth, NJayarambabu, VR Tumu, RK Rajaboina, Journal of Inorganic and Organometallic Polymers and Materials 31 (6), 2393-2400, 2021

Anti-hyperglycemic, pathogenic and anticancer activities of Bambusa arundinacea mediated Zinc Oxide nanoparticles, N Jayarambabu, T Venkatappa Rao, R Rakesh Kumar, A Akshaykranth, Kalakotla Shanker, Velpula Suresh, Materials Today Communications 26, 101688, 2021

Antibacterial Activity of Copper Nanoparticles Synthesized by Bambusa arundinacea Leaves ExtractJ Naradala, A Allam, VR Tumu, RR Kumar, Biointerface Research in Applied Chemistry 12 (1), 1230-1236, 2021

Piezoelectric flexible nanogenerator based on ZnO nanosheet networks for mechanical energy harvesting, Y Manjula, R Rakesh Kumar, P Missak Swarup Raju, G Anil Kumar, T Venkatappa Rao, A Akshaykranth, P Supraja, Chemical Physics 533, 110699, 2020

Green synthesis of Cu nanoparticles using Curcuma longa extract and their application in antimicrobial activityN Jayarambabu, A Akshaykranth, TV Rao, KV Rao, RR Kumar, Materials Letters 259, 126813, 2020

A novel cost-effective approach to fabricate diopside bioceramics: A promising ceramics for orthopedic applications Palakurthy Srinath, P Abdul Azeem, K Venugopal Reddy, Padala Chiranjeevi, Manavathi Bramanandam, Rayavarapu Prasada Rao, Advanced Powder Technology 32 (3), 875-884, 2021

Effects of Co and Co+ Mo additions on tensile properties of tungsten heavy alloys: first-principles study and experimental Ashutosh Panchal, Ashish Pathak, K Venugopal Reddy, PA Azeem, TK Nandy, AK Singh, Powder Metallurgy, 1-8, 2021

Structural and DC conductivity studies of borotellurite glasses doped with ZnO, Li2O and Dy2O3A Malge, T Sankarappa, T Sujatha, PA Azeem, GB Devidas, S Kori,Materials Today: Proceedings 26, 1960-1963, 2020

A comparative study on in vitro behavior of calcium silicate ceramics synthesized from biowaste resourcesS Palakurthy, PA Azeem, K Venugopal Reddy, V Penugurti, B Manavathi, Journal of the American Ceramic Society 103 (2), 933-943, 2020

Microstructure, Texture, Tensile Flow and Work Hardening Behavior of Tungsten Heavy Alloys in Swaged and Swaged+ Aged ConditionsA Panchal, KV Reddy, PA Azeem, TK Nandy, AK Singh, Metallography, Microstructure, and Analysis 9, 438-456, 2020

Zirconia-containing wollastonite ceramics derived from biowaste resources for bone tissue engineeringP Srinath, PA Azeem, KV Reddy, V Penugurti, B Manavathi, Biomedical Materials 15 (5), 055025, 2020

Review on calcium silicate-based bioceramics in bone tissue engineeringP Srinath, P Abdul Azeem, K Venugopal Reddy, International Journal of Applied Ceramic Technology 17 (5), 2450-2464, 2020

Microstructure, Tensile Flow and Work Hardening Behavior of W–Ni–Fe Alloys: Effect of Co and Co+ Mo AdditionsA Panchal, KV Reddy, PA Azeem, TK Nandy, AK Singh, Metallography, Microstructure, and Analysis 9 (5), 774-787, 2020

Investigation on lanthanum sensitized CaZrO3 blue nanophosphors for white LED applications.PA Azeem, B Evangeline, D Haranath, RP Rao, Luminescence: the Journal of Biological and Chemical Luminescence, 2020

Investigation of physical and spectroscopic properties of WO3 doped zinc-lithium-dysprosium borotellurite glassesA Malge, T Sankarappa, T Sujatha, GB Devidas, PA Azeem, Optical Materials 109, 110282, 2020

A cost effective SiO 2–CaO–Na 2 O bio-glass derived from bio-waste resources for biomedical applicationsS Palakurthy, KV Reddy, S Patel, PA Azeem, Progress in Biomaterials 9 (4), 239-248, 2020

Effect of Ni/Fe ratio on microstructure, tensile flow and work hardening behaviour of tungsten heavy alloys in heat treated and swaged conditions Ashutosh Panchal, K Venugopal Reddy, PA Azeem, Rajdeep Sarkar, Archana Paradkar, TK Nandy, AK Singh, Philosophical Magazine 101 (2), 211-241, 2021

Effect of substrate temperature on the charge transport property of Ta2O5 cathode buffer layer in inverted polymer solar cells, Jean Maria Fernandes, M Kovendhan, R Muniramaiah, Nandarapu Purushothamreddy, E Viswanathan, D Paul Joseph, Materials Letters 298, 130038, 2021

V2O5–Sn mesh electrode system for inverted polymer solar cells, M Kovendhan, Jean Maria Fernandes, K Sowri Babu, N Purushotham Reddy, R Muniramaiah, D Paul Joseph, Journal of Materials Science: Materials in Electronics, 1-7, 2021

Investigation of the transparent conducting properties of spray-pyrolyzed Li and F co-doped SnO2 thin film electrodes, D Paul Joseph, R Radha, Jean Maria Fernandes, Reddivari Muniramaiah, Nandarapu Purushothamreddy, M Kovendhan, C Venkateswaran, Journal of Materials Science: Materials in Electronics, 1-11, 2021

Investigation of structural, optical, electrical and mechanical properties of transparent conducting 'Ag'electrodes, R Veera Babu, Jean Maria Fernandes, M Kovendhan, Nandarapu Purushothamreddy, Reddivari Muniramaiah, R Arockiakumar, NS Karthiselva, D Paul Joseph, Physica B: Condensed Matter 607, 412690, 2021

Lithium-antimony co-doping induced morphology transition in spray deposited SnO2 thin films D Paul Joseph, U Devarajan, Jean Maria Fernandes, R Ramarajan, M Kovendhan, Nandarapu Purushothamreddy, Reddivari Muniramaiah, C Venkateswaran, Surfaces and Interfaces 23, 100918, 2021

Indium-Free Alternative Transparent Conducting Electrodes: An Overview and Recent DevelopmentsR Ramarajan, DP Joseph, K Thangaraju, M Kovendhan, Metal and Metal Oxides for Energy and Electronics, 149-183, 2021

Large-area spray deposited Ta-doped SnO2 thin film electrode for DSSC application, R Ramarajan, Nandarapu Purushothamreddy, Reshma K Dileep, M Kovendhan, Ganapathy Veerappan, K Thangaraju, D Paul JosephSolar Energy 211, 547-559, 2020

Tailoring the properties of spray deposited V2O5 thin films using swift heavy ion beam irradiation, R Rathika, M Kovendhan, D Paul Joseph, Rekha Pachaiappan, A Sendil Kumar, K Vijayarangamuthu, C Venkateswaran, K Asokan, S Johnson Jeyakumar, Nuclear Engineering and Technology 52 (11), 2585-2593, 2020

Investigation of ultra-thin and flexible Au–Ag–Au transparent conducting electrode Ch Surya Prakasarao, Pratim Hazarika, Slavia Deeksha DSouza, Jean Maria Fernandes, M Kovendhan, R Arockia Kumar, D Paul Joseph, Current Applied Physics 20 (10), 1118-1124, 2020

Enhanced UV emission of solution processed highly transparent Alq3/ZnO hybrid thin films, Gnyaneshwar Dasi, R Ramarajan, D Paul Joseph, S Vijayakumar, Jae-Jin Shim, M Arivananthan, R Jayavel, Kuppusamy Thangaraju, Thin Solid Films 710, 138265, 2020

Synthesis and characterization of nanostructured La-doped BaSnO3 for dye-sensitized solar cell application Nandarapu Purushothamreddy, M Kovendhan, Reshma K Dileep, Ganapathy Veerappan, K Saravana Kumar, D Paul Joseph, Materials Chemistry and Physics 250, 123137, 2020

Substrate Temperature Dependent Physical Properties of Spray Deposited Antimony-Doped SnO2 Thin Films, R Ramarajan, M Kovendhan, K Thangaraju, DP Joseph, Thin Solid Films 704, 137988, 2020

Magnetism and Charge Order in Nanocrystalline Orthorhombic SrFeO 3-δ, AS Kumar, DP Joseph, AK Bhatnagar, S Srinath, Journal of Superconductivity and Novel Magnetism 33 (6), 1839-1844, 2020

Indium-free large area Nb-doped SnO2 thin film as an alternative transparent conducting electrode, R Ramarajan, M Kovendhan, K Thangaraju, DP Joseph, Ceramics International 46 (8), 12224-12231, 2020

Enhanced optical transparency and electrical conductivity of Ba and Sb co-doped SnO2 thin films R Ramarajan, M Kovendhan, K Thangaraju, D Paul Joseph, R Ramesh Babu, Viswanathan Elumalai, Journal of Alloys and Compounds 823, 153709, 2020

Optimal parameters for fiber Bragg gratings for sensing applications: a spectral studyPVR Shekar, DM Latha, K Kumari, V Pisipati, SN Applied Sciences 3 (6), 1-12, 2021

Heat assisted facile synthesis of nanostructured polyaniline/reduced crumbled graphene oxide as a high-performance flexible electrode material for supercapacitors, N Macherla, K Singh, MSSantosh, K Kumari, RGR Lekkala, Colloids and Surfaces A: Physicochemical and EngineeringAspects 612, 125982, 2021

Improved performance of ternary blend polymer solar cells via work function tuning and suppressed interface recombination using hybrid PEDOT: PSS-graphene oxide hole transport …L Guguloth, K Singh, VSR Channu, K Kumari, Applied Surface Science 540, 148266, 2021

Effect of reduced fluorinated graphene oxide as ternary component on synergistically boosting the performance of polymer bulk heterojunction solar cellsKK Lalsingh Guguloth, P.V. Raja Shekar, V.S. Reddy Channu, Solar Energy 225, 259–265, 2021

Improved photocatalytic activity of carbon-based polymeric semiconductor for efficient decontamination of wastewater: Effect of reaction atmosphere and pyrolysis temperatureVP Madhurima, PH Borse, K Kumari, TN Rao, PK Jain, Optical Materials 110, 110523, 2020

Columnar structure growth of Mn-doped ZnO (MZO) thin films by radio frequency co-sputtering and studies on films propertiesR Siddheswaran, CE Jeyanthi, K Thangaraju, RV Mangalaraja, Materials Technology, 1-7, 2020

Analyzing two-dimensional tunable photonic crystal waveguides for communication band optical filter applications, VDRPS Roy, Journal of Optics, 1-8, 2021

Optical Fiber-Based Intensity-Modulated Cost-Effective Small Lean Angle Measurement SensorDRP Vadapalli, K Dey, S Roy, MAPAN, 1-6, 2021

Axial force analysis using half-etched FBG sensorSR Koustav Dey, V.D.R.Pavan, Ramesh Buddu, Optical Fiber Technology 64, 102548, 2021

Analysis and performance of edge filtering interrogation scheme for FBG sensor using SMS fiber and OTDRK Dey, S Roy, P Kishore, MS Shankar, B Ramesh, R Ranjan, Results in Optics 2, 100039, 2021

Polarization singular patterns in modal fields of few-mode optical fiberCH Krishna, S Roy, JOSA B 37 (9), 2688-2695, 2020

Tuning of photonic bandgap in lithium niobate photonic crystal slab structures for wavelength filteringVDR Pavan, S Roy, Indian Journal of Pure & Applied Physics (IJPAP) 57 (12), 923-927, 2020

Interrogation of SMS for measuring of temperature and strain using half-etched FBG with enhanced sensitivityK Dey, VDR Pavan, S Roy, B Ramesh, Micro-Structured and Specialty Optical Fibres VI 11355, 113550Z, 2020

Visible luminescence characteristics of Pr3+ ions in TeO2–Sb2O3–WO3 glassesVH Rao, PS Prasad, KS Babu Optical Materials 101, 109740, 2020

Effect of Al3+ ions substitution in novel zinc phosphate glasses on formation of HAp layer for bone graft applicationsMM Babu, PV Rao, N Veeraiah, PS Prasad, Colloids and Surfaces B: Biointerfaces 185, 110591, 2020

Development of novel fiber-optic temperature sensor using SrAl2O4: Eu2+, Dy3+ nanophosphor ceramics, VV Jaiswal, D Haranath, Sensors and Actuators A: Physical, 113181, 2021

Phytochemical analysis of Moringa oleifera leaves extracts by GC-MS and free radical scavenging potency for industrial applicationsN Bhalla, N Ingle, SV Patri, D Haranath, Saudi Journal of BiologicalSciences, 2021

Crystal Structure Induced Enhanced Afterglow Luminescence from Rare-Earth Ion Doped Strontium Silicate PhosphorsVV Jaiswal, S Mishra, D Haranath, ChemistrySelect 6 (17), 4047-4055, 2021

Influence of MCCA on structure and photoluminescence of Eu2+ doped BaMgAl10O17 nanophosphor for use in active displaysPC Rao, VV Jaiswal, S Mishra, CJ Sreelatha, D Haranath, Chemical Physics Letters 769, 138410, 2021

Influence of MCCA on structure and photoluminescence of Eu2+ doped BaMgAl10O17 nanophosphor for use in active displaysPC Rao, VV Jaiswal, S Mishra, CJ Sreelatha, D Haranath, Chemical Physics Letters 769, 138410, 2021

Investigation of lanthanum-sensitized $CaZrO_3$ blue nanophosphors for white light-emitting diode applicationsPA Azeem, B Evangeline, D Haranath, RP Rao, Luminescence 36 (2), 481-488, 2021

Multicolor emission and energy transfer dynamics in thermally stable Dy3+/Eu3+ co-doped ZPBT glasses for epoxy free w-LEDs applicationK Jha, AK Vishwakarma, M Jayasimhadri, D Haranath, K Jang, Journal of Non-Crystalline Solids 553, 120516, 2021

Highly efficient, stable and bright blue phosphorescent ink to prevent counterfeit of currency and merchandise barcodesVVJD Haranath, Physica Scripta, 2021

Fabrication and luminescent studies of near-spherical phosphor embedded epoxy-resin nanocomposite beadsVVJD Haranath Journal of Inorganic and Organometallic Polymers and Materials, 2021

Synthesis and Characterization of Europium Doped Barium Magnesium Aluminate (BaMgAl10O17: Eu 2) and Lanthanum Yttrium Phosphate (LaYPO4: Eu 2) NanophosphorsD Haranath, J Chauhan, R Sahu, VR Mehto,2021

Luminescence enhancement of high temperature hexagonal phase of Ba0.99MgAl10O17: Eu0.01 nanophosphor synthesized at moderately lowtemperatureDH Vishnu V. Jaiswal, P. Chandar Rao, C. J. Sreelatha, A. S. Sai Prasad, Materials Science and Engineering: B 263, 114791, 2021

Investigation on lanthanum sensitized CaZrO3 blue nanophosphors for white LED applications.PA Azeem, B Evangeline, D Haranath, RP Rao, Luminescence: the Journal of Biological and Chemical Luminescence, 2020

A strong blue light-emitting material K2Ni (SO4) 2· 6H2O: Photoluminescence and magnetic propertiesM Narsimhulu, G Ramesh, D Haranath, Chemical Physics Letters 755, 137792, 2020

Efficient luminomagnetic and conductive Eu and Dy doped ZnO phosphors for multifunctional devicesD Rehani, S Bishnoi, M Saxena, D Haranath, V Gupta, SN Sharma, Journal of Physics and Chemistry of Solids 143, 109460, 2020

Red emitting CaTiO3: Pr3+ nanophosphors for rapid identification of high contrast latent fingerprintsG Swati, D Bidwai, D Haranath, Nanotechnology 31 (36), 364007, 2020

Tb3+ ion induced colour tunability in calcium aluminozincate phosphor for lighting and display devicesS Kaur, AS Rao, M Jayasimhadri, VV Jaiswal, D Haranath, Journal of Alloys and Compounds 826, 154212, 2020

Unusual Red-Shift and Enhanced Photoluminescence of BaMgAl10O17: Eu2+ Phosphor Under Ultraviolet A Excitation for Modern Lighting Systems, P Chandar Rao, Mohini Gupta, Vishnu V Jaiswal, G Ravinder, CJ Sreelatha, KA Hussain, G Vijaya Prakash, D Haranath, Journal of Nanoscience and Nanotechnology 20 (6), 3854-3858, 2020

Size-Selective ZnO Nanocrystals as Spectral Energy Converters for Use in Advanced Display DevicesVV Jaiswal, D Haranath,

Journal of nanoscience and nanotechnology 20 (6), 3816-3822, 2020

Novel multi-wavelength excitable single-component phosphor system for application in white-LEDsNaina Lohia, Vishnu V Jaiswal, Swati Bishnoi, G Swati, SN Sharma, Manoj Mohapatra, D Haranath, Ceramics International 46 (4), 4079-4085, 2020

Luminescence properties of yttrium gadolinium orthovanadate nanophosphors and efficient energy transfer from VO43− to Sm3+ via Gd3+ ionsVV Jaiswal, S Bishnoi, G Swati, P Singh, N Lohia, S Bathula, D Haranath, Arabian Journal of Chemistry 13 (1), 474-480, 2020

The Potential Role of Cytokines and Growth Factors in the Pathogenesis of Alzheimer's DiseaseG Ogunmokun, S Dewanjee, P Chakraborty, C Valupadas, A Chaudhary, Viswakalyan Kolli, Uttpal Anand, Jayalakshmi Vallamkondu, Parul Goel, Hari Prasad Reddy Paluru, Kiran Dip Gill, P Hemachandra Reddy, Vincenzo De Feo, Ramesh KandimallaCells 10 (10), 2790, 2021

The Emerging Role of HDACs: Pathology and Therapeutic Targets in Diabetes Mellitus, Saikat Dewanjee, Jayalakshmi Vallamkondu, Rajkumar Singh Kalra, Pratik Chakraborty, Moumita Gangopadhyay, Ranabir Sahu, Vijaykrishna Medala, Albin John, P Hemachandra Reddy, Vincenzo De Feo, Ramesh KandimallaCells 10 (6), 1340, 2021

Emerging COVID-19 Neurological Manifestations: Present Outlook and Potential Neurological Challenges in COVID-19 Pandemic, P Hemachandra Reddy Saikat Dewanjee, Jayalakshmi Vallamkondu, Rajkumar Singh Kalra, Nagaprasad Puvvada, Ramesh Kandimalla, Molecular Neurobiology, 2021

Autophagy in the diabetic heart: a potential pharmacotherapeutic target in diabetic cardiomyopathyS Dewanjee, J Vallamkondu, RS Kalra, A John, PH Reddy, R Kandimalla, Ageing Research Reviews, 101338, 2021

Mitochondrial dysfunction, mitophagy, and role of dynamin-related protein 1 in Alzheimer's disease, Vijay Krishna Medala, Buchaiah Gollapelli, Saikat Dewanjee, Gilbert Ogunmokun, Ramesh Kandimalla, Jayalakshmi VallamkonduJournal of Neuroscience Research 99 (4), 1120-1135, 2021

SARS-CoV-2 pathophysiology and assessment of coronaviruses in CNS diseases with a focus on therapeutic targetsJ Vallamkondu, A John, WY Wani, SP Ramadevi, KK Jella, PH Reddy, ... , Biochimica et Biophysica Acta (BBA)-Molecular Basis of Disease 1866 (10), 165889,2020

Funded Research Projects

FIST–PROJECT- **Rs. 2.75 Cr** (XRD and FESEM equipment) "Fund for Improvement of S&T Infrastructure in Universities and Higher Educational Institutions (DST-FIST)" Scheme in January, 2020. The duration of the project is five years (2020 – 2025)

Dr. T. V. Appa Rao, received a grant of **Rs. 34.5** Lakhs to work on "Development of fully bio-based and biodegradable polymer and bamboo fibers composites for commercial applications. (2019)

Dr.Abdul Azeem, Rs. 43 lakhs"Development of novel bioactive glasses And glass ceramics-in vitro and in vivo"2018-2021Project

Dr. Sourabh Roy, received a grant of **Rs. 39.57** Lakhs from SERB to work on "Stable Generation of Optical Vortex Beams using Long Period Grating inscribed Few-Mode Optical Fiber.(May 2020)

Dr. Surya K Gosh, received a grant of **Rs. 37** Lakhs from Extreme Science and Engineering Discovery Environment (XSEDE), USA & Microsoft Azure, USA to work on "Computational structure-based drug design: Identifying antivirals from natural products targeting sars-cov-2 . (Biotechnology department, NIT Warangal) (August 2020)

Dr. Surya K Gosh, received a grant of **Rs. 17** Lakhs from SERB to work on "Dynamics in Complex Environments: from single particle to giant polymers ".(December 2020)

Dr. V. Jayalakshmi, received a grant of **Rs. 37.4** Lakhs from DBT to work on "Design and Development of cost-effective Label-free detection of Alzheimer's biomarkers using liquid crystals". (July 2021)

Dr. V. Jayalakshmi, received a grant of Rs. 52.04 Lakhs from SERB-ECR to work on "Microfluidic methods for the synthesis of monodisperse nematic and cholesteric liquid crystal emulsions for The application in display and fiber optic technology" (Dec, 2016)

Dr.Vijay received a grant of Rs.18 Lakhs from SERB "Machine learning assisted structured light demultiplexing using nano structures" just few days back got it.(7th Noveber 2021)

S. No.	Title & PI	Total Amount sanctioned	Funding agency and Project No.	Installment 1 2018-2019	Installment 2 2019-2020	Installment 3 2020-2021
1	Fund for Improvement of S&T Infrastructure in Universities and Higher Educational Institutions (DST-FIST)" Scheme in January, 2020	**Rs. 2.75 C**				**Rs. 180 L**
2	Development of fully bio-based and biodegradable polymer and bamboo fibers composites for commercial applications. **Dr. T. V. Appa Rao**	**Rs. 34.5 L**	MD/MBDB/ CR-86/18-19/589, Dt.22.04.2019		**11,27500/-**	**11,27,500/-**
3	Development Of Novel Bioactive Glass And Glass Ceramics - In Vitro And In Vivo **Dr. P. Abdul Azeem**	37.76 Lakhs	DST-SERB, project No. EMR/2016/006870	8.08 Lakhs	5.00 Lakhs	8.00 Lakhs
4	Development of Distributed Photonic Sensor for Simultaneous and Real-time Measurements of Strain and Temperature in Fusion Reactor Relevant Applications **Dr. Sourabh Roy**	28,92,852/-	BRNS (DAE) & 39/14/27/2016-BRNS/34430	10,07,625/-	7,37,643/-	-
5	Stable generation of optical vortex beams using long period grating inscribed few mode optical fiber. **Dr. Sourabh Roy**	39,57,166/-	DST-SERB-CRG & CRG/2019/006569			22,98,704/-
6	Dynamics in Complex Environments: from single particle to giant polymers **Dr.Surya K. Ghosh**	INR: 14,36,392/-	SRG (DST-SERB) Projects No: SRG/2020/001606 Date: 26/11/2020	—	—	8,32,672/-
7	Computational structure-based drug designing	INR: ~ 37,00,0	Extreme Science and	—	37,00,000/-	—

	(As a co-PI) **PI: Dr. Thyageshwar** Chandran, Dept of Biotech, NIT-W **Dr.Surya K. Ghosh**	00/- (USD 50,000)	Engineering Discovery Environment (XSEDE), USA & Microsoft Azure, USA			
8	Development of Highly Efficient Perovskite Solar Cells using Chemical Vapor Deposited Graphene and Graphene Nanocomposites as Electron Transport Layers **Dr. Kusum Kumari**		SERB-EEQ (**EEQ/2016/000723)**	Rs. 3,50,000/-		
9	Interface Engineering with CVD grown MoS_2 Ultra – thin Layers for the Improvement of Perovskite Solar Cell Performance **Dr. Kusum Kumari**		**DST/TMD/SERI/S56 /(C&G)**		Rs. 7,50,000/-	
10	Microfluidic methods for the synthesis of monodisperse nematic and cholesteric liquid crystal emulsions for The application in display and fiber optic technology **Dr. V. Jayalakshmi**	Rs. 5204100/-	ECR/2016/000559		Rs.6,50,000/-	**Rs.4,70,000/-**
11	Design and Development of cost-effective Label-free detection of Alzheimer's biomarkers using liquid crystals **Dr. V. Jayalakshmi**	Rs. 374000/-	**BT/PR35841/MED/32/745/2020**			**Rs. 3410000/-**

Patents (Filed, Published, Granted and Licensed)

Dr. P. Abdul Azeem, P. Srinath, **KVG Reddy**, S Rajkumar, Sushil Patel, Krishnam Raju and M Bramanandam for an invention entitled "Calcium Silicate Based Nano Crystalline Ceramics: A Costeffective Method For The Preparation Using Natural Resources" application number 201941036738 for the term of 20 years from the 12th day of September 2019 in accordance with the provisions of the Patents Act,1970, Patent No. : 376586, GRANTED OCTOBER 2021

Books and Book Chapters

Fiber Optic Vibration Sensors Putha Kishore & Dantala Dinakar, Intech Open Access July 2021

Synthesis, Characterization & Applications of ZnO-TiO2 Nanocomposites, D. Haranath. Rakesh Kumar, K. Uday Kumar, Nanoscale Compound Semiconductors and their Optoelectronics Applications 9, 44, 2021

Conferences, workshops, FDPs, Webinars organized

Swami Mahamedhananda (Editor, Vedant Kesari Chennai, Chennai Ramakrishna Math, India), "Mind and it's control", 21/02/2021

Prof. Philip Russel, (Director, Max Planck Institute for the Science of Light, Germany), "Photonic Crystal fiber", 11/03/2021

Prof. Sile Nic Chormaic, (Okinawa Institute of Science and Technology (OIST), Japan), "Particle trapping and spectroscopy using ultrathin optical fibres and whispering gallery resonators" 09/04/2021

Prof. Elsa M. GarmiFirst PhD student of Prof. Charles Townes, the 1964 Nobel laureate and inventor of the laser, USAre, "Old Fashioned Creativity: Chandrasekhara Venkata Raman, Charles Townes and you", 16/05/2021

PhD Research guidance (Completed during the academic year)

T. Ramesh (Roll No. 714051) completed his Ph.D with the title "Development of novel porous carbons using agricultural biomass for high performance and cost-effective electrodes for supercapacitor application" under the guidance of Prof. L Ram Gopal Reddy in October, 2021.

Lalsingh Guguloth (Roll No. 715084) completed his Ph.D. with the title "Studies on Photophysics and Charge Carrier Dynamics of Graphene Oxide and Ternary Blend based Polymer Solar Cells" under the guidance of Dr. Kusum Kumari in September, 2021.

PALAKURTHY SRINATH (Roll No. 716188) completed his Ph.D. with the title "Calcium silicate-based bioceramics derived from natural resources for bone tissue engineering" under the guidance of Prof. K. Venu Gopal Reddy and Dr. Abdul Azeem in September, 2021.

Vishnu Vikesh Jaiswal (Roll No. 718163) completed his Ph.D. with the title "Studies on multi-color emitting long afterglow phosphors for display, security and biological applications" under the guidance of Dr. Haranath in September 2021

Best student papers and other achievements

Sl No.	Name	Achievement Details	Date
1.	Koustav Dey	Invited Speakerat 17th International Conference on Optics, Laser and Photonics, Osaka, Japan.	26-28th June, 2021
2.	Koustav Dey	IOP Trusted Reviewer Award (Given to the top 2% reviewer in the world from IOP)	27th July, 2021

Details of students joined in higher educational institutes

Roll No	Name	Project details	Placement details	Status
185901	Abhishek Pathak	IRDE, Deharadun | Kutleng Technology, SA	Kutleng Technology, SA (off campus)	Changed the company
185902	Anju Kumari	Varroc Lighting Systems	Varroc Lighting Systems (on campus)	Working
185903	Arabinda Luha	IRDE, Deharadun	Biotech Healthcare	Working
185904	Bikash Patel	IRDE, Deharadun	Ohhpro Junction	Working
185905	Deepak Kaloya	CSIR- CEERI, PILANI	Physics Faculty at coaching institute(off campus)	Working
185906	Deepanshu	MedEv Plus, Bangalore	MedEv Plus, Bangalore (on campus)	Working
185907	Harkirat Kaur	Optics and allied engineering pvt ltd, Bangalore	Optics and allied engineering pvt ltd, Bangalore (on campus)	Changed the company
185908	Indu Khichar	CSIR- CEERI, PILANI	NA	Studying
185909	Jogender Kumar	Optics and allied engineering pvt ltd, Bangalore	Optics and allied engineering pvt ltd, Bangalore (on campus)	Changed the company
185910	Karan	BEL, Macchilipatnam		Working
185911	Kavita Tiwari	CMET, Pune	Eruvaka Technologies Pvt Ltd (off campus)	Working
185912	Kirti Ranjan Das	IRDE, Deharadun	Prism India Pvt Limited	Working

185913	Priyanshi Rastogi	Elico Limited, Hyderabad	Evosys Private Limited (on campus) | Cadence (off campus)	Working at Cadence
185914	Kuntal Manjhi	BS SYSTEM PVT LTD	Own Startups : 1)Lalpalash , 2) Kargrill cafe	Entrepreneur
185915	Kushal Bhadra	Physics Department, NITW		
185916	Bishwanta	IRDE, Deharadun		Studying
185917	Manisha	Physics Department, NITW		Studying
185918	Hasnain	Nexys Instruments	Nexys Instruments (on campus)	Working
185919	Meena	Physics Department, NITW	Embibe (off campus)	Working
185920	Mohit Mittal	MedEv Plus, Bangalore	MedEv Plus, Bangalore (on campus)	Working
185921	Neha Gupta	Physics Department, NITW		Studying
185922	Nisha Yadav	BEL, Macchilipatnam	Mantra Optics (on campus)	Working
185923	Palak Kapoor	Varroc Lighting Systems	Varroc Lighting Systems (on campus)	Working
185924	Pandit Himangi	PRL, Ahmedabad		
185927	Prachi Mishra	RCI, Hyderabad		Studying
185928	Preeti Kumari	IRDE, Deharadun	Research Project at Eqoria	Research Project
185930	Riya Sharma	Physics Department, NITW		Studying
185931	Rohit Kumar	Trinity touch pvt. Ltd. Bangalore	Trinity touch pvt. Ltd. Bangalore	Working
185932	Samiksha Kharb	CMET, Pune		
185933	Sanjiv Kumar	RCI, Hyderabad		
185936	Soumya ranjan Sahoo	Elico Limited, Hyderabad	Truechip, Noida (on campus)	Working
185937	Sukanya	Physics Department, NITW	Higher Studies	PhD
185938	Suman Gora	Physics Department, NITW		Studying
185939	Vivek Sharma	IRDE, Deharadun	Akash Institute (in process, on campus)	Working at AKASH
185940	Yogesh Garg	RSD College,Punjab	Byju's (off campus) | Akash Institute (in process, on campus)	Working at AKASH

Department Association/Students Clubs Activities

A Five-day webinar on "Applied Optics and Photonics (AOP)"-5-9th November, 2020 SPIE, NIT Warangal; Co-Ordinator: Dr. Sourabh Roy

Summary

S. No.	Activity	Number
1	**Publications (Peer Reviewed Journals/ conferences)(SCOPUS/SCI)**	96
	International Journals	96
	International Conferences	
	National Conferences	5
2	**Funded Research Projects/SPARC projects (2020-21)**	5
	DBT, SERB, DRDO	6
	Ongoing Projects (Rs **3.9** Crores)	11
	BRNS	1
	FIST PROJECT (2.5 Cr)	1
	National Bamboo Mission	1
	DST, SERB, IITM, NHAI, CSIR	2
3	**PhD Awarded**	4
4	**Book Chapters**	2
5	**Patents**	1
	Awarded	1
	Filed	NIL

DEPARTMENT OF CHEMISTRY

Brief History of the Department, Academic Programs

Brief Profile:

Having been established in the Year, 1959, as an integral part of the Regional Engineering College Warangal (RECW), the Department of Chemistry is greeted as one of the most academically active Departments in the Institute since inception. The department housed 17 faculty members, 49 research scholars and over 100 M.Sc. students. It offers Chemistry courses to all B.Tech. programmes and runs two M.Sc., Chemistry Programmes with specializations in Organic Chemistry and Analytical Chemistry. The Department has executed many sponsored research projects worth crores of rupees and has plenty of projects on hand to the tune of about Rs 15 crore. The department has been conducting cutting-edge research in contemporary topics of Organic, Inorganic, Physical and Analytical Chemistry. It has been publishing its research papers in journals of very high impact factor. So far, the department produced more than 135 Ph.D. students and published over 1000 research articles in various well-reputed international and national journals. In the department, various state-of-the-art facilities such as 400 MHz NMR, HRMS, gas chromatography, HPLC, FTIR, UV-vis-NIR, fluorescence, electrochemical workstation, computational chemistry software, etc. are available. As a part of continuing education and outreach activities, department organized national and international Conferences, seminars and workshops. In addition, many of the faculty also were known for their outreach activities and involvement science popularization. The department surpasses in teaching, research and graduate students' placement.

VISION

Towards Serving as a Potential Hub of Knowledge in Chemical Sciences and Allied Areas So as to Uphold and Strengthen the Vision of the Institute as One among Many Pillars While Striving Continuously in Pursuit of Excellence in Chemical Education, Chemical Research, Chemical Industry and All Interfaces of Chemistry with Society

MISSION

Imparting Total Quality Education in Basic and Applied Chemistry to Develop Innovative, Entrepreneurial and Environment Friendly Graduates of Chemical Sciences of International Standards.

Offering Relevant Fundamental and Applied Attributes of Chemistry, the Central Science, to Engineering Students as an Integral Part of Technical Education.

Promoting Chemical Industry and Societal Service Sectors towards Environment-Friendly and Green Chemical Protocols by Innovation and Research in Cutting Edge Areas of Chemical and Allied Sciences

Augmenting the Country's Needs of Human Resources and Scientific Manpower in Basic and Advanced Chemistry through Learner-Centric and Atma Nirbhar Bharath Modern Education and Research.

Areas of Research Interest:

- *Organic Synthesis, Electrochemistry, Sensors, Energy Systems, Interfacial Chemistry; Medicinal Chemistry, Drug Discovery, Catalysis, Self-assembly, Materials Chemistry, Analytical Reagents and Chromatography, Coordination Chemistry, Environmental Chemistry, Bio-organic Chemistry, Carbohydrate Chemistry, Nano Materials, Supramolecular Chemistry, Computational Chemistry*

Courses Offered by Chemistry Department:

UG courses: *Chemistry theory and laboratory to all engineering branches; Industrial Organic Chemistry Theory to ChE and Polymer Technology to MME.*

5yr Integrated M.Sc. Program*: Admission through JEE Mains with intake of 60 students. Math (20), Physics (20) and Chemistry (20). . For the first three year common syllabus is followed.*

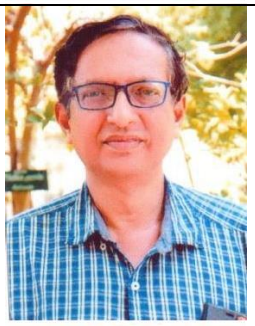
***Postgraduate Programme**: The Department of Chemistry has been running two 2-Year (4-Semester) M.Sc Chemistry Programmes with specialization in Organic Chemistry and Analytical Chemistry with an intake of 30 in each stream. The admission to these programmes is based on Joint Admission Test for Masters (JAM), an all India examination administered and conducted jointly by the Indian Institute of Science and seven Indian Institutes of Technology on behalf of the National Coordination Board - GATE, Department of Higher Education, Ministry of Education conducted by IITs and IISERs.*

***Doctoral (PhD) Programme**: All the faculty members of the Department of Chemistry offer research guidance to registered Scholars leading to the award of Ph.D., degree in all branches of Chemistry and in cutting-edge inter-disciplinary areas of chemistry.*

- ✓ *The Institute has both Full Time and External Ph.D., admissions. All the Full Time Research Scholars have financial assistance through either Institute Fellowships or Project Fellowships or own JRF/SRF Fellowships whereas the External (Part-Time) Ph.D., Scholars are those who work in National Laboratories or in reputed industrial R&D organizations.*
- ✓ *The Department has awarded more than 130 Ph.D., degrees so far and there are over 50 Ph.D., Scholars on rolls.*



Faculty Details:

S. No.	Name of the Faculty Member and Designation	Highest Qualification	Research Interests	Photograph
1	Dr. A. Ramachandraiah Ph.D. (Univ. of Hyderabad) Professor (HAG)	Ph.D	Coordination and Electrochemistry	
2	Dr. K. Laxma Reddy Ph.D. (Kakatiya Univ.) Professor (HAG)	Ph. D	Coordination and Environmental Chemistry	
3	Dr. V. Rajeswar Rao Ph.D. (Kakatiya Univ.) Professor (HAG)	Ph. D	Synthetic organic chemistry	
4	Dr. K. V. Gobi Ph.D. (Madurai Kamaraj Univ.), Professor	Ph. D	Electrochemical Biosensors, Fuel Cell Electro- catalysts	
5	Dr. P. V. Srilakshmi Ph.D. (IICT, Hyderabad), Professor	Ph. D	Bioorganic Chemistry, Drug Delivery/Gene Delivery	

6	Dr. Vishnu Shanker, Ph.D. (IIT Delhi), Associate Professor	Ph. D	Nanocomposite materials, Environmental remediation and photocatalysis	
7	Dr. D. Kashinath Ph.D. (IIT Bombay)	Ph. D	Organic synthesis, Medicinal chemistry	
8	Dr. Venkatathri Narayanan Ph.D. (NCL, Pune) Associate Professor	Ph. D	Materials chemistry and catalysis	
9	Dr. Raghu Chitta Ph.D. (Wichita State Univ), Assistant Professor	Ph. D	Materials Chemistry, Solar energy, Chemosensors	
10	Dr. B. Srinivas Ph.D. (Univ. of Hyderabad), Assistant Professor	Ph. D	Organic synthesis, Supramolecular chemistry, Crystal engineering	
11	Dr. K. Hari Prasad Ph.D. (IIT Kanpur), Assistant Professor	Ph. D	Organic synthesis, Carbohydrate Chemistry	
12	Dr. S. Nagarajan Ph.D. (Univ. of Madras), Assistant Professor	Ph. D	Organic synthesis, Organic materials, Molecular self-assembly	

13	Dr. M. Raghasudha, Ph.D. (Osmania Univ.) Assistant Professor	Ph. D	Nano-ferrites, Nanomaterials, Photocatalysis	
14	Dr. C. Jugun Prakash, Ph.D. (IIT Bombay), Assistant Professor	Ph. D	Medicinal inorganic and bio-analytical chemistry	
15	Dr. Ravinder Pawar, Ph.D. (CSIR-CLRI), Assistant Professor	Ph. D	Computational and theoretical chemistry	
16	Dr. Mukul Pradhan, Ph.D. (IIT Kharagpur), Assistant Professor	Ph. D	Nanomaterials, Energy devices, Electrochemical and SERS sensors	
17	Dr. G. Rajeshkhanna, Ph.D. (IIT Madras), Assistant Professor	Ph. D	Nanomaterials, Electrocatalysis, Electrochemical sensors	
18	Dr. V. Rajeshkumar, Ph.D. (National Chiao Tung Univ.), Assistant Professor	Ph. D	Organic synthesis, Metal catalysis	

Journal Publications

S Mamidala, SR Peddi, RK Aravilli, PC Jilloju, V Manga, RR Vedula, Microwave irradiated one pot, three component synthesis of a new series of hybrid coumarin based thiazoles: Antibacterial evaluation and molecular docking studies, Journal of MolecularStructure 1225, 129114, 2021

Srikanth Mamidala, R Kowshik Aravilli, Gondru Ramesh, Shaik Khajavali, Raju Chedupaka, Vijjulatha Manga, Rajeswar Rao Vedula, A facile one-pot, three-component synthesis of a new series of thiazolyl pyrazole carbaldehydes: In vitro anticancer evaluation, in silico ADME/T, and molecular docking studies, Journal of Molecular Structure 1236, 130356,2021

Srikanth Mamidala, Venugopal Vangala, Saikiran Reddy Peddi, Raju Chedupaka, Vijjulatha Manga, Rajeswar Rao Vedula, A facile one-pot, three component synthesis of a new series of 1, 3, 4-thiadiazines: Anticancer evaluation and molecular docking studies, Journal of Molecular Structure 1233, 130111, 2021

Parameshwara Chary Jilloju, Perugu Shyam, Ananthula Sanjeev, Rajeswar Rao Vedula, Four-component, one–pot synthesis of (E)-N-benzylidene-3-(benzylthio)-5-(3, 5-dimethyl-1H-pyrazol-1-yl)-4H-1, 2, 4-triazol-4-amines and their DNA binding and molecular docking studies, Journal of Molecular Structure 1225, 129140,2021

Parameshwara Chary Jilloju, Leentje Persoons, Sathish Kumar Kurapati, Dominique Schols, Steven De Jonghe, Dirk Daelemans, Rajeswar Rao Vedula, Discovery of (±)-3-(1 H-pyrazol-1-yl)-6, 7-dihydro-5 H-[1, 2, 4] triazolo [3, 4-b][1, 3, 4] thiadiazine derivatives with promising in vitro anticoronavirus and antitumoral activity, Molecular diversity, 1-15, 2021

Parameshwara Chary Jilloju, Perugu Shyam, Chedupaka Raju, Rajeswar Rao Vedula, An Efficient One-Pot Synthesis of 6-Phenyl-3-(1 H-Pyrazol-1-yl)-[1, 2, 4] Triazolo [3, 4-b][1, 3, 4] Thiadiazole Derivatives and Their Antimicrobial Evaluation and Molecular Docking Studies, Polycyclic Aromatic Compounds, 1-15,2021

Ravula, Venkatesh; Lo, Yu-Lun; Wang, Li-Fang; Srilakshmi V. Patri, Gemini Lipopeptide Bearing an Ultrashort Peptide for Enhanced Transfection Efficiency and Cancer-cell-specific Cytotoxicity. ACS Omega 2021, 6, 35, 22955–22968.

Nitesh Bhalla, Nitin Ingle, Srilakshmi V. Patri, Haranath, Phytochemical analysis of Moringa Oleifera leaves extracts by GC-MS and free radical scavenging potency for industrial applications. Saudi Journal of Biological Sciences. 2021, In Press.

Venkatesh Ravula, Yu-Lun Lo, Yi-Ting Wu, Chien-Wen Chang, Srilakshmi V. Patri, Li-Fang Wang. Arginine-Tocopherol Bioconjugated Lipid Vesicles for Selective pTRAIL Delivery and Subsequent Apoptosis Induction in Glioblastoma Cells. Materials Science & Engineering C, 2021, 126, 112189.

Mallikarjun Gosangi, Venkatesh Ravula, Hithavani Rapaka, Srilakshmi V Patri. alpha-Tocopherol-anchored gemini lipids with delocalizable cationic head groups: Effect of spacer length on DNA compaction and transfection properties. Organic & Biomolecular Chemistry, 2021, 19, 4565 – 4576.

Venkanna Muripiti, Brijesh Lohchania, Venkatesh Ravula, Shireesh Manturthi, Srujan Marepally, Amarnath Velidandia and Srilakshmi V. Patri. Dramatic influence of the hydroxy functionality of azasugar moiety in the head group region of tocopherol-based cationic lipids on in vitro gene transfection efficacies. New J. Chem., 2021,45, 615.

Shankar Barapati, M. Raghasudha, P. Veerasomaiah, Effect of Al Doping on Magnetic Properties of Co-Mn Nanoferrites Synthesized via Citrate-Gel Method, Asian Journal of Chemistry, Vol. 33, No. 5 (2021), 1125-1132.

T. Pavithra, E. S. Devi, S. Nagarajan, V. Sridharan, C. U. Maheswari, Sulfur Catalyzed Metal- and Solvent-Free ABB'C Four-Component Synthesis of N-Arylidene-2-aryl-imidazo[1-2-a]azin-3-amines via Strecker Reaction, ChemistrySelect, 2021, 6, 3548.

Patrycja Lach, Maciej Cieplak, Krzysztof R. Noworyta, Piotr Pieta, Wojciech Lisowski, Jakub Kalecki, Raghu Chitta, Francis D'Souza, Wlodzimierz Kutner, Piyush Sindhu Sharma. "Self-reporting molecularly imprinted polymer with the covalently immobilized ferrocene

redox probe for selective electrochemical sensing of p-synephrine" Sensors & Actuators: B. Chemical 344 (2021), 130276.

Suneel Gangada, Pooja, Anjaiah Boligorla, Vijendar Reddy Karla, Srikanth Bandi, Ravinder Pawar, Raghu Chitta.* "Photo-induced Energy and Electron Transfer in Carboxylic Acid Functionalized Bis(4'-tert-butylbiphenyl-4-yl)aniline (BBA)-Substituted A3B Zinc Porphyrins" Journal of Chemical Sciences, 2021, 133:102, 1-12.

Kanika Jain, Duvva Naresh, Tapta Kanchan Roy,* Lingamallu Giribabu,* Raghu Chitta* "Porphyrin Bearing Phenothiazine Pincers as Hosts for Fullerene Binding via Concave-Convex Complementarity: Synthesis and Complexation Study". New Journal of Chemistry, Just Accepted (DOI: 10.1039/D1NJ03727G)

S Manchala, A Gandamalla, VN Rao, SM Venkatakrishnan, V Shanker, Solar-light responsive efficient H2 evolution using a novel ternary hierarchical SrTiO3/CdS/carbon nanospheres photocatalytic system, Journal of Nanostructure in Chemistry, 1-13, 2021.

A Gandamalla, S Manchala, A Verma, YP Fu, V Shanker, Microwave-assisted synthesis of ZnAl-LDH/g-C3N4 composite for degradation of antibiotic ciprofloxacin under visible-light illumination, Chemosphere, 131182, 2021.

19. S Manchala, K Pal, V Shanker, A facile soft-template synthetic approach of surface integrated nitrogen-rich carbon nanospheres for light-weight supercapacitors, Journal of Molecular Structure 1229, 129788, 2021.

A Gandamalla, S Manchala, P Anand, YP Fu, V Shanker, Development of versatile CdMoO4/g-C3N4 nanocomposite for enhanced photoelectrochemical oxygen evolution reaction and photocatalytic dye degradation applications, Materials Today Chemistry 19, 100392, 2021.

Saikumar Manchala, Ambedkar Gandamalla, Navakoteswara Rao Vempuluru, Shankar Muthukonda Venkatakrishnan, Vishnu Shanker, High potential and robust ternary LaFeO3/CdS/carbon quantum dots nanocomposite for photocatalytic H2evolution under sunlight illumination, Journalof Colloid and Interface Science 583, 255- 266, 2021.

A Gandamalla, S Manchala, V Shanker, Facile Fabrication of Novel SrMoO4/g-C3N4 Hybrid Composite for High-Performance Photocatalytic Degradation of Dye Pollutant under Sunlight, Chemistry Select 6 (30), 7711-7721, 2021

23. Dzeneta Halilovic, Venkatachalam Rajeshkumar, and Mihaiela C. Stuparu* Synthesis and Properties of Bis-corannulenes, Org. Lett. 2021, 23, 1468–1472.

S Nagaraju, K Sathish, D Kashinath, Applications of 3,5-Dialkyl-4-nitroisoxazoles and Their Derivatives in Organic Synthesis# ChemistrySelect 6 (30), 7736-7793

S Nagaraju, K Sathish, D Kashinath, Synthesis of 4H-chromene-isoxazole hybrids via ortho-hydroxy directing cyclization of isoxazole-styrenes and Michael addition of imino-chromenes in aqueous medium, Journal of Heterocyclic Chemistry, 2021

K Sathish, S Nagaraju, D Kashinath, Dimethylurea/L-tartaric acid as deep eutectic solvent for one-pot synthesis of 2-(methylamino)-3-nitrospiro-[chromene] and N-methyl-3-nitro-4H chromen-2-amines, Synthetic Communications 51 (8), 1242-1251.

K Sathish, S Nagaraju, D Kashinath, Synthesis of spiro pyrazolone-oxindole and bicyclic pyrazolone derivatives via solvent dependent regioselective aza-1, 4/1, 6-Michael and intramolecular cycloaddition under catalyst free conditions, SynOpen, 2021

B Palakeeti, K V Reddy, K V Gobi, P N Rao, J P Chinta, Simple and efficient method for the quantification of antiepileptic drugs in human plasma by using magnetic graphene oxide-β-cyclodextrin composite as a sorbentFuture Journal of Pharmaceutical Sciences, 7, 1-13. (2021).

K Y Goud, K K Reddy, A Khorshed, V SKumar, R K Mishra, M Oraby, A H Ibrahim, H Kim, K V Gobi, Electrochemical diagnostics ofinfectious viral diseases: Trends and challenges, Biosensors and Bioelectronics, 113112 (2021).

Siliveri, Suresh; pinnepalli, sai siva kumar; Joshi, Deepak; Chirra, Suman; Goskula, Srinath; Gujjula, Sripal Reddy ; Oyler,Nathan; Narayanan, Venkatathri, An Investigation on Promoter Induced Rapid Non-Aqueous Media Synthesis of SAPO-35

and MTO reaction ACS Omega, 6 (8) (2021) 5661-5669.

Suman Chirra, Li-Fang Wang, Himanshu Aggarwal, Siva Sankari Soorian, Siliveri Suresh, Srinath Goskula, Sripal Reddy Gujjula, N. Venkatathri, Rapid synthesis of a novel nano-crystalline mesoporous faujasite type metal-organic framework, ZIF-8catalyst, its detailed characterization, and NaBH 4 assisted,enhanced catalytic Rhodamine B degradation Materials TodayCommunications, 26 (2021) 101991.

Suresh Siliveri, Suman Chirra, Srinath Goskula, Sripal Reddy Gujjula, Venkatathri Narayanan, Pd/SAPO-35: Synthesis, Characterization and its Catalytic application studies on Suzuki- Miyaura Cross Coupling Reaction. Materials Today : Proceedings, 45 (3) (2021) 3778-3783.

Suman chirra,Raju Kalakuntala, Suresh Siliveri, Srinath Goskula, Sripal Reddy Gujjula, Naresh Yadav,Venkata Ramesh Babu Gurram, S. Srinath, N. Venkatathri, Synthesis of a novel bifunctional mesoporous Ti-SBA-15-SO3H catalyst and studies on their enhanced performance and kinetic modeling of lactic acid esterification reaction with n-butanol Materials Today : Proceedings, 45 (3) (2021) 3699-3708.

Ramesh, A., Pawar, R., Shyam, P. and Ramachandraiah, A., 'Synthesis, DFT calculations and biological activity of a new Schiff base of 4-aminoantipyrine and its Co(II), Ni(II), Cu(II) and Zn(II) complexes and crystal structure of the Schiff base', Research on Chemical Intermediates, 2021, https://doi.org/10.1007/s11164-021-04552-1

Dhananjay Rao, T., Venkata Bharath, N. and Ramachandraiah, A., 'Synthesis and Spectral, Electrochemical, Protein-Docking and Biological Studies of Fluoxetine Dithiocarbamate and Its Bivalent Metal Complexes', Chemistry Africa, 2021, https://doi.org/10.1007/s42250-021-00283-3

Pavithra, T.; Sankari Devi, E.; Nagarajan, S.; Sridharan, V.; Uma Maheswari, C. Sulfur Catalyzed Metal- and Solvent-Free ABB'C Four-Component Synthesis of N-Arylidene-2-aryl-imidazo[1-2-a]azin-3-amines via Strecker Reaction, Chemistry select, 2021, 6, 3548-3552

S Manchala, A Gandamalla, NR Vempuluru, SM Venkatakrishnan, Vishnu Shanker, High potential and robust ternary LaFeO3/CdS/carbon quantum dots nanocomposite for photocatalytic H2 evolution under sunlight illumination, Journal of Colloid and Interface Science, (2020), DOI: 10.1016/j.jcis.2020.08.125.

S Manchala, V Tandava, D Jampaiah, SK Bhargava, V Shanker, A Novel Strategy for Sustainable Synthesis of Soluble-Graphene by a Herb Delphinium denudatum Root Extract for Use as Light-Weight Supercapacitors, ChemistrySelect 5 (9), (2020) 2701-2709.

Deepak Badgurjar, Bing Shan, Animesh Nayak, Lei Wu, Raghu Chitta, Thomas Meyer. Electron-Withdrawing Boron Dipyrromethene Dyes as Visible Light Absorber/Sensitizers on Semivonductor Oxide Surfaces. ACS Appl. Mater. Interfaces 2020, 12, 7768-7776.

Naresh Duvva, Suneel Gangada, Raghu Chitta,* Lingamallu Giribabu.* Bis(4'-tert-butylbiphenyl-4-yl)aniline (BBA)-substituted A3B zinc porphyrin as light harvesting material for conversion of light energy to electricity. J. Porphyr. Phthalocyanines 2020 In press.

Thamizhanban A., Guru Prasanth S., Lalitha K., Siva Prasad Y., Dinesh Kumar S., Apurba Das., John Bosco B.R., and Nagarajan S, Fabrication of Biobased Hydrophobic Hybrid Cotton Fabrics Using Molecular Self-Assembly: Applications in the Development of Gas Sensor Fabrics, ACS Omega, (2020) 5: 3839-3848 (American Chemical Society)

Guru Prasanth S., Dinesh Kumar S., Lalitha, K., Nagarajan S., and John Bosco B. R, Self-assembled sugar-based copper nanoparticles as trimethylamine sensor, Journal of Materials Science: Materials in Electronics, (2020) 31: 1594-1603 (Springer)

Gopinath K., Nagarajan S., and Karthikeyan M, Isolation of Natural Compounds from Syzygium densiflorum Fruits and Exploring its Chemical Property, Therapeutic Role in Diabetic Management , The Natural Products Journal (2020) 10: 168 (Bentham Science)

Muthukrishnan I., Karuppasamy M., Vachan B.S., Diksha R., Nagarajan S., Maheswari C.U., and Sridharan V, Chemodivergent

synthesis of functionalized methanodibenzo[b,f][1,5]diazocin-13-ylmethanones and tetrahydroquinolines via solvent-dependent AB2 and A2B2 multicomponent annulation reactions, Organic Chemistry Frontiers, (2020) 7: 1616-1625 (Royal Society of Chemistry)

Sankari Devi E., Pavithra T., Tamilselvi A., Nagarajan S., Sridharan V., and Uma Maheswari C, N-Heterocyclic Carbene Catalyzed Synthesis of TrisubstitutedEpoxides via Tandem Amidation/Epoxidation Sequence, Organic Letters, (2020) 22: 3576- 3580 (American Chemical Society)

Sandeep M., Himesh M., Siva Prasad Y., Venkatasubramanian U., Nagarajan S., and Srinandan C.S., Disperse red 15 (DR15) impedes biofilm formation of uropathogenic Escherichia coli, Microbial Pathogenesis, (2020) 138: 103772 (Elsevier)

Siva Prasad Y., Manikandan S., Lalitha K., Sandeep M., Vara Prasad R., Arunkumar R., Srinandan, C. S., Uma Maheswari C., Sridharan V., and Nagarajan S, Supramolecular gels of gluconamides derived from renewable resources: Antibacterial and anti-biofilm applications, Nanoselect, (2020) 1: 510-524 (Wiley)

Akanksha Ashok Sangolkar, Ravinder Pawar, Prediction of the [4+2]- and [5+4]-cycloaddition reactions in zig-zag carbon nanotubes via an ambimodal transition state: density functional theory calculations, RSC Advances, 10(2020), 11111-11120 (Royal society of chemistry).

Sivaparwathi Golla, Soumya Poshala, Ravinder Pawar, Hari Prasad Kokatla, Rongalite-promoted metal-free aerobic ipso-hydroxylation of arylboronic acids under sunlight: DFT mechanistic studies, Tetrahedron Letters, 61(2020) 9, 151539 (Elsevier).

Suneel Gangada, Ramya Athira Ramnagar, Akanksha Ashok Sangolkar, Ravinder Pawar, Jagadeesh Babu Nanubolu, Partha Roy, Lingamallu Giribabu, Raghu Chitta,Excitation-Wavelength-Dependent Light- Induced Electron Transfer and Twisted Intramolecular Charge Transfer in N,N-Bis(4′- tert-butylbiphenyl-4-yl)aniline Functionalized Borondipyrromethenes, The Journal of Physical Chemistry A, 124(2020) 47, 9738–9750 (American Chemical Society).

Ajmeera Ramesh, Ravider Pawar, Perugu Shyam, Allikayala Ramachandraiah, Synthesis, DFT calculations and biological activity of a new Schiff base of 4-aminoantipyrine and its Co(II), Ni(II), Cu(II) and Zn(II) complexes and crystal structure of the Schiff base, Research on Chemical Intermediates, 133(2021) 4, 102(Springer).

Suneel Gangada, Pooja, Anjaiah Boligorla, Vijendar Reddy Karla, Srikanth Bandi, Ravinder Pawar, Raghu Chitta, Photo-induced energy and electron transfer in carboxylic acid functionalized bis (4′-tert-butylbiphenyl-4-yl) aniline (BBA)-substituted A3B zinc porphyrins, Journal of Chemical Sciences, 47(2021), 4673–4697(Springer).

Ravinder Pawar, Akanksha Ashok Sangolkar, Density functional theory studies on h-BN–transition metal dichalcogenide heterostructures (TMDCs) and TMDC-h-BN-TMDC (sandwich heterostructures), Computational and Theoretical Chemistry, 1204(2021), 113417 (Elsevier).

Ravinder Pawar, Akanksha Ashok Sangolkar, Density functional theory based HSE06 calculations to probe the effects of defect on electronic properties of monolayer TMDCs, Computational and Theoretical Chemistry, 1205(2021), 113445 (Elsevier).

Mohmmad Faizan, Ravinder Pawar, DABCO as a potential catalyst for the CO2 fixation: A density functional theory and ab initio molecular dynamics study, Journal of Physical Organic Chemistry, (2021), https://doi.org/10.1002/poc.4284 (Wiley).

Akanksha Ashok Sangolkar, Ravinder Pawar, Structure, Stability, Properties, and Application of Atomically Thin Coinage Metal Flatland in Graphene Pore: A Density Functional Theory Calculation, physica status solidi (b),(2021), https://doi.org/10.1002/pssb.202100489 (Wiley).

ohmmad Faizan, Ravinder Pawar, Pentazole (N5H) as a Possible Catalyst for CO2 Activation: Density Functional theory (DFT) and Ab initio Molecular Dynamics (AIMD) Studies, Journal of Physical Organic Chemistry, (2021), 10.1002/POC.4303 (Wiley).

Ibomcha Singh Thangjam, Rajeshkhanna Gaddam, Tolendra Kshetri, Han Lin, Nam Hoon Kim, Lee Joong Hee, High-performance solid-state hybrid supercapacitor enabled by metal-organic framework-derived multi-component hybrid electrodes of Co-N-C nanofibers and Co2-xFexP-N-C micropillars, Journal of Materials Chemistry A, 8(2020): 26158–26174 (Royal Society of Chemistry)

Shaik Gouse Peera, Ravindranadh Koutavarapu , Chao Liu , Rajeshkhanna Gaddam, Arunchander Asokan, Venkata Reddy Ch, Cobalt Nanoparticle-Embedded Nitrogen-Doped Carbon Catalyst Derived from a Solid-State Metal-Organic Framework Complex for OER and HER Electrocatalysis, Energies, 14(2021): 1320(1-14) (MDPI)

Ibomcha Singh Thangjam, Rajeshkhanna Gaddam, Uday Narayan Pan, Tolendra Kshetri, Han Lin, Nam Hoon Kim, Lee Joong Hee, Alkaline Water Splitting Enhancement by MOF-Derived Fe–Co–Oxide/Co@NC-mNS Heterostructure: Boosting OER and HER through Defect Engineering and In Situ Oxidation, Small, 17(2021): 2101312(1-14) (Wiley)

Thunga, S., Poshala, S., Anugu, N., Konakanch, R., Satheesh, V., Kokatla, H. P. An efficient Pd (II)-(2-aminonicotinaldehyde) complex as complementary catalyst for the Suzuki-Miyaura coupling in water, Tetrahedron Letters 60(2020) 31: 2046-2048.

Ramaiah K., Jyothi P. and Laxma Reddy K., Investigation of structures, FTIR, FT-Raman, in vivo anti-inflammatory, molecular docking and molecular characteristics of 2-amino-3-pyridine carboxaldehyde and its copper(II) complex using experimental and theoretical approach, Polycyclic Aromatic Compounds, (2020) DOI: 10.1080/10406638.2020.1725899

Jyothi P., Ramaiah K., Byru Venkatram R. and Laxma Reddy K., Barrier potentials, molecular structure, force killed calculations and quantum chemical studies of some bipyridine di-carboxylic acids using the experimental and theoretical using (DFT,IVP) approach, Molecular Simulation, (2020) Just accepted, in press

Velugula, K., Kumar, A., Chinta, J.P. Nuclease and anticancer activity of antioxidant conjugated terpyridine metal complexes Inorganica Chimica Acta, (2020), 507: 119596

Venkanna Muripiti, Ramesh Gondru, Srilakshmi.V. Patri, Review of Zinc (II) scaffolds: Efficient role in gene delivery. Chemistry Select (2020,

A.Ajay Kumar, C. Suman, S. Siliveri, G. Srinath, G. Sripal Reddy, N. Venkatathri, "Development of Fe3O4/Titanosilicate/g-C3N4 ternary nanocomposites and their photocatalytic effect on the degradation of Rhodamine B under Sunlight irradiation Journal of Water Process Engineering, 34 (2020) 101141-101149.

Parameshwarachary jilloju,Mamidala Srikanth ,Sthalam Vinay Kumar and Rajeswar Rao Vedula. One pot multi- component synthesis of substituted 2-[6_-phenyl [1,2,4] triazolo[3,4-b][1,3,4]thiadizine -3-yl]2,3-dihydrophthazine-1,4-diones Polycyclic Aromatic Compounds 2020, DOI.10.1080/10406638.2019.1709212

Srikanth Mamidala Sudhir Reddy Peddi R Kowshik Aravilli Parameshwara Chary Jilloju Rajeswar Rao Vedula. Microwave irradiated one pot, three component synthesis of a new series of hybrid coumarin based thiazoles: Antibacterial evaluation and molecular docking studies Journal of Molecular Structure February 2020, accepted article

Parameshwara Chary Jilloju Perugu Shyam Ananthula Sanjeev Rajeswar Rao Vedula, Four-component, one–pot synthesis of (E)-N-benzylidene-3-(benzylthio)-5-(3,5-dimethyl-1H-pyrazol-1-yl)-4H-1,2,4-triazol-4-amines and their DNA binding and molecular docking studies Journal of Molecular Structure, 5 February 2021

Srikanth Mamidala, V. Sushma Mudigunda,Sudhir Reddy Peddi,Kiran Kumar Bokara,Vijjulatha Manga & Rajeswar Rao Vedula Design and synthesis of new thiazoles by microwave-assisted method: Evaluation as an anti-breast cancer agents and molecular docking studies synthetic communications/doi.org/10.1080/00397911.2020.1781184

M. Pradhan*, R. Chakraborty, S. Rudra, S. Koley, P. K. Maji, A. K. Nayak, S. Das, U. Nandi. Intercalation pseudocapacitance in Bi2Se3-MnO2 nanotube composite for high

electrochemical energy storage. "Electrochimica Acta. 2021, 367, 137531 "

Chakraborty, P. K. Maji*, C. Verma , A. K. Nayak , Shib Shankar Singha, M. Pradhan* Inherent Oxygen and Nitrogen Doped Porous Carbon Derived from Biomass of Tamarind Leaf for High Performance Supercapacitor Application. Energy Technol. 2021, 9, 2000734

Halilovic, D.; Rajeshkumar. V.; Mihaiela C. Stuparu* Synthesis and Properties of Bis-corannulenes Organic Letters, 2021, 23,1468–1472

Venkatesh Ravula, Yu-Lun Lo, Yi-Ting Wu, Chien-Wen Chang, Srilakshmi V. Patri, Li-Fang Wang. Arginine-Tocopherol Bioconjugated Lipid Vesicles for Selective pTRAIL Delivery and Subsequent Apoptosis Induction in Glioblastoma Cells. Accepted in Materials Science & Engineering C. 2021, in press

Venkanna Muripiti, Brijesh Lohchania, Venkatesh Ravula, Shireesha Manturthi, Srujan Marepally, Amarnath Velidandi, Srilakshmi V Patri Dramatic influence ofthe hydroxy functionality of azasugar moiety in the head group region of tocopherol-based cationic lipids on in vitro gene transfection efficacies, New Journal of Chemistry, 2021, in press

Raghu Chitta*, Deepak Badgurjar, Govind Reddy, Kanika Jain, Vijendar Reddy Karla, Anjaiah Boligorla and Lingamallu Giribabu* Light-induced energy transfer followed by electron transfer in axially co-ordinated benzothiazole tethered zinc porphyrin-fullero[C60/C70]pyrrolidine triads J. Porphyrins Phthalocyanines 2021; 25: 469–483

Deepak Badgurjar, Sairaman Seetharaman, Francis D'Souza,*and Raghu Chitta* One-Photon Excitation Followed by a Three-Step Sequential Energy–Energy–Electron Transfer Leading to a Charge-Separated State in a Supramolecular Tetrad Featuring Benzothiazole–Boron-Dipyrromethene–Zinc Porphyrin–C60 Chem. Eur. J. 2021, 27, 2184 – 2195

Patrycja Lacha, Maciej Cieplak, Krzysztof R. Noworyta, Piotr Pieta, Wojciech Lisowski, Jakub Kalecki, Raghu Chitta, Francis D'Souza, Wlodzimierz Kutner, Piyush Sindhu Sharma Self-reporting molecularly imprinted polymer with the covalently immobilized ferrocene redox probe for selective electrochemical sensing of p-synephrine Sensors and Actuators B: Chemical , 2021, 344, 130276.

Suneel Gangada, Pooja, Anjaiah Boligorla, Vijendar Reddy Karla, Srikanth Bandi, Ravinder Pawar and Raghu Chitta* Photo-induced Energy and Electron Transfer in Carboxylic Acid Functionalized Bis(4'-tert-butylbiphenyl-4-yl)aniline(BBA)-Substituted A3B Zinc Porphyrins Journal of Chemical Sciences, 2021, Just Accepted

Shekher Kummari, V. Sunil Kumar, K. Yugender Goud, K. Vengatajalabathy Gobi Nano-Au particle decorated poly-(3-amino-5-hydroxypyrazole) coated carbon paste electrode for in-vitro detection of valacyclov, Journal of Electroanalytical Chemistry, 2021, in press

Babji Palakeeti, K Vijendar Reddy, K Vengatajalabathy Gobi, Pothuraju Nageswara Rao, Jugun Prakash Chinta Simple and efficient method for the quantification of antiepileptic drugs in human plasma by using magnetic graphene oxide-β-cyclodextrin composite as a sorbent, Future Journal of Pharmaceutical Sciences, 7, 1-13 (2021), 2021

K Yugender Goud; K Koteshwara Reddy; K. Ahmed; V Sunil Kumar; Rupesh K Mishra; Mohamed Oraby; A H Ibrahim; Hern Kim; K Vengatajalabathy Gobi Electrochemical diagnostics of infectious viral diseases: trends and challenges Biosensors and Bioelectronics, 180, 113112 (2021) 2021

K Koteshwara Reddy; H Bandal; M Satyanarayana; K Yugender Goud; K Vengatajalabathy Gobi; T Jayaramudu; J Amalraj; H Kim Recent trends in electrochemical sensors for vital biomedical markers using hybrid nanostructured materials Advanced Science, 7, 1902980 (2020)

V V N Phanikumar; B V Appa Rao; K V Gobi; R Gopalan; R Prakash A Sustainable Tamarind Kernel Powder Based Aqueous Binder for Graphite Anode in Lithium-Ion Batteries ChemistrySelect, 5, 1199-1208 (2020)

K Yugender Goud; K Koteshwara Reddy; M Satyanarayana; K Shekher; K Vengatajalabathy Gobi A review on recent

developments in optical and electrochemical aptamer-based assays for mycotoxins using advanced nanomaterials Microchimica Acta, 187, 1-32 (2020)

V Sunil Kumar; Kummari Shekher; K Yugender Goud ; M Satyanarayana; K V Gobi One-pot synthesis of Pd20-xAux nanoparticles embedded in nitrogen doped graphene as high-performance electrocatalyst toward methanol oxidation International Journal of Hydrogen Energy, 45, 1018-1029 (2020)

Shankar Barapati, M. Raghasudha, P. Veerasomaiah Effect of Al Doping on Magnetic Properties of Co-Mn Nanoferrites Synthesized via Citrate-Gel Method, Asian Journal of Chemistry , 33, 1125-1132 (2021)

Srikanth Mamidala, Sudhir Reddy Peddi, R. Kowshik Aravilli, Parameshwara Chary Jilloju, Vijjulatha manga, Rajeswar Rao Microwave irradiated one pot three component synthesis of a new series of hybrid coumarin based thiazoles; A nti bacterial evaluation and molecular docking studies Journal of molecular structure. 1225 (2021) 129114

Srikanth Mamidala, Venugopal vangala, Srikaran reddy peddi, Raju Chedupaka,Vijjulatha manga, Rajeswar Rao A facile one pot three component synthesis of a new series of 1,3,4 thiadiazines; Anticancer evaluation and molecular docking studies. Journal of molecular structure. 1233 (2021) 130111

"Parameshwara Chary Jilloju , Perugu Shyam , Chedupaka Raju & Rajeswar Rao Vedula "An Efficient One-Pot Synthesis of 6-Phenyl-3-(1HPyrazol-1-yl)[1,2,4]Triazolo[3,4-b][1,3,4]Thiadiazole Derivatives and Their Antimicrobial Evaluation and Molecular Docking Studies" Polycyclic Aromatic Compounds. 2021, in press

Parameswara chary jilloju, Perugu shyam, Ananthula Sanjeev, Rajeswar Rao Vedula Four component, one pot synthesis of (E)-N-benzylidene-3-(benzylthio)-5-(3,5-dimethyl)-1H-pyrazole-1-yl)-4H-1,2,4-triazole-4-amines and their DNA binding and molecular Journal of molecular structure. 1255 (2021) 129140

Srikanth Mamidala, R. Kowshik Aravilli, Gondru Ramesh, Shaik Khajavali, Raju Chedupaka, Vijjulatha manga A facile one-pot, three-component synthesis of a new series of thiazolylnpyrazole carbaldehydes: In vitro Journal of molecular structure. 1236 (2021) 130356

"Parameshwara Chary Jilloju, Mamidala Srikanth, Sthalam Vinay Kumar & Rajeswar Rao Vedula "One-Pot, Multi-Component Synthesis of Substituted 2-(6-Phenyl-7H-[1,2,4]Triazolo[3,4-b] [1,3,4]Thiadiazin-3-yl)-2,3 Dihydrophthalazine-1,4-Diones Polycyclic Aromatic Compounds 2020,

Nakka Niveditha,a Munnisa Begum,a Duvvala Prathibha,a Kalam Sirisha,*,a Porika Mahender,b Chandrashekar Chitra,c Vedula Rajeswar Rao,d Vanga Malla Reddy,e and Garlapati Achaiah "Design, Synthesis and Pharmacological Evaluation of Some C3 Heterocyclic-Substituted Ciprofloxacin Derivatives as Chimeric Antitubercular Agents, Chem. Pharm. Bull. 68, 1170–1177 (2020)

Shekher Kummari, V. Sunil Kumar, K. Vengatajalabathy Gobi Facile Electrochemically Reduced Graphene Oxide-Multi-walled Carbon Nanotube Nanocomposite as Sensitive Probe for in-vitro Determination of Nitrofurantoin in Biological Fluids Electroanalysis, 32, 2452-2462 (2020)

Babji Palakeeti, K Vijendar Reddy, K Vengatajalabathy Gobi, Pothuraju Nageswara Rao, Jugun Prakash Chinta Simple and efficient method for the quantification of antiepileptic drugs in human plasma by using magnetic graphene oxide-β-cyclodextrin composite as a sorbent Future Journal of Pharmaceutical Sciences, 7, 1-13 (2021)

Babji Palakeeti, Pothuraju Nageswara Rao & Jugun Prakash Chinta Development of new stability indicating UPLC-UV method for the extraction and quantification of perindopril and indapamide from human plasma Future Journal of Pharmaceutical Sciences, 7, 77 (2021)

Neeli Satyanarayana,a Kota Sathish,a Sakkani Nagaraju,a Ravinder Pawar,a Mohmmad Faizan,a Murgan Arumugavel,b T. Shirisha,a and Dhurke Kashinath Metal-free, one-pot synthesis of 2-styrylquinolines via Friedländer annulation and sp3 C-H activation using 1,3-dimethylurea and L-tartaric acid (3:1) as deep eutectic solvent New Journal of Chemistry, 2021 (In press)

S Nagaraju, K Sathish, D Kashinath Applications of 3,5-Dialkyl-4-nitroisoxazoles and Their Derivatives in Organic Synthesis ChemistrySelect 6 (30), 7736-7793

S Nagaraju, K Sathish, D KashinathSynthesis of 4H-chromene-isoxazole hybrids via ortho-hydroxy directing cyclization of isoxazole-styrenes and Michael addition of imino-chromenes in aqueous conditions Journal of Heterocyclic Chemistry, 2021, 58 (6), 1252-1258

K Sathish, S Nagaraju, D Kashinath Dimethylurea/L-tartaric acid as deep eutectic solvent for one-pot synthesis of 2-(methylamino)-3-nitrospiro-[chromene] and N-methyl-3-nitro-4H chromen-2-amines Synthetic Communications 51 (8), 1242-1251

K Sathish, S Nagaraju, D KashinathSynthesis of spiro pyrazolone-oxindole and bicyclic pyrazolone derivatives via solvent dependent regioselective aza-1, 4/1, 6-Michael and intramolecular cycloaddition under catalyst-free conditions SynOpen 2021; 05(02): 123-133 DOI: 10.1055/a-1480-9837"

Bhargava Sai Allaka, Srinivas Basavoju and Gamidi Rama Krishna A Green Catalyst Fe(OTs)3/SiO2 for theSynthesis of 4-Pyrrolo-12-oxoquinazolines ChemistrySelect 5(46):14721-14728, https://doi.org/10.1002/slct.202004012

Srihari Konduri, Vinay Pogaku, Dr. Jyothi Prashanth, Dr. Vagolu Siva Krishna, Prof. Dharmarajan Sriram, Dr. Srinivas Basavoju, Dr. J. N. Behera, Prof. Koya Prabhakara Rao Sacubitril-Based Urea and Thiourea Derivatives as Novel Inhibitors for Anti-Tubercular against Dormant Tuberculosis ChemistrySelect 6(16):3869-3874, https://doi.org/10.1002/slct.202004724

Bhargava Sai Allaka, Srinivas Basavoju and Gamidi Rama Krishna A Photoinduced Multicomponent Regioselective Synthesis of 1,4,5-Trisubstituted-1,2,3-Triazoles: Transition Metal-, Azide- and Oxidant-Free Protocol Advanced Synthesis & Catalysis 363(14), 2021. https://doi.org/10.1002/adsc.202100321

Thandra, Dhananjay Rao, Bojja, Rajeshwar Rao, Allikayala, Ramachandraiah* Synthesis, spectral studies, molecular structure determination by single crystal X-ray diffraction of (E)-1-(((3-fluoro-4-morpholinophenyl)imino)methyl)napthalen-2-ol and computational studies by Austin model-1(AM1), MM2 and DFT/B3LYP, SN Applied Sciences, 2020, 11, 2523-3971 UR - https://doi.org/10.1007/s42452-020-03525-0 DO - 10.1007/s42452-020-03525-0

Dhananjay Rao Thandra, Ramachandraiah Allikayala Synthesis, characterization, molecular structure determination by single crystal X-ray diffraction, and Hirshfeld surface analysis of 7-fluoro-6-morpholino-3-phenylquinolin-1-ium chloride salt and computational studies of its cation, Journal of Molecular Structure, 2022, 1250, 131701, https://doi.org/10.1016/j.molstruc.2021.131701.

Divya Boosagulla, Sreekanth Mandati, Ramachandraiah Allikayala, Bulusu V. Sarada Growth mechanism of pulse electrodeposited cadmium sulfide and zinc sulfide thin films with tartaric acid and glycerol as additives, Thin Solid Films 2022, 741, 139011, https://doi.org/10.1016/j.tsf.2021.139011

Divya Boosagulla, Sreekanth Mandati, Prashant Misra, Ramachandraiah Allikayala, Bulusu V. Sarada, Pulse electrodeposited zinc sulfide as an eco-friendly buffer layer for the cadmium-free thin-film solar cells, Superlattices and Microstructures, 2021, 160, 107060, https://doi.org/10.1016/j.spmi.2021.107060

Naveenkumar Anugu, Sanjeeva Thunga, Sivaparwathi Golla, Hari Prasad KokatlaIodine Catalyzed C2-H Formamidation of Quinoline N-Oxides using Isocyanides: A Metal- Free Approach Advanced Synthesis & Catalysis 2021, accepted.

R. Chedupaka, V. Papisetti, A.A. Sangolkar, R.R. Vedula, A Facile One-Pot Synthesis of Benzimidazole-Linked Pyrrole StructuralMotifs via Multicomponent Approach: Design, Synthesis, and Molecular Docking Studies, Polycycl. Aromat. Compd. (2021) 1–15. https://doi.org/10.1080/10406638.2021.1995010.

K. Vaarla, V. Vishwapathi, K. Vermeire, R.R. Vedula, C. V. Kulkarni, A facile one pot multi component synthesis of alkyl 4-oxo-coumarinyl ethylidene hydrazono-thiazolidin-5-ylidene acetates and their antiviral activity,

J. Mol. Struct. 1249 (2021) https://doi.org/10.1016/j.molstruc.2021.131662.

Funded Research Projects

Synthesis and Anticancer Activity of Sugar-Based Natural Saffloflavonesides and their Heterocyclic Analogs Dr. S. Nagarajan and Asim Bikas Das, No.CRG/2018/001386 dt 07-03-2019, 38.06 lakhs, DST-SERB, 3 years

Fabrication of Printable Nanosensor Patch for Direct Detection of Plant Diseases from Nanocellulose Based Polydiacetylene using Molecular Self-assembly, Dr. S. Nagarajanand C. Jugun Prakash, No. SPARC/2018 2019/P263/SL, dt 31-05-2019, 49.79 lakhs, MHRD-SPARC, 2 years

Hexabenzocoronene as a versatile Template for Integrating Panchromatic Photosensitizer-Cheap Metal Catalyst to a Single Platform: A Novel Class of Cost-Effective Catalysts for Efficient Photo-Driven Water Oxidation, Dr. Raghu Chitta, CRG/2018/002661 dated 09/03/2019, 44 lakhs, DST SERB CRG, 3 years

Heterocyclic-based Peptidomimetics for Non-viral Gene Delivery, P.V.SRILAKSHMI, CRG/2018/001049 dated 20/03/2019, 41.92 lakhs, SERB-DST, 3 years

Oxidative Photocyclization Strategy to Aromatic Extension of Corannulene D. V. Rajeshkumar INSPIRE Faculty Award - Offer letter[DST/INSPIRE/04/2016/000295]; date: 19 August, 2016, 35 lakhs, DST-INSPIRE, 5 years

Strategy for the synthesis of indole fused benzothiazepines and benzothiazines and explore their biological activity D. V. Rajeshkumar SRG/2020/001836; Dated: 06-11-2020 25 lakhs, DST-SERB, 2 years

Multidimensonal Ultrafast Spectroscopy Dr. N. Sri Ram Gopal, Prof. D. Narayana Rao, Dr. Raghu Chitta UoH/IoE/RC1/RC1-20-011 55 lakhs Institute of Eminence 3 years

Novel Biocompatible Nanocomposites for SERS Based Sensing of Biomolecules and Toxic Metal Ions Dr. Mukul Pradhan DST/ INSPIRE Faculty Award /2016/DST/INSPIRE/04/2015/003227 35 lakhs DST-INSPIRE 5 years

"Development of Metal-OrganicFramework-Derived Hybrid Composite Materials as Bifunctional Electrodes for Production of H_2 by Water Electrolysis" Dr. Rajeshkhanna Gaddam SRG/2021/001028; Dated 02-November-2021 25 lakhs DST-SERB 2 years

Ravinder Pawar Metal Flatlands (Atomically Thin Two-Dimensional Metals): Designing, Properties and Applications, ECR/2018/002346 Dated 18.03.2019, 41.17 lakhs, DST-SERB

Kokatla, H.P., Rongalite/Molecular Oxygen: A mild, low cost and green reagent for oxidation of organic substrates under sunlight EEQ/2018/001257, 18.03.2019, 41.02 Lakhs

Kokatla, H.P., Novel glycosylation methods and their application to biologically important molecules, DST/INSPIRE/04/2014/002550, 07.01.2016, 35.0 Lakhs.

Ravinder Pawar, Designing of nanoreactors for carbon dioxide (CO2) conversion into useful chemicals, DST, EEQ/2019/000656 Dated 19.12.2019 3 years

Mentoring and Hand-Holding of School Education System in Northern Telangana, Prof. A. Ramachandraiah and Prof. Laxma Reddy (Co-Coordinator), RAA-SCERT Project, 27 lakhs

Science Communication, Popularization and Extension project 93 lakhs, DST-Vigyan Prasar

DST FIST, Chemistry department, 1.67 crore, DST

S. No.	Title	Total Amount sanctioned (lakhs)	Funding agency and Project No.	Installment 1,2018-2019 lakhs	Installment 2, 2019-2020 lakhs	Installment 3, 2020-2021 lakhs
1	Synthesis and	38.06	DST-SERB,	18.30	10.00	9.00

	Anticancer Activity of Sugar-Based Natural Saffloflavonesides and their Heterocyclic Analogs		No.CRG/2018/001386			
2	Fabrication of Printable Nanosensor Patch for Direct Detection of Plant Diseases from Nanocellulose Based Polydiacetylene using Molecular Self-assembly	49.79	MHRD, SPARC, No. SPARC/2018-2019/P263/SL	2.0	-	-
3	Hexabenzocoronene as a versatile Template for Integrating Panchromatic Photosensitizer-Cheap Metal Catalyst to a Single Platform: A Novel Class of Cost-Effective Catalysts for Efficient Photo-Driven Water Oxidation	44.00	DST-SERB, No.CRG/2018/002661	25.04	10.0	7.50
4	Heterocyclic-based Peptidomimetics for Non-viral Gene Delivery	41.92	DST-SERB, No.CRG/2018/001049			
5	Oxidative Photocyclization Strategy to Aromatic Extension of Corannulene	35	DST, DST/INSPIRE/04/2016/000295	-	10.21	-
6	Strategy for the synthesis of indole fused benzothiazepines and benzothiazines and explore	25	DST-SERB, SRG/2020/001836	-	16.56	

	their biological activit					
7	Multidimensonal Ultrafast Spectroscopy	55	UoH/IoE/RC1/RC1-20-011	-	1.0	1.0
8	Novel Biocompatible Nanocomposites for SERS Based Sensing of Biomolecules and Toxic Metal Ions	35	DST/ INSPIRE Faculty Award /2016/DST/INSPIRE/04/2015/003227			
9	"Development of Metal-OrganicFramework-Derived Hybrid Composite Materials as Bifunctional Electrodes for Production of H_2 by Water Electrolysis"	25	DST-SERB SRG/2021/001028; Dated 02-November-2021			
10	Metal Flatlands (Atomically Thin Two-Dimensional Metals): Designing, Properties and Applications	41.17	DST-SERB ECR/2018/002346 Dated 18.03.2019			
11	Rongalite/Molecular Oxygen: A mild, low cost and green reagent for oxidation of organic substrates under sunlight	41.02	DST-SERB, EEQ/2018/001257, 18.03.2019	27.25	8.0	8.0
12	Novel glycosylation methods and their application to biologically important molecules	35	DST, DST/INSPIRE/04/2014/002550	7.0	7.0	-
13	Designing of nanoreactors for carbon		DST, EEQ/2019/000656 Dated 19.12.2019			

	dioxide (CO2) conversion into useful chemicals					
14	Mentoring and Hand-Holding of School Education System in Northern Telangana	27	RAA-SCERT Project			
15	Science Communication , Popularization and Extension project	93	DST-Vigyan Prasar			
16	DST - FIST	167	DST	-	155	-

Patents (Filed, Published, Granted and Licensed)

Patent Details: File No. 2021106376: PROCESS FOR PREPARING FARNESOL-BASED CATIONIC LIPIDS FOR CARRYING NUCLEIC ACIDS INTO DESIRED CELL LINES. 2021, Asian Patent

M. Pradhan, S. Rudra, R. Chakraborty File No. 202141054738 Synthesis of Graphitized Carbon from Biomass using Focused Sunlight in a Newly Designed Reaction Setup for Energy Storage Application, 2021

Books and Book Chapters

Rebaka Vara Prasad, Rachamalla Arun Kumar, Devendra Sharma, Atul Sharma, Subbiah Nagarajan,* Chapter 21 - Sophorolipids and rhamnolipids as a biosurfactant: Synthesisand applications, Editor(s): Inamuddin, Charles Oluwaseun Adetunji, Abdullah M. Asiri,Green Sustainable Process for Chemical and Environmental Engineering and Science,

Saikumar Manchala, Vijayakumar Elayappan, Hai-Gun Lee, Vishnu Shanker* Chapter-7 Plasmonic photocatalysis: an extraordinary way to harvest visible light, Editor(s): Mohan Sakar, R. Geetha Balakrishna and Trong-On Do, Photocatalytic Systems by DesignMaterials, Mechanisms and Applications, Elsevier, 2021, Pages 187-216

K Koteshwara Reddy, K Yugender Goud, M Satyanarayana, Shekher Kummari, V Sunil Kumar, Harshad Bandal, Tippabattini Jayaramudu, Radha Devi Pyarasani, Hern Kim, John Amalraj, K Vengatajalabathy Gobi,* Chapter-4 "Metal oxide-metal nanocomposite-modified electrochemical sensors for toxic chemicals" pp. 79-137 in Metal Oxides in Nanocomposite-Based Electrochemical Sensors for Toxic Chemicals, Eds. A. Pandikumar, P. Rameshkumar, 2021, Elsevier.

Siva Prasad Y., Lalitha K., Sravya Chowdary A., Jugun Prakash C., Nagarajan S*, (2021) Metals and Metal Complexes for Medicinal Applications (Chapter 3), S. Rajendran et al. (eds.), Metal, Metal Oxides and Metal Sulphides for Biomedical Applications, Environmental Chemistry for a Sustainable World 58, Springer, Cham

Siva Prasad Y., Lalitha K., Thamizhanban A., Atul S., Muskan B., Nagarajan S*, (2021) Application of Metal and Metal Oxides in Sustainable Synthesis and Biology (chapter 9), S. Rajendran et al. (eds.), Metal, Metal Oxides and Metal Sulphides for Biomedical Applications, Environmental Chemistry for a Sustainable World 58, Springer, Cham

Conferences, workshops, FDPs, Webinars organized

A Four-Day Faculty Training Program on Learning Management System with MOODLE, 14-07-2020 to17-07-2020, For the Faculty of NIT Warangal (104) MHRD under PMMMNMTT Scheme, Organizers: Prof. VT. Somasekhar, Prof. A. Ramachandraiah

A Four-Day Faculty Training Program on Learning Management System with MOODLE, 21-07-2020 to24-07-2020, For the Faculty of NIT Warangal (104), MHRD under PMMMNMTT Scheme, Organizers: Prof. VT. Somasekha,r Prof. A. Ramachandraiah

A Four-Day Faculty Training Program on Learning Management System with MOODLE, 27-07-2020 to 31-07-2020 , For the Faculty of NIT Warangal (102), MHRD under PMMMNMTT Scheme, Organizers: Prof. VT. Somasekhar, Prof. A. Ramachandraiah

A Six-Day FDP on Content Preparation and Delivery for Online Mode of Teaching, 05-10-2020 to 10-10-2020, For the Faculty of Higher Education (35), MHRD under PMMMNMTT Scheme, Organizers: Dr. Thyageshwar C, Dr. T. Naresh, Dr. M. Satish, Prof. A. Ramachandraiah

A Five-Day FDP on Modern Digital Library Science and Technologies for Teaching, Learning and Research, 04-01-2021to 08-01-2020, For the Faculty of Higher Education (93) MHRD under PMMMNMTT Scheme, Organizers: Dr. K. Veeranjaneyulu, Prof. A. Ramachandraiah

A Six-Day FDP on Teaching and Learning of NMR Spectrscopy for StructureDetermination, 19-02-2021 to 24-02-2021, For the Faculty of Higher Education (86), MHRD under PMMMNMTT Scheme, Organizers: "Dr. Srinivas B, Dr. Hari Prasad K,Prof. K. Laxma Reddy"

A Six-Day FDP onTeaching and Learning of Green Chemistry: Nurturing a New Generation of Chemists, 26-02-2020 to 03-03-2021, For the Faculty of Higher Education (62), MHRD under PMMMNMTT Scheme, Organizers: "Dr. Hari Prasad K, Dr. Srinivas B, Dr. A. Ramachandraiah"

A Six-Day FDP on Applications of DFT (DENSITY FUNCTIONAL THEORY) in Teaching and Learning Chemistry, Physics & Material Science - With Software for Chemistry and Materials (SCM-AMS), 19-03-2021 to 24-03-2021, For the Faculty of Higher Education (53), MHRD under PMMMNMTT Scheme, "Dr. M. Raghasudha, Dr. Ravinder Pawar, Prof. A. Ramachandraiah"

"A Six-Day Online Faculty Development Program on "EFFECTIVE TEACHING AND LEARNING OF MODERN DRUG DISCOVERY APPROACHES" ", 4th March, 2021 to 9thMarch, 2021, MHRD under PMMMNMTT Scheme, Organizers: Dr. D. Kahinath and Dr. V. Rajesh Kumar

The Department of Chemistry organized an a Three-Day International Conference on "Conventional and Digital Methods in Chemical Education (CDMCE-2021)" during 29th – 31st July, 2021, on the eve of the retirement and in the honour of a senior chemistry faculty, Prof. A. Ramachandraiah, who is retiring after 36 years of service on 31.07.2021.G

Guest Talks/webinars delivered

Prof. K. Laxma Reddy delivered an expert lecture on "Environmental Issues and Challenges" on 8-8-2021 by online: Organized by Social Welfare Govt Degree College for Women, Khammam.

Prof. K. Laxma Reddy deliveredan expert lecture on "Universal Human Values" through SCoPE Project to Degree College students and Faculty on 26-8-2021 by online

Prof. K. Laxma Reddy deliveredan expert Lecture on "Group Theory-Applications" on 2-9-2021 by online: Organized by Free Coaching Camp, Kakatiya Degree College, Hanamkonda.

Prof. K. Laxma Reddy deliveredan expert lecture on " Chemistry- in Our Daily Life" on 3-9-2021 through SCoPE project to students and teachers of Jangaon District by online

Prof. K. Laxma Reddy deliveredan expert lecture on "Science and Society" on 5--9-2021 by online. Organized by Navodaya Residential School, Mamaunur, Hanamkonda District

Prof. K. Laxma Reddy deliveredan expert lecture on "Ozone Layer-Depletion: Consequences and Remedies" on 16-9-2021 by online: Organized by JVV, Kazipet Mandal Committee

Prof. K. Laxma Reddy deliveredan expert lecture on "Environmental Issues and SCoPE project Activities" on 19-9-2021 at Vagdevi College, Hanamkonda: Organized by JVV, Hanamkonda District

Prof. K. Laxma Reddy deliveredan expert lecture on " Chemistry-A Inseparable Bond in Our Life" on 25-9-2021 through SCoPE project to students and teachers of ZPHS, Kamareddygudem and ZPHS, Dharmapuram, Jangaon District by online

Prof. V. Rajeswar Rao delivered a lecture on (28-9-21) Advanced Synthetic Methods in Organic Chemistry in the Faculty development Programme on "COMPUTATIONAL TECHNIQUES INCHEMICAL ANALYSIS AND QUANTITATIVE BIOLOGY" during 20-09-2021 to 29-09-2021".Organised by E & ICT Academy, NIT Warangal in association with IQAC, Vaagdevi Degree & PG College, Hanumakonda, Telangana.

Prof. V. Rajeswar Raodelivered a lecture on (6-9-21) Synthesis of Organic molecules :Planning and Execution in the "One week short term course on modern methods in Organic synthesis and Analytical Techniques" during 30-9-21 to 6.9.21 .Organized by JNTU ,Hyderabad.

Prof. V. Rajeswar Raodelivered a lecture on(26-7-21) Recent Advances in MCRs Chemistry in the ICQR international webinar on Advances in Chemistry organized by Govt. Gajanand Agarwal P.G.College Bhatapara(C.G).

Prof. V. Rajeswar Raodelivered a lecture on MCRs as tools for Drug Discovery(18-3-21)in a two day International Conference Emerging Trends in Medicinal Chemistry (ETMC -2021) during 18to 19 March 2021 Organized by SVNIT, Surat.

Prof. V. Rajeswar Rao delivered a lecture on Organic Synthesis (28-1-21) in a two day National Conference on "Advances in Chemistry and Chemical Engineering (NCACACE-21) during 28-29-2021" organized by JNTUHyderabad.

Prof. P. V. Srilakshmidelivered an expert lecture in International Conference on "Current Trends in Advanced Chemistry" (CTAC-2021). Topic "Tocopherol Based Cationic Lipids for Non-viral Gene Delivery" on 21.09.2021 organized by the Department of Chemistry, Saranathan College of Engineering, Tiruchirappalli-620012,Tamil Nadu, India during September 20th to 21st 2021.

Dr. S. Nagarajan served as a resource person in the One week Online Faculty Development Programme on "Green Technology and Sustainable Engineering in Chemistry" and delivered a talk on "Green Technology in Chemical Synthesis" on 06.08.2021 organized by the Department of Chemistry, Adhiyamaan College of Engineering, Hosur, Tamil Nadu from 02.08.2021 to 06.08.2021.

Dr. Raghu Chittadelivered an expert lecture on "Organometallic Chemistry of Transition Metals" at Kakaraparti Bhavanarayana College, Vijayawada on 04/09/2021.

Dr. Vishnu Shanker delivered a lecture on Nanomaterials: Synthesis and Applications in the Faculty Development Programme on "Computational Techniques in Chemical Analysis and Quantitative Biology" during 20-09-2021 TO 29-09-2021 Organised by E & ICT Academy, NIT Warangal in association with IQAC, Vaagdevi Degree & PG College, Hanumakonda, Telangana.

Dr. K. Hari Prasaddelivered an expert lecture at the FDP on Advances in Synthetic Organic Chemistry and their Applications in Medicinal Chemistry during 23rd– 27th August 2021, organized by the Department of Chemistry, NIT Calicut.

Dr. D. Kashinath delivered an invited lecture on "Organic Chemist's perception to Modern Drug Discovery Process" in a Five Days Faculty Development Program on Advances in Synthetic Organic Chemistry and Their Applications in Modern Medicinal Chemistry

conducted by the Department of Chemistry, NIT Calicut during 23rd– 27th August 2021

Dr. D. Kashinath delivered an invited lecture on "Modern Approaches for Improving Bioavailability of Drugs" in a National Seminar on Insoluble Drugs: Drug Delivery Challenges and Advances in Bioavailability Enhancement Techniques St. Peter's Institute of Pharmaceutical Sciences, Vidya Nagar, Hanamkonda (Dist), TS on August 17, 2021

Dr. D. Kashinath delivered an invited lecture on "Synthesis of 3-hydroxy-2-oxindole-pyridine and bis-indolyl-2-oxindoles via sp3 C-H functionalization, alkynylation and Friedel-Crafts reactions using Iron and Copper-based nanoparticles" in 4th National Conference in Chemistry (NConC-2021), Discipline of Chemistry, IIT Gandhinagar, 6-7 Aug 2021

Dr. D. Kashinath delivered an invited lecture on "Organo Copper and Magnesium Reagents" in an outreach activity of the Department of Chemistry, Khalsa College, Mumbai University on 21st April 2021

Dr. D. Kashinath and Dr. Raghu Chitta (As conveners)organized a 3 days International Conference on "Conventional and Digital Methods of Chemical Education" during 29-31 July 2021

Prof. K. V. Gobi delivered an Invited Lecture on "Versatile Nanocomposite Materials for Biosensors and Fuel Cells" in the Faculty Development Programme on "Multifunctional Materials and their Applications (MFMA)" organized by the Department of Chemistry, Mepco Schlenk Engineering College, Virudhunagar, Tamilnadu from 20-24 Sept 2021.

Dr N. Venkatathri, delivered an Invited Lecture on Development of Selected Multi-Valent Metal ions functionalized Mesoporous Materials and their Applications in a National Webinar organized by Vel Tech High Tech Dr. Rangarajan Dr. Sakunthala Engineering College, Chennai, 02-07-2020.

Dr. Kashinath and Dr. B. Srinivas have delivered Webinar talks from the aegis of SCoPE.

Prof. K. Laxma Reddy, Invited Lecture on "Environmental Issues and Challenges"delivered at Government Degree, and PG College for Women, Karimnagar on 17-4-2021

Dr S. Nagarajan delivered a Guest address in 2nd National Conference on Future Perspective for Basic Sciences, NCFPBS-21 organized by the Department of Chemistry, VINAYAKA MISSION'S RESEARCH FOUNDATION, Chennai, Tamil Nadu on 08-4-2021

Participated a sExpert Member for 3 Engg Colleges. (a. GVP College of Engg. Vishakhapatnam, on 30-12-2020; b. GP College of Engg., Kurnool on 3-1-2021 and c. NSRITechnology, Sontyam, AP on 9-3-2021)

Delivered about Lectures each on, 'Professional Ethics', 'Computer Animations and Virtual Experiments' in all 15 different FDps conducted by various Departments in association with TLC

Delivered Lectures on 'Quantum Chemistry Fundamentals' and 'Elements of NMR Spectroscopy' on FDPs conducted recently by the Dept of CHemistry

Delivered Invited Lecture on, 'High Capacitors and Other Electrochemical Energy Storage Devices' on 22-2-2021 on the 2-Day National Conference on 'Sustainable Technology & Development; Environmental Impact' held at KL University, Guntur, held during 22nd -23rd Feb., 2021

Delivered Keynote on 'Women in Science a Lopsided Empowerment' on 8th March, 2021 conducted by Future Teachers, Hyderabad

Expert Member for the AICTE Evaluation and Verification Committee Meetings (8 in total, held during October, 2020 and january, 2021; Details not shared due to Confidentiality) organised by the AICTE West Region, Mumbai, AICTE South WEst Region, Banagaluru)

Phone in Interviews on matters of Science and ISRO's Space Programmes on TV Channels on National Science Day, 28th Feb., 2021

Served as Chairman, Institute Level Working Group on Teaching Learning and Resource

Working Group, constituted by the Director; Delivering a 1-Hour Report on the Strategies from the Committee.

Dr. D. Kashinath, Associate Professor, Department of Chemistry delivered an invited talk on "Synthesis of heterocyclic molecules using Bismuth, Iron, Copper, Zinc and based nanoparticles as recyclable heterogeneous catalysts in aqueous medium" in the Two Days Virtual International Conference on "Molecules to Materials" (MTM - 2020) organized by the Department of Chemistry, SVNIT Surat, during December 17-18, 2020

Dr. D. Kashinath, Associate Professor, Department of Chemistry delivered an invited talk on "Green and Sustainable Chemistry" in the Two Days Virtual International Seminar on "Sustainable Chemistry for Future" organized by the Department of Chemistry, TP College, Madhepura, BNMU-Darshan Parishad, Bihar, during September 9-10, 2020

Dr. Srinivas Basavoju, delivered an expert lecture on Multidimensional NMR Spectroscopy and its Software Applications'', UGC Sponsored National Conference on Multidimensional NMR Spectroscopy and its Applications, Organized by Acharya Nagarjuna Univeristy, College of Pharmaceutical Sciences, Guntur District, Andhra Pradesh, held on 17th & 18th March 2020

K. Laxma Reddy, "Symmetry & Group Theory and its Applications" at FDP on "Teaching Physical Chemistry with Hands on Experience" on 20-2-2020, organized by Department of Chemistry, NITW

K. Laxma Reddy, "Environmental Issues and Challenges" at FDP on "Teaching Oganicl Chemistry with Hands on Experience" on 24-2-2020, organized by Department of Chemistry, NITW

K. Laxma Reddy, "Electronic Spectroscopy" at FDP on "Instrumental Strategies of Physical Methods on Chemical Analysis with Hands on Experiments" on 2-3-2020, organized by Department of Chemistry, NITW

K. Laxma Reddy, "Symmetry & Group Theory and its Applications" at FDP on "Instrumental Strategies of Physical Methods on Chemical Analysis with Hands on Experiments" on 3-3-2020, organized by Department of Chemistry, NITW

K. Laxma Reddy, Expert Lecture on "Symmetry & Group Theory and its Applications" at Department of Chemistry, PG centre, Adikavi Nannaiah University, Tadepelligudem, AP on 1-2-2020

K. Laxma Reddy, Expert Lecture on "Electronic Spectra of Metal Complexes" at Department of Chemistry, GITAM University, Vishakapatnam on 10-2-2020

V. Rajeswar Rao, Chemistry of Medicinally Important Thiazolidinones Satavahana University, Karimnagar Delivered a Lecture on 26/02/2020

V. Rajeswar Rao, Organic Reaction Mechanism JNTU Hyderabad 5-12-2020.

V. Rajeswar Rao, Recent Developments of Multi-Component Reactions NIT Warangal 23 and 24 February 2020

S. Nagarajan, Soft materials by self-assembly, Faculty Development Programme on MATERIALS SCIENCE & NANOTECHNOLOGY" organized byDepartment of Chemistry, B.S. Abdur Rahman Crescent Institute of Science and Technology,Chennai-48, on 16/08/2020.

S. Nagarajan, Soft materials by self-assembly, One week Online Faculty Development Programme on "Recent Avenues in Chemical Sciences" organized by the Department of Chemistry, Saranathan College of Engineering, Trichy from 22.06.2020 to 28.06.2020.

S. Nagarajan, Assembled advanced organic materials, Webinar on Advanced organic materials organized by PG and Research Department of Chemistry, National College, Trichy, Tamil Nadu, India on 03/06/2020

S. Nagarajan, Molecular Self-Assembly: An Elegant Strategy to Construct Advanced Organic Materials, Webinar on Molecular Self-Assembly: An Elegant Strategy to Construct Advanced Organic Materials organized by Department of Chemistry, Easwari

Engineering College, Chennai, Tamil Nadu, India on 02/06/2020

Raghu Chitta, Invited Lecture on "Photophysics of Electron and Energy Transfer in Artificial Photosynthetic Systems" at One-Week Online Faculty Development Programme on "Spectroscopic and Analytical Techniques: Applications" on 29th May, 2020 at J.C.Bose University.

Raghu Chitta, Invited Lecture on 'Atomic Spectroscopy" at A National Webinar on Lecture Series on Spectral Techniques on 4th July, 2020 at Palamuru University

Vishnu Shanker, delivered a lecture in Six Day Faculty Development Workshop on "Teaching and Learning Nanoscience and Technology through Hands-on-experiences" (TLNST – 2020) is organized by Department of Chemistry, NIT Warangal In association with Teaching Learning Centre, NIT Warangal as a part of Diamond Jubilee Celebrations of NIT (REC), Warangal during 10th-15th February 2020.

Raghu Chitta, Invited Lecture on "Photophysics of Electron and Energy Transfer in Artificial Photosynthetic Systems" at One-Week Online Faculty Development Programme on "Spectroscopic and Analytical Techniques: Applications" on 29th May, 2020 at J.C.Bose University.

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M. Raghasudha, delivered a lecture through online on "Pollution during Diwali-Need for Green Diwali" on 31st October 2021 organised by JVV, Hanamkonda district, Environment sub committee

M. Raghasudha, delivered a lecture through online on "Women Empowerment" through SCoPE project of NITW to Government Women's degree college Kareemnagar on 16th November 2021

M. Raghasudha, delivered a lecture through online on "Women and their Emancipation" through SCoPE project of NITW to Padmavati Women's degree college Warangal on 8th December 2021

M. Raghasudha, delivered a lecture on "Violence against Adolescent Girls" organised by JVV Hanamkonda Samatha sub-committee to KGBV girl students at Dharmasagar on 9th December 2021

Dr. K. Hari Prasad delivered an expert lecture at the FDP on Applications of DFT (Density Functional Theory) In Teaching and Learning Chemistry, Physics And Material Science – With Software For Chemistry And Materials (SCM-AMS) during 19 th – 24 th March 2021, organized by the Department of Chemistry, NIT Warangal.

New lab established/ Equipment and Software procured

Dr. K. Hariprasad, NMR instrument, MAS III solid state pneumatic control AH1220- Budget: Rs. 18,79,264, 2020

Dr. K. Hariprasad, NMR instrument, 4mm solid state probe- Budget: Rs 36,13,179/- 2020

Awards/ Recognitions/ Achievements

Dr S, Nagarajan has been selected as a member in the Indian National Young Academy of Sciences (INYAS), INSA, Govt. of India for a period of 5 years beginning February 2021 to 2025

Prof. K. V. Gobi participated as External Academic Audit Committee member for the Academic courses of the Department of Applied Chemistry, Karunya Institute of Technology and Sciences, Coimbatore, Tamilnadu

Dr. D. Kashinath and **Dr. Ms. Raghasudha** are inducted as Members of the Core Committee of DST-VP-SCoPE Core Committee with Pof. K. Laxma Reddy as its Convener

Dr. N. Venkatathri, Board of Studies Member, Balaji Institute of Technology and Science (Autonomous), Warangal.

PhD Research guidance (Completed during the academic year)

M. Srikanth, supervisor: Prof. Prof. V. Rajeswar Rao, Title: Synthesis of new nitrogen and sulfur heterocyclic compounds using multi component approach and studies on their biological activity

J. Parameswara chary, supervisor: Prof. V. Rajeswar Rao, Title: MCR Approach for the synthesis of new heterocyclic compounds from 4 amino 5- hydrazynyl-4H-1,2,4, triazole-3-thiol.

V. Sunil Kumar, supervisor: Prof. K. V. Gobi Title: Development of Palladium and Non-noble Metal Based Nanocomposite Electrocatalysts Toward Methanol Oxidation in DMFC Applications

S. Manasa, supervisor: Prof. K. V. Gobi, and Dr R. Subasri, Title: NANOCLAY-BASED SELF-HEALING CORROSION PROTECTION COATINGS ON ALUMINUM ALLOYS AA2024-T4 AND A356.0

V. V. N. Phani Kumar, supervisor: Prof. K. V. Gobi, and Dr R. Prakash, Title: Investigation on natural and synthetic polymers as an aqueous binder for anodes of lithium-ion batteries (LIBs)

Kummari Shekher, Prof. K. V. Gobi, Title: Development of Hybrid Graphitic Carbon Nanocomposites as Sensing Platform for Pharmaceutical Drugs in-vitro in Biological Fluids

Babji Palakeeti, supervisor: Dr. C Jugun Prakash, and Prof. K.V. Gobi, Title: "DEVELOPMENT OF HPLC AND LC-MS BASED ANALYTICAL METHODS FOR THE ANALYSIS OF ANTICANCER, ANTIEPILEPTIC AND ANTIHYPERTENSION DRUGS"

Kota Sathish, supervisor: Dr. D. Kashinath, Title: Synthesis and functionalization of spirooxindoles using organic bases, organocatalytic and catalyst-free conditions

Vinay Pogaku, supervisor: Dr. B. Srinivas, Title: SYNTHESIS AND BIOLOGICAL EVALUATION OF NOVEL NOVEL TRIAZOLE BASED HETEROCYCLIC AND SPIRO HETEROCYCLIC COMPOUNDS

Suresh Siliveri, supervisor: Dr. N. Venkatathri, Title: Development of novel strategies for rapid synthesis of silicoaluminophosphate molecular sieves in non-aqueous media and catalytic application studies on metal supported SAPO-35.

Details of students joined in higher educational institutes

Passed out students' information:	
Number of students completed the program	39
Number of students pursuing Higher studies	04
Number of students pursuing Jobs	10

Ms. Ridhi M.Sc. Chemistry (Organic Chemistry specialization) student of current passed out batch (2019-2021) has been selected for a PhD programme abroad.

NAME	JOB / PhD / Project	NAME OF COMPANY / INSTITUTE	ADDRESS OF COMPANY	PACKAGE (Annual)
Amit Barsiwal	Project Associate I (Medicinal Chemistry)	CSIR CDRI	Lucknow Uttar Pradesh	
Ajay Kumar Panigrahi	Assitant Lecturer In IIT JEE Chemistry	Aakash Educational Service Limited	Delhi	6.75 LPA
A Sheik Nilofer	Manufacturing Engineer	Akzonobel India Private Limited	Bangalore Karnataka	8.97 LPA
Ria Mishra	Faculty Chemistry Teacher	Turito	Hyderabad Telangana	4.5 LPA
Sayan Goon	Faculty Chemistry Teacher	Turito	Hyderabad Telangana	4.5 LPA
Shubham Patil	Program Associate	Avanti Fellows	Karnataka	4 LPA
Desai Fenilkumar	Assitant Lecturer in Medicinal Chemistry	Aakash Educational Service Limited	Delhi	6.75 LPA
Shivangi Srivastav	Program Fellow	Avanti Fellows	Karnataka	
Neha Kumari		Planet Spark		6.5 LPA

Department Outreach Activities

Science Communication, Popularization and Extension (SCOPE) project preliminary meeting held on 8-4-2021 at IICT, Hyderabad, Jointly organized by Vigyan Prasar (DST), NIT Warangal and IICT , Hyderabad: Chief Guest: Prof N. V. Ramana Rao, Director

Coordinated by: Prof. A. Ramachandraiah, Nodal Officer, RAA & Prof. K. Laxma Reddy Director, Vigyan Prasar, Director, IICT, Vice-Chancellor, HCU graced the occasion



సైన్స్ ఆవిష్కరణలను ప్రజానికంలోకి తీసుకెళ్లాలి



మనతెలంగాణ/తార్నాక : సైన్స్‌ను ప్రజల్లోకి తీసుకెళ్లెందుకు కేంద్ర ప్రభుత్వ శాఖ,సాంకేతిక శాఖ ఆధ్వర్యంలో విజ్ఞాన ప్రసార్ అనే కార్యక్రమాన్ని చేపడుతుంది. తెలుగులో స్కోప్(సైన్స్ కమ్యూనికేషన్, పాపులరైజేషన్ అండ్ ఎక్సటెన్షన్) పేరుతో వరంగల్‌లోని ఎన్ఐటి,ఐఐటి హైద్రాబాద్, తెలంగాణ అకాడమి ఆఫ్ సైన్స్‌స్ సంయుక్తంగా ఈ కార్యక్రమాన్ని నిర్వహిస్తున్నయి. ఇందులో భాగంగా గురువారం తార్నాక ఐఐసిటిలో ప్రొ.రామచంద్రయ్య, ప్రొ.లక్ష్మారెడ్డి, ప్రొ.బిఎన్‌రెడ్డి సమన్వయంలో ప్రాధమిక సమావేశాన్ని నిర్వహించారు.ఈ కార్యక్రమానికి ముఖ్యఅతిదులుగా వరంగల్ నిట్ డైరెక్టర్ ప్రొ.రమణరావు,విజ్ఞాన ప్రసార్ డైరెక్టర్ డా.నకుల్ పరాశర్,సెంట్రల్ యునివర్శిటి వీసి ప్రొ.అప్పారావు,సిసిఎంబి మాజీ డైరెక్టర్ సిహెచ్. మోహన్‌రావు,ప్రముఖ శాస్త్రవెత్త డా.టివి.వెంకటేశ్వరన్ తదితరులు హాజరయ్యారు. ఈ సందర్భంగా వారు మాట్లాడుతు ప్రజల్లోకి సైన్స్‌ను తీసుకెళ్లాలని,అందుకోసం పని చేస్తున్న సంస్థలు,వ్యక్తులు ఓక నెట్‌పర్క్‌గా ఎర్పడి స్థానిక భాషల్లో సైన్స్ అవిష్కరణలను ప్రజానీకంలోకి తీసుకెళ్లడానికి కృషి చేయాలన్నారు.సైన్స్ ఫలాలను ప్రజానీకానికి చేరవేయడంలో స్థానిక భాష,కార్యకర్తలు, నెలవారిగా ప్రచురించే మ్యాగ్‌జైన్‌లు,సైన్స్ ప్రచురణలు, డాక్యుమెంటరీలతో పాటు ప్రజాకళలు, మీడియా ప్రదాన పాత్ర పోషిస్తాయని తెలిపారు.

మన హైదరాబాద్ Fri, 09 April 2021
https://epaper.manatelangana.news/c/59662876

Members of the Youth Red Cross Society (YRCS) of the National Institute of Technology (NIT) – Warangal, celebrated the Deepavali festival at Oasis Orphanage in Hanamkonda on Thursday. The NITW Dean Prof J V Ramana Murthy and Dr B Srinivas took part in the celebrations. They called upon the inmates of the home to take advantage of the opportunities to reach higher goals in their life and contribute to the progress of the country.

The NITW students have motivated them with their pep-talk. Later, fruits and crackers were distributed to the children and celebrated the festival with joy and fervour. Dr K Hariprasad, faculty in-charge of NITW Youth Red Cross Society (YRC), Dr Sampath Kumar, Pujitha YRC Club General Secretary and others participated in the celebrations.

Members of Youth Red Cross Club 2021 - 2022 National Instituteof Technology Warangal and Youth for Seva observed the National ConstitutionDay at NITW Hanamkonda. During the event Adv. P.Niroop Reddy who is an advocate of the SupremeCourt delivered a talk on "Constitution Awareness" has created a UniquePerspective on The Constitution in the minds of students subsequent with Arunmayee Jandhyam, Who is a social Activistreminded the students about the service to society and Sowmithri Lakshmana Charihave shared Valuable Words with the gathering. Thus the event was made a greatsuccess by the initiation and execution by the faculty advisors Dr. P. SampathKumar, Dr. Hariprasad, General Secretary Mohan with the support from Dean StudentWelfare Dr. J.V. Ramanamurty and the Director Prof. N.V. Ramana Rao.







https://telanganatoday.com/nitw-students-celebrate-diwali-at-orphanage

Department Association/Students Clubs Activities

Chemistry Association was inaugurated on 28th November 2020 with Dr. Shilesh Upreti as the Chief Guest and Prof. NV Ramana Rao, Director, NIT Warangal and Prof. JV Ramanamurthy, Dean, SW as the Guests of Honor. Office Bearers of chemistry department have been elected with Dr. Ms. M. Ragasudha as the Faculty Advisor. Dr. Shilesh Upreti, CEO, C4V, CHAIRMAN iMperium3 INCORPORATION, USA (which provides energy storage systems), an entrepreneur, mentor and inventor of multiple breakthrough technologies has delivered a lecture on "Chemistry and

Enterpreneurship, sunchronizing best of yourself, one step at a time" during the inaugural of the Chemistry Association.

Chemistry Association was inaugurated on 18th September 2021 with Prof. Venkatram R Mereddy as the Chief Guest and Prof. NV Ramana Rao, Director, NIT Warangal and Prof. JV Ramanamurthy, Dean, SW as the Guests of Honor. Office Bearers of chemistry department have been elected with Dr. Ms. M. Ragasudha as the Faculty Advisor. Prof. Venkatram Mereddy, Professor, Department of Pharmacy Practice and Pharmaceutical Sciences, University of Minnesota, USA delivered a lecture on "Musings of an organic chemist's foray into biology in search of simple therapeutics for complex diseases" during the inaugural of the Chemistry Association.

Career guidance by Alumni of the department to pursue Ph.D. in abroad on 19th September 2021

Invited talk by Prof. A. Ramachandraiah, Professor of Chemistry (HAG) Retired entitled "MICHAEL FARADAY -A Scientist to be inspired by..." on 24th September 2021.

A webinar on Study Abroad-unlocking the opportunities for the Masters students by Mrs. Sarith Sinha, General Manager, Educational Counsellor at IMFS, Warangal on 12th October 2021

A power packed motivational session by Dr. Vangeepuram Sreenath Chary, Triple Guineess World Record Holder on "Success strategies for Successful Tomorrow" on 23-10-2021

Any other Department Specific

The Department of Chemistry organized an a Three-Day International Conference on "Conventional and Digital Methods in Chemical Education (CDMCE-2021)" during 29th – 31st July, 2021, on the eve of the retirement and in the honour of a senior chemistry faculty, Prof. A. Ramachandraiah, who is retiring after 36 years of service on 31.07.2021.

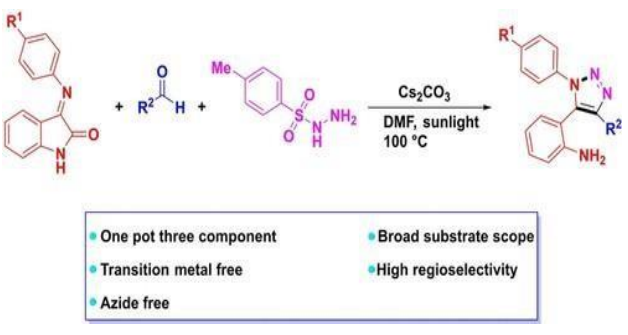
Research Highlights



Dr. B. Srinivas, Assistant Professor, Department of Chemistry and his research student has published their work in a reputed journal ''*Advanced Synthesis & Catalysis*'' (Wiley Online Library) with novel methodology for the synthesis of triazoles without hazardous transition metals, azides and oxidant-free reagents.

A Photoinduced Multicomponent Regioselective Synthesis of 1,4,5-Trisubstituted-1,2,3-Triazoles: Transition Metal-, Azide- and Oxidant-Free Protocol

Bhargava Sai Allaka, Srinivas Basavoju*, Gamidi Rama Krishna, *Advanced Synthesis & Catalysis*, Volume 363, Issue 14. https://doi.org/10.1002/adsc.202100321, [Impact Factor: 5.837]

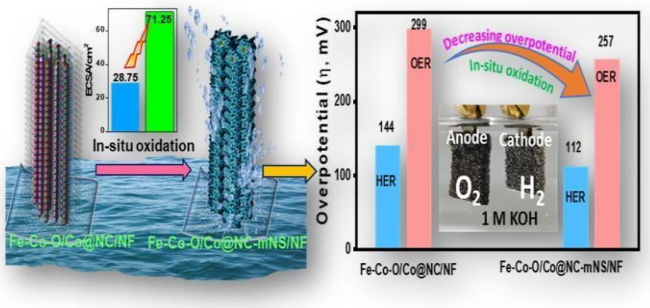




Dr. G. Rajeshkhanna, Assistant Professor, Department of Chemistry, NIT Warangal in collaboration with Prof. Joong Hee Lee, Department of Nano Convergence Engineering, Jeonbuk National University, Republic of Korea has published his research work in a reputed journal 'Small'' (Wiley Online Library) on developing bifunctional electrode material for hydrogen (H_2) gas generation through electrolysis.

Alkaline Water Splitting Enhancement by MOF-Derived Fe–Co–Oxide/Co@ NC-mNS Heterostructure: Boosting OER and HER through Defect Engineering and In Situ Oxidation

Thangjam Ibomcha Singh, Gaddam Rajeshkhanna, Uday Narayan Pan, Tolendra Kshetri, Han Lin, Nam Hoon Kim,* Joong Hee Lee*, *Small*, Volume 17, Issue 29 . https://doi.org/10.1002/smll.202101312, [Impact Factor: 13.281]



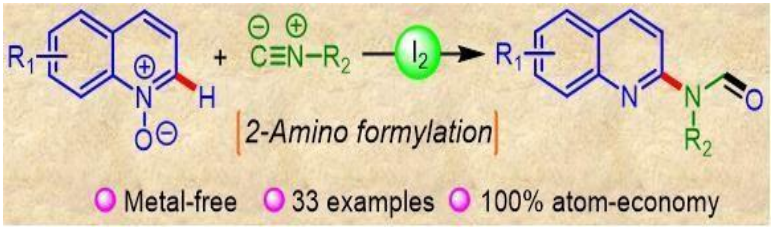


Dr. K. Hari Prasad, Assistant Professor, Department of Chemistry and his research scholars has developed an efficient method for C-2 activation of quinolines for the synthesis of biologically active molecules. This work is accepted in a reputed journal ''*Advanced Synthesis & Catalysis*'' (Wiley Online Library).

Iodine Catalyzed C2-H Formamidation of Quinoline N-oxides using Isocyanides: A Metal-free Approach

Naveenkumar Anugu, Sanjeeva Thunga, Sivaparwathi Golla, Hari Prasad Kokatla*, *Advanced Synthesis & Catalysis*, 2021, accepted, [Impact Factor: 5.837]

https://doi.org/10.1002/adsc.202100883



A molecular iodine catalyzed regioselective insertion of isocyanide into C2-H of quinoline *N*-oxides has been developed. The reaction proceeds through the nucleophilic addition of isocyanide on quinoline *N*-oxides followed by rearrangement in presence of iodine. This metal-free reaction affords rapid access to quinoline 2-formamides with exceptional functional group tolerance, broad substrate scope and 100% atom-economy.

S. Nagarajan and co-workers book chapter scheme indexed in the preface of the book entitled "Metal, Metal Oxides and Metal Sulphides for Biomedical Applications", Environmental Chemistry for a Sustainable World 58, Springer, Cham



Application of CuO nanoparticles in the fields of medicine and biology (Chap. 9)

Summary

S.No.	Activity	Number
1	**Publications (Peer Reviewed Journals/ conferences)(SCOPUS/SCI)**	112
	International Journals	110
	National Journals	0
	International Conferences	0
	National Conferences	0
2	**Funded Research Projects/SPARC projects (2019-20)**	16
	Completed Projects	0
	DBT, SERB	12
	Ongoing Projects	15
	IMPRINT PROJECTS	0
	FIST PROJECT (1.67 crores	1
	BRICS project	0
	DST, SERB, BRNS, DRDO	16
3	**SPARC Project Workshops**	**1**
4	**Consultancy Works (2019-20)**	**0**
5	**Patents**	**2**
	Awarded	0
	Filed	2
6	**Books and Book Chapters**	**5**
	Books	0

	Book Chapters	5
7	**Conferences/ Workshops/GIAN courses/FDPs Conducted**	***10***
8	**Guest talks/ Webinars delivered**	***63***
9	**New Labs Established (Equipment/Software Procured)**	***Rs. 54.9 lakhs***
10	**Awards/Recognitions/Achievements**	***3***
11	**Research Guidance (Completed in 2019-20)**	***10***
12	**International Visits of the Faculty Members/ students**	***0***
13	**Students Achievements**	
	Placements	10
	B.Tech	-
	MTech	-
	Higher Education (M.Tech, PhD at IITs & Abroad)	4
	Lab Development Activities	-
	Conference visits	-
14	**Association Activities**	***6***
15	**Distinguished Guests visiting the Department/Delivering Expert Lecture/Keynote Address**	**-**
16	**Outreach Programmes**	***3***

SCHOOL OF MANAGEMENT

Recognizing the need of techno management, the institute has designed a comprehensive MBA program exclusively for engineers. Thus, came to light the "School of Management (SOM)" at NIT Warangal in 2000. The MBA program offered by the School of Management is exclusively for engineering graduates. A two-year course runs into 8 quarters. The program has extensive electives in the specialized areas of Marketing Management, Human Resource Management, Financial Management, Operations Management, Information Technology and allied areas of management. Students are exposed to industrial training for a period of eight weeks, after completion of first year and the project work for a period of twelve weeks during their final quarter. The School of Management provides a well-balanced combination of academic and practical business oriented content. The updated curriculum with its wide range of video materials, databases like prowess, case studies, research projects and other tools aim at enhancing the understanding of the business reality and imbibing problem-solving skills. The School has been accredited with Tata Consultancy Services and is having significant placements. The School has fully air-conditioned classrooms with Wi-Fi facility.



Faculty details:



Prof. M. Ravindar Reddy
Professor
Economics, Agriculture Economics, Rural Marketing



Dr. K. Padma
Associate Professor
Economics, Financial Management



Dr. P. Ramlal
Associate Professor
Human Resource Management,Soft Skills, Corporate Training



Dr. V. Rama Devi (HoD)
Associate Professor
Organizational Behavior & Human Resource Management



Dr. G.Sunitha
Assistant Professor
Behavioral Finance, Financial Markets



Dr. S. L Tulasi Devi
Assistant Professor
Corporate Finance, FinancialEconometrics



Dr. Francis Sudhakar
Assistant Professor
Consumer Behavior and Industrial Marketing



Dr. K Lakshminarayana
Assistant Professor
Information Systems, Socio Technical systems and E-Governance



Dr. P Ramachandra Gopal
Assistant Professor
Supply chain Management, Sustainability, Operations Management.



Dr. T. Rahul
Assistant Professor
Marketing Research, Analytics

Publications

(in Peer Reviewed Journals)

Kompella, L. (2021). The transition of a socio-technical system to a smart grid: illustrated with the Indian electricity network. International Journal of Energy Sector Management, Vol. ahead-of-print No.ahead-of-print.

Kompella, L (2021) Influence of coalitions and embeddedness on public innovation: illustrated with the Indian agriculture, Innovation: The European Journal of Social Science Research, DOI: 10.1080/13511610.2021.1964353

Sharon Rose J, **Gopal PRC,** Ramkumar M. Arputham**,** (2021**) , "** Operational efficiency of tow trucks: a case based evidence from an Indian automobile manufacturer", Journal of Facilities Management, 1472-5967, DOI 10.1108/JFM-08-2020-0050

Reddy, J.M; A, Rao, A; Krishnanand, L; **Gopal,PRC** (2021),**"** Systemdynamics modelling of fixed and dynamic kanban controlled production systems: A supply chain perspective. Journal of Modelling in Management.

Singh, D., Lanka, K., & **Gopal, PRC.** (2021). Predicting Sustainable Supply Chain Performance Based on GRI Metrics and Multilayer Perceptron Neural Networks. In *Emerging Frontiers in Operations and Supply Chain Management* (pp. 159-180). Springer, Singapore.

Kumari, T., & **Rama Devi, V.** (2021). Impact of Work-Family Conflict on Career Development of Knowledge Workers in Indian IT Sector, *International Journal of Human Capital and*

Publications

(in Peer Reviewed Conferences)

Varsha CH and **PRC Gopal**, Prediction of customer satisfaction through online reviews for Ecofriendly products POMS International, Global Conference on Innovations in Management and Business (GCIMB) during 27th and 28th July, 2021, NIT Warangal.

Rusha Sri Y, and **PRC Gopal** Customer Satisfaction and Requirement Analysis towards Evehicles using Kano Model: A Pilot Study, Global Conference on Innovations in Management and Business (GCIMB) during 27th and 28th July, 2021, NIT Warangal.

Shashank Hariharnath Tripathi, Krishnanand Lanka, **PRC Gopal** Evaluating Climate Change Risks in Supply Chain Within the Indian E-Commerce Industry Using AHP and DEMATEL Techniques, Global Conference on Innovations in Management and Business (GCIMB) during 27th and 28th July, 2021, NIT Warangal.

Kaleel J, **PRC Gopal**, Bimal Kumar Mawandiya Study on Driving Factors for Industry 4.0 of Retail Sector Supply Chain, Global Conference on Innovations in Management and Business (GCIMB) during 27th and 28th July, 2021, NIT Warangal.

Information Technology Professionals, 12(3). (Scopus indexed).

Dasari Shanti Ratnam, V. **Rama Devi,** Resource based view of HR Analytics using Content analysis Global Conference on Innovations in Management and Business (GCIMB) during 27th and 28th July, 2021, NIT Warangal.

Akhila Potla, **V. Rama Devi**, Adoption and Impact of People Analytics in the IT sector Global Conference on Innovations in Management and Business (GCIMB) during 27th and 28th July, 2021, NIT Warangal.

K. Aruna, **K. Padma,** New strategies implemented by the Warangal durrie weavers during pandemic period-a case study, Global Conference on Innovations in Management and Business (GCIMB) during 27th and 28th July, 2021, NIT Warangal.

Naini Shalini Reddy, **M. Ravinder Reddy,** Contemporary and Significant Factors Affecting Green Purchase Intention and Behaviour Global Conference on Innovations in Management and Business (GCIMB) during 27th and 28th July, 2021, NIT Warangal.

Research guidance

One scholar awarded Ph.D Degree during 2019-20

Mr Narasima Murty Indrakanti has been awarded Ph.D degree under the supervision of Prof. M.Ravinder Reddy for thesis entitled "Emperica; analysis of non-performing assets in Indian banking sector-An Analytical study" on 11-12-2020

Mr.Seshadri Savalgi (Finance Director General Mills)-Progressive career in a VUCA world
Mr.Prashanth Handoo (Phoenix Leadership Learning solutions)-Leadership is a lot like love.
Mr.Ankush Guptha (Recruiter at KPMG India)-Expectations of corporates from MBA students.
Mr.Sumith Bhadani (Manager –Alstom) – Execution Excellence
Ms.Shyla Krishnamurthy (Co-founder &CEO Tvamway Global Services) –Leading With growth mind set.

Karthik, V. **Rama Devi**, High Performance Work Systems – A Bibliometric Analysis Padamata Global Conference on Innovations in Management and Business (GCIMB) during 27th and 28th July, 2021, Warangal.

Research Fundeded Projects

Prof. M. Ravinder Reddy, a project entitled "A study on social security for women in unorganised sector" in India from ICSSR (Project Number: 127/ICSSR-SRC/2020).

Dr.V.Rama Devi and **Dr.T.Rahul** a project titled "Transition to Remote Learning Due to Covid19 – The Experiences of Faculty of Higher Education Institutions in India from ICSSR (Project Number: ICSSR/285/11/2021-22)

Workshops Organized

Conducted a online workshop for the School of Mangement students on "Business process automation with Quixy's No code Platform" on 6th November, 2020.

Student Achievements and Activities

Shubhabrato Sarkar, second year MBA student awarded second prize in AIMA-ICRC case study competition where 200+ top B-Schools participated (Includes IIMA, B,C & XLRI).

Key Corporate and Leadership Webinar Series.

Mr.P.V Vijaya Raghavan (Vice President and Country Head-Japan, South Korea, China, Taiwan,South Korea, L&T Technology Services Ltd)-Japan Culture and Opportunities
Mr.Vikas Dua (Chief HR Mentor, Attayan)-Making Virtual Recruitment worl for stduents
Ms. Pauline Laravoire (Co-founder of Y-East)-Significance of Social Entrepreneurship.
Mr.Adiyan Prabhakaran (Supply Director, Redbus) –Jolt of COVID-19 on bus transport and strategies to cope up.
Mr.Parag Ray (BDE and Pre sales Consultant, TCS) –Personal Branding
Mr.Neetesh Dixit (Sr.Operations Associate, Google) –Career Guidance and Experience sharing

Mr.Selvaraj V (Consultant)-Digital Transformation in product development.
Vidhya Veeraraghavan (Vice President-Analytics, Standard Charted Bank) –Data Analytics Introduction and Applications.
Mr.Jaskaran Kohli –(Founder-BeyondCV Consulting) –Resume Building

News Letter Launch

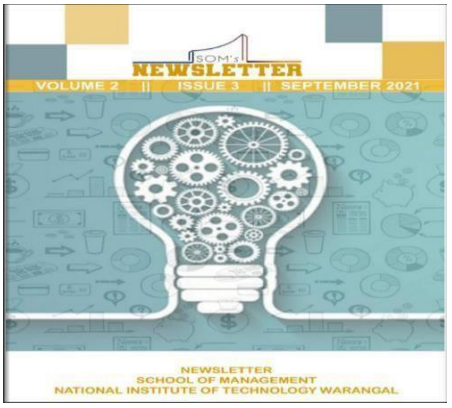
School of Management started quarterly newsletter. It focuses on activities, which happened in every quarter at school.











Social Media Presence

A department blog developed where articles are presented by students
SOM page on facebook, Linkedin and Instagram are regularly maintained.
Facebook has 1960 followers
Linkedin has 2050 followers (We stand first among all departments of management at NITs)
Instagram has 200 followers
Research scholars maintain a blog on which recent research trends are posted in the areas of management.

Abhiyan Club

Abhiyan Club is a departmental club of School of Management, NITW established in 2003. It is a student centric club aiming

To upscale the leadership, interpersonal and overall soft skills. All through the academic year, Abhiyan actively conducted events. The activities include Mystery Writer, JAM, Marketing Technique, Building Towers, Logo Identification, CURA Promo Launch, Budget 2020, Resume Building sessions, Management Word games etc.

During the lockdown, Abhiyan switched to online platforms to conduct their events online. The online activities included Quizzes Case study discussions on Marketing, Operations, HR, IT, Finance Areas, Abhiyan News Board, Virtual Discussions, Video Presentations.

DEPARTMENT OF HUMANITIES AND SOCIALSCIENCES

The Department of Humanities and SocialSciences at NIT Warangal was started in2009. The Department offers courses across the board ranging from basic to advanced courses in English Communication and Two Foreign languages catering to diverse needsof students across UG /PG and PhD levels.

Besides, the Department also offers research programs in the broad areas of ELT, British literature and American literature through regular, part time and self- finance modes.

The Department has highly qualified and committed faculty members who are wellrecognized and are members of many Boards across colleges affiliated to state level universities.

This academic year as per NEP guidelines 2020 the Department of Humanities and Social Sciences has revised the syllabi of existing courses and has designed 16 new courses at UG/PG/PhD levels. As part of curriculum revision the department has also designed a Minor program to be offered at UG Level titled 'Professional Communication Skills for STEM

The Department of H&SS constantlythrives to impart quality education and life skills that enable students tobecome successful on the personal, academic, and professional front; to foster critical thinking through a diverse range of courses aimed at making students industry ready; to encourage and facilitate research in advanced areas of Humanities.



Faculty Details:

S. No.	Name of the Faculty Member and Designation	Highest Qualification	Research Interests	Photograph
1.	Dr. K. Madhavi	Ph. D	Academic writing skills; Designing task-based ESP courses; Multiple intelligences -Visual Literacies; teaching reading and writing using technology; Learner strategies and styles.	
2.	Dr M Raja Vishwanathan/ Assistant professor-Grade1	PhD(ELT)	Bilingualism and bilingual education, Academic writing, critical pedagogy, ideology in language teaching, American literature, British literature, Indian writing in English	
3	Dr. B. Spoorthi Assistant professor- Grade II	Ph. D	Leveraging Technology for Language Learning, Content and Language Integrated Learnin,g Teacher Education and Reflection, Task Based Language Teaching, Virtual Reality in Education, Virtual Labs for Language Education	

4	Dr.P.Madhumathi Assistant professor- Grade II	Ph.D	Teacher Education, ELT, EAP, Virtual Education, Cultural Studies	
5	Dr. R. Vennela, Assistant Professor- Grade II	Ph. D	Bilingual education, Lexicography, Sociolinguistics	

Journal Publications

Nirmala Vinodh Ch and Madhavi Kesari 'Teaching English to Professional Students with the Help of MI Approach' in the Research Journal of English (RJOE) International Peer-Reviewed English Journal ISSN: 2456-2696, Vol-6, Issue-1, March 2021, pp 338-349, Indexed in: International Citation Indexing (ICI), International Scientific Indexing (ISI), Directory of Research Journal Indexing (DRJI) Google Scholar &Cosmos.

K. Madhavi., "Analyzing Common Language Errors in Classroom Communication of Engineering Teachers - An Empirical Study' in the "International Journal of Management (IJM), Volume 11, Issue 6, June 2020, pp. 2199-2207; ISSN Print: 0976-6502. and ISSN Online: 0976-6510; Journal Impact Factor (2019) : 11 Calculatedby GISI (www.jifactor.com)" Article Id - IJM_11_06_206 Date of Publication - 30 June 2020. Article Link - https://iaeme.com/Home/article_id/IJM_11_06_206. 1.(Scopus)

K. Madhavi and; Kavya Rayala.,' Web Based Resources and Tools in Online Learning: A Participatory and Collaborative Method to Enhance Reading and Writing Skills in the Students Studying Intermediate Course of Andhara Pradesh and Telangana States' in "International Journal of Management (IJM)", Volume 11, Issue 4, 2020. https://iaeme.com/Home/article_id/IJM_11_04_073 (Scopus)

R. Vennela and; K. M. C. Kandharaja (2021) Agentive responses: a study of students' language attitudes towards the use of English in India, Current Issues in Language Planning, 22:1-2,243-263, DOI: 10.1080/14664208.2020.1744319

Conference publications

Dr. R. Vennela, presented a paper at HoLLT.net Online Colloquium September 17th, 2021 "Women in the History of Language Learning and Teaching", organised by Universität Bremen and University of Reading, on the topic "Women Teachers and Teachers for Women: a Review of Zenana and Mission Instruction in 19th Century India".

Dr. Spoorthi B, TIE 4.0 – Leveraging Technology for Industry in Education 4.0, Three Day Virtual International Conference on 'INNOVATIONS FOR NEW NORMAL' from 23-08-2020 to 25-08-2020, Parkal, Warangal

Funded Research Projects

Technology-Based Strategy Intervention to Enhance Communication Skills of Arts and Science College Students from Rural Telangana: A rural development project was granted to by Dr.P.Madhumathi, Assistant Professor, Dept., of Humanities and Social Sciences, funded by Impactful Policy Research in Social Science (IMPRESS 2019-2021), ICSSR for developing the communication skills of the rural students studying in Arts and Science colleges of Telangana.

Dr.Spoorthi B is building an Artificially Intelligent Virtual Laboratory to develop Employability Skills of engineering students '**AIVLES**' to bridge the Gap between College and the Corporate – of Rs. 2,00,000, funded by ICSSR

Dr. R. Vennela and Mr. K.M.C. Kandharaja. Completed the project titiled "Bilingual Teacher Talk: A Study of Telugu-medium Schools". ELTRMS (2019-20), Funded by the British Council.

Dr. R. Vennela, Principle Investigator, Project Title: "Developing a Pilot English-Telugu bilingual pedagogic picture dictionary resource and teacher resource book for low resource ESL contexts", Funded Rs.5.16 lakhs (Hornby Trust, United Kingdom: 2021 – 22).

Dr. Amol Padwad (Ambedkar National University, Delhi), Dr. Krishna K. Dixit (AmbedkarNational University, Delhi), Dr. Atanu Bhattacharya (Central University of Gujarat), Dr. R. Vennela, Assistant Professor, Department of H&SS, NITW, Project title: "Textbooks in Historical times: Reviewing the Status of Historical Explorations", Funded Rs.5.14 lakhs(Hornby Trust, United Kingdom: 2021 – 22).

Conferences, workshops, FDPs, Webinars organized

Dr. B. Spoorthi oraganised an ATAL (AICTE Training and Learning) Academy Programmes (Five-day Faculty Development Program) titled **Technology, Industry and Education 4.0 (TIE 4.0) from 3rd to 11th November 2020.**



Guest Talks/webinars delivered

Dr. K. Madhavi delivered expert lecture on 'Stress Management and Emotional Intelligence' in a one - week short term course on 29th October, 2021 "Soft Skills and Professional Ethics" organized by UGC-Human Resource Development Centre, JNTUH, from 25-10-2021 to 30-10-2021.

Dr. K. Madhavi delivered Expert talk on 'Extensive Reading Skills: Challenges in Inculcating Reading Habits Among the Students' in the Eight-day online Faculty Development Programme (FDP) on Reading: Back to the Basics conducted by English Language Teachers' Association of India (ELTAI), from 23rd to 31st August 2021.

Dr. K. Madhavi has been invited as a keynote speaker during **ELTA KIDS TECHNOTHON 1st Anniversary Celebrations Dissemination Event** organised as part of the project 'Igniting Young Minds- *Covid 19: A Scope for Remote Learning and Innovative Teaching'* organised by ELTA, Warangal Urban on 15th August 2021.







Dr. K. Madhavi is been invited to deliver key note during the International Conference on English Language, Ethics and Learnability' organised by BVRIT, Narsarao Pet, during 30th and 31st July, 2021,

Dr. K. Madhavi delivered expert talk on **"Areas of use -** VR **in Education: training to acquire certain skills",** on 27 th July, 2021 in a AICTE sponsored Short Term Training Program **(STTP)** under AQIS on **"Augmented Reality and Virtual Reality** organized by CSE Department, Maharaj Vijayarama Gajapathiraj College of Engineering, **from 26th July 2021 to 31st July 2021** in online mode.

Dr. K. Madhavi delivered Expert talk on 'Language and Vocabulary in Writing a Research Paper' in a One Week National Level Faculty Development Programme ' on Research Skills and the Saptha Yoga of Learning' on 20th July 2021, organized by the Dept of HSS, Sreyas Institute of Engineering & Technology, Bandlaguda, Nagole, from 19-24 July 2021.

Dr. K. Madhavi delivered Expert talk on 'Technical Vocabulary and Language in Writing a Research Paper' on 7th July 2021, during the Online Short -Term Training Programme on 'Writing Quality Research Paper and Proposal' conducted by Applied Mathematics and Humanities Department, Sardar Vallabhbhai National Institute of Technology Surat organized from 6-10 July 2021.

Dr. K. Madhavi delivered Expert talk on 'National Educational Policy Challenges and Implication in Humanities and Social Sciences' at S.B.Jain Institute of TechnologyManagement & Research, (An Autonomous Institute, affiliated to R.T.M.Nagpur University)Nagpur on 17th June 2021

Dr. K. Madhavi delivered expert lecture on 'Stress Management and Emotional Intelligence' on 06-11-2020, in a one - week short term course on "Soft Skills and Professional Ethics" organized by UGC-Human Resource Development Centre, JNTUH, from 03-11-2020 to 07-11-2020.

Dr. K. Madhavi conducted a workshop on 'Developing Academic Writing Skills in a Classroom Context, in a three-day National Webinar organised by the Dept. of English and co-hosted by American Corner, St Francis College for Women, Hyderabad on 5th November, 2020.

Dr. K. Madhavi delivered expert lecture online on 'Global Research of OECD Learning' in a Five Day ATAL FDP on Productivity Enhancement titled 'Technology, Industry and Education 4.0 (TIE 4.0) an AICTE funded program, organised by the Department of Humanities and Social Sciences, National Institute of Technology, Warangal from 03 -07 November 2020.

Dr. K. Madhavi delivered expert lecture on 'Professional Ethics' on 22 Sept, 2020, in the AICTE Sponsored One-Week Online Faculty Development Programme on Life Skills - Emotional Intelligence, organized by Department of Science & Humanities St. Martin's Engineering College (UGC Autonomous) NBA & NAAC A+ Accredited, Dhulapally, from 21-25 September 2020

Dr. Raja Vishwanathan delivered online talk on "Relevance of soft skills in teaching and learning English as a Second language" as part of ELTIF Online lecture series on Language, Literature and Culture Studies on 25 July 2021

Dr. Raja Vishwanathan delivered an online lecture on "Social Emotional Learning" on 7 August 2021 to students of Nalla Narasimha Reddy Group of Institutions, Narapally, Hyderabad

Dr. Raja Vishwanathan delivered an online session at VNIT on 27 September 2021 on "Guidelines for writing effective abstract and summary for research papers" as part of STTP on Scientific Communication and Data Analysis Tools.

Dr. Raja Vishwanathan delivered an online lecture on "Embracing social emotional learning for a meaningful life" to IEEE students of NIT Warangal on 23 October 2021

Dr. Spoorthi B delivered a talk on AR/VR in Education - Technological Advancements and the Paradigm Shift on 21-09-2020 in ATAL FDP on AR/VR, at RYMEC, Bhallari, Karnataka

Dr. Spoorthi B delivered a talk on Technological Advancements and Paradigm Shifts in Education on 21-10-2020 in AICTE

Sponsored STTP at Sri Krishna Institutions, Coimbatore

Dr. Spoorthi B delivered a talk on AR/VR and beyond: Developments in Education 4.0 – AICTE Sponsored STTP on AR/VR (phase 2) on 02-11-2020 in AICTE Sponsored STTP at Sri Krishna Institutions, Coimbatore

Dr. Spoorthi B delivered a talk on Enhancing Communication skills on 21-11-2020 at Sri Sairam Engineering College, Chennai

Dr. Spoorthi B delivered a talk on Writing Grant Proposal on 02-12-2020 in AICTE Sponsored ATAL FDP on Research Methodology at Indian Institute ofInformation Technology, Nagpur

Dr. Spoorthi B delivered a talk on Successful Writing (Hands-on Session) 0n 04-12-2020 in AICTE Sponsored ATAL FDP on Research Methodology at Indian Institute ofInformation Technology, Nagpur

Dr. Spoorthi B delivered a talk on English Technical Communication on 21-11-2020 in Induction Program for first year students organized by Matrusri Engineering College, Hyderabad

Dr. Spoorthi B delivered a talk on 'ROW - Ethics and Values' on 22-11-202 at VIT School of Agricultural Innovations and Advanced Learning (VAIAL), VIT, Vellore

Dr. Spoorthi B delivered a talk on Paradigm shifts in Education: Developments and the way forward on 02-03-2021 at College of Engineering, Trivendrum, Kerala

Dr. Spoorthi B delivered a talk on Introduction to Education 4.0: Pedagogy for the GenZ and GenAlpha on 02-03-2021 at College of Engineering, Trivendrum, Kerala

Dr. Spoorthi B delivered a talk on Tools and Applications for the Education 4.0 Classrooms on 03-03-2021 at College of Engineering, Trivendrum, Kerala

Dr. Spoorthi B delivered a talk on 'Pedagogy for Hybrid Mode - a Hands-on Session' on 03-03-2021 at College of Engineering, Trivendrum, Kerala

Dr. Spoorthi B delivered a talk on Knowing self - Introspection & Reflection on 16-06-2021 in Summer Training Program, ASPIRE, organised by CCPD & ALC, NIT Warangal

Dr. Spoorthi B delivered a talk on Building a Personal Brand - First Impression on 18-06-2021 in Summer Training Program, ASPIRE, organised by CCPD & ALC, NIT Warangal

New lab established/ Equipment and Software procured

Dr. K. Madhavi, TLC Meeting Room budget worth Rs 3,32,406=00 , Meeting Tables and Chairs during 27-11-2020.

Dr. K. Madhavi, Computer Lab, TLC budget worth Rs 1,80,540=00 Computer tables 31-12-2020,.

Awards/ Recognitions/ Achievements

Dr. K. Madhavi received 'Best Performer Faculty Member' certificate during the One Week (Virtual) International Workshop on "Bridging Industry and Academia in Language Studies" organized by Amity University Jaipur, Rajasthan, from 15th July – 21 July 2021

PhD Research guidance (Completed during the academic year)-

Ms Jismy K Joseph submitted her thesis in May 2021

Department Outreach Activities

Dr.K.Madhavi is nominated as Coordinator, ERP , for SMILE project for NITW MIS Since 26 th October, 2021

Dr.K.Madhavi, BOS Committee, G. Pullaaiah College of Engineering, Kurnool since Jan 2021.

Dr.K.Madhavi,Member Core Steering Committee of Vigyan Prasar, DST Govt ofIndia sanctioned project to NIT Warangal entitled "Science Communication, Popularization and Extension" (SCoPE) Since 30 th September 2021.

Dr.K.Madhavi is Nominated as Expert Committee Member, to participate in Expert Visiting Committee, Meeting Online, appointed by **Western Regional Office, All India Council for Technical Education,** Mumbai for Bharati Vidyapeeth IMRDASangli, Maharashtra – 416416, on 30 th Dec 2020.

Dr.K.Madhavi is Nominated as Expert Committee Member, to participate in Expert Visiting Committee, Meeting Online, appointed by **Western Regional Office, All India Council for Technical Education,** Mumbai for College of Management and Computer Science, Department of Management, Yavatmal. Harikisan Jajoo Education Sanstha, Yavatmal, on 31st Dec 2020.

Department Association/Students Clubs Activities

Dr. B. Spoorthi, Faculty advisor of Literary and Debating Club since 2018- till date

Dr.P.Madhumathi, Faculty advisor of Music Club since August 2021

Any other Department Specific

Department highlights
PAN NIT HSSRC
Conference Chair: Dr. Madhavi Kesari

Organising Secretary: Dr. B.Spoorthi, Dr.P.Madhumathi, Dr. R. Vennela

The First Pan-NIT Humanities and Social Sciences Research Conclave (HSSRC) was inaugurated on, 8th January 2021 on an online platform. The conclave served as a platform for Humanities and Social Sciences researchers, practitioners and educators to present and discuss the most recent innovations and trends in the fields of Humanities and Social Sciences, organised by **the Department of Humanities and Social Sciences of National Institute of Technology Warangal**, in collaboration with **14 other NITs**.

DEPARTMENT OF PHYSICAL EDUCATION

Physical Education and youth fitness were assigned a definite place in their schemes of education. The finding of the biologists, physiologists and psychologists confirmed the necessity of activating muscles of all parts of the human body for their natural growth and the health for all round development.

With inactivity recognized as a menace to physiological well-being. Some authorities including the doctors suggest that exercise is the cheapest preventive medicine in the world. Researchers in physical education do agree that physical exertion is necessary for maintaining a functional physical fitness. Physical fitness provides us with basis for optimal physiological health and the capacity to enjoy a full life. Probably we do not need a high level of physical fitness to work in a world dominated by technical innovations but regular physical activity is necessary if our body is to function properly.

Health education and physical education have been accepted by the policy framers an essential and very important part of educational activity in schools and colleges. There has been unanimous appreciation that a healthy mind dwells in a healthy body and, therefore, physical and mental developments go together. Participation in games and sports improves the health of the participant and improves his motor qualities and responses. Even more importantly, active participation in games and sports fosters the attitude of sportsmanship, fairness and team spirit. It has been internationally recognized since long that if the schools and colleges do not provide outlet for the youth in a constructive and healthy manner through sports and games, the youth get into the habit of idling.

Modern thinkers in education, now a days, emphasize that the best individual is one who is physically fit, mentally sound and sharp, emotionally balanced and socially well adjusted. Out of the myriads of new facts concerned with educational process, the fact that human beings need a well-planned curriculum of physical education deserves much consideration. It then becomes imperative that the discipline of physical education should be put into proper perspective and thoroughly studied for the welfare of the humanity at large.

Keeping this as a background it is thought to strengthen the Physical Education Department at this prestigious institution so as to enable the student to improve their health and endurance, so that they can perform the duties that reward them after they leave the institution.

Faculty Details



Dr.P.Ravikumar
Professor



Dr. R.Dhayanithi
Professor



Dr.P.Madhusudhan
Professor

The Department of Physical Education has following Infra Structure Facilities

INFRA STRUCTURE INDOOR FACILITIES

- 2 Table Tennis Halls.
- 1 Chess and 1 Carrom Hall.
- 1 Yoga Hall.
- 1 Meditation Hall.
- 3 shuttle Badminton Courts.
- 2 Gym Halls.
- 3 Faculty Rooms.
- 2 Store Rooms.
- 1 Games Boys Room.

IN THE STADIUM

- Multipurpose Ground Facility with flood lights which accommodates standard 400 Mts. Track with Flood lights
- Kho-Kho Ground, Football, Cricket fields and with 2 artificial turf net practising cricket pitches with Flood lights
- Galleries of sufficient seating capacity in the stadium and also a walking track.
- 2 Synthetic Top surface Basketball Courts with flood lights and sitting galleries.
- 2 Volleyball Courts 5 Tennis Courts (2 Synthetic, 1 Concrete and 2 Clay Courts),
- 2 Ball Badminton Courts with Flood lights

INFRA STRUCTURE FACILITIES IN AND AROUND HOSTEL BLOCKS

- 2 Shuttle courts and 1 Tennikoit court inside the Ultra Mega hostel.
- At Ultra Mega hostel 2 clay Volleyball Courts and Basketball court near the Ultra Mega Hostel.
- Multipurpose Ground with flood lights to play any sort of sports and games (rear side of the ultra-mega hostel).
- Gym facilities 2 common halls in the mega hostels and 2 rooms in the ultra-mega block 1 hall in the DASA hostel.

15 Table Tennis tables were placed in different hostels as detailed below:

- 4 Table tennis in Ultra mega hostels
- 3 in the mega hostel
- 2 T.T Tables in the DASA Hostel, 14th Block, 13th Block, 12th Block 11th Block, 2nd block and 1st block.

INFRA STRUCTURE FACILITIES IN GIRLS HOSTELS

- 1 Concrete Basketball Court proposed to upgrade with Synthetic top and flood light facility.
- 1 Volleyball Court
- 2 Gym rooms in the lady's hostels
- 1 Tennikoit Court
- 2 Table Tennis Tables

The Department conducts Extra Academic Activity (EAA) programme as a mandate course for the first year students.

ROUTINE PROGRAMME OF THE DEPARTMENT of PHYSICAL EDUCATION

- Facilitating the student and staff community for the utilization of the available infrastructure facility in the institute to be physically fit and wellbeing.
- Conducts International Yoga Day 21 June every year in a grand scale.
- Organises Independence Day and Republic Day in a befitting manner with number of Physical Education activities
- To prepare institute teams towards participation in the Extramural Competitions like Inter NIT or Inter Universities and other open tournaments in various sports and games.

ORGANISATION OF TOURNAMENTS

- Conducting of Intramural competitions for student's community
- Organising Extramural competitions like Inter NIT or Inter Universities and other local tournaments.
- Friendly matches with other institutions for the students.
- Conducting fitness activities for the staff like Yoga, Meditation, Etc.
- Helping to conduct sports activities of various Departments & Associations.

National Open Athletics:

The 60th Open Nationals Race Walking Event, which has been, organized at our Campus in 20kms, 35kms, and 50kms Men and Women events. Our Beloved Director has flagged off the event and distributed the Medals to the winners. Registrar also gave away the Medals for the winners. The events took place during 16th-18th September 2021 from morning 5.00am to 11.30 am.











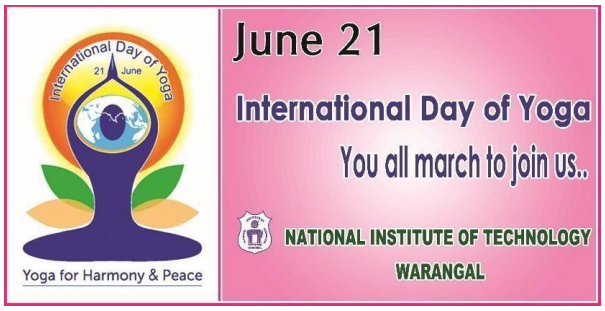


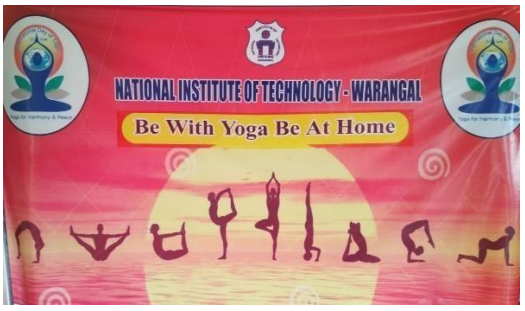


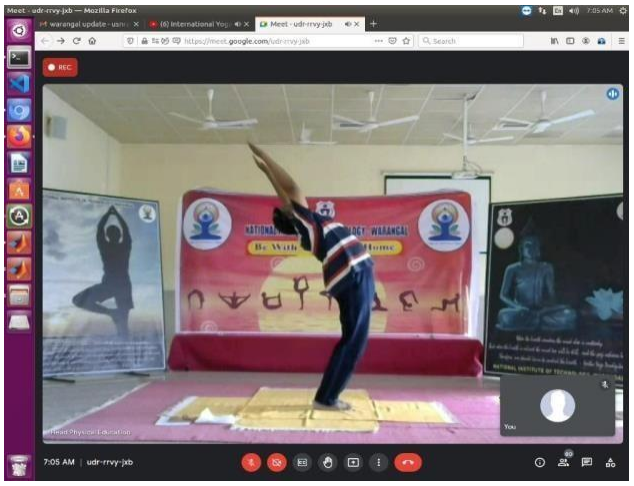


International Day of Yoga Celebrations

International Day of Yoga Day was celebrated (virtual session) held on 21st June, 2021. A large number of students, staff, faculty along with their family members took part in this programme.











Outreach Activities:

- Dr.P. Ravi Kumar delivered a lecture on "Health,Wellness & Personal Fitness" in the "International Webinar on Fitness a Way of Life" organised by the Directorate of Physical Education and Sports Science, S.K.University,Anantapur during National Sports Day 2021 Celebrations(29th August 2021)
- Dr. P. Ravi Kumar, Professor, Department of Physical Education as a Resource Person delivered a Lecture on "Capacity Building / Personal Effectiveness" during online FDP "PEASE – 2021" sponsored by AICTE – ATAL Academy Program at NIT, A.P., on 28-06-2021
- Dr. P. Ravi Kumar, Professor, Department of Physical Education as a Resource Person delivered a Lecture on "Promoting Excellence in Physical Education and Sports through Innovation in Teaching and Learning" during online FDP organized by Guru Angad Dev – Teaching Learning Centre of Ministry of Education, Sri Guru Tegh Bahadur Khalsa College and University of Delhi on 01-06-2021.
- DR.P.Ravi kumar, Moderator for Two Day International E-Conference on "Trends Issues and Development of Physical Education and Sports" under the aegis of NAPESS, DPE, Manipur University and Fit India Campaign Committee, during 30th & 31st July, 2020.
- Dr.P.Ravi Kumar, Resource Person delivered a Lecture on "Sustainability and Legacy in Sports: Challenges and Perspectives" in the IV International Conference (Webinar) at National University of Ukraine, KYIV, Ukraine during 26-27, November, 2020
- Dr.P.Ravi Kumar, Board of Studies in Physical Education, Kakatiya University since January, 2020

INTERNATIONAL RELATIONS AND ALUMNI ACTIVITIES 2020 - 2021



(Prof.N. SELVARAJ)
Dean, IR&AA

SPARC (Scheme for Promotion of Academic and Research Collaboration):

The major aim of SPARC initiative is to bring the strong research collaboration between Indian research groups with top research group in the leading Universities of the world, in areas that are at the cutting edge of science or with direct social relevance to the mankind, specifically India. The strong joint research should lead to tangible result that should include large number of high quality research publications, solution to key national and international problems, development of niche courses, high quality text books and research monographs, imbibing of best practices from top international academicians and researchers, strong bilateral co-operation, and improved world reputation and ranking of Indian Institutions. Prof N. Selvaraj is the nodal coordinator for SPARC from the institute. The institute also is the nodal coordinator for Taiwan under SPARC.

The institute has been sanctioned 10 projects under SPARC with collaboration from top universities of USA, UK, Taiwan, Singapore, Israel and Canada.

GIAN (Global Initiative for Academic Networks):

GIAN is a flagship program of the Ministry of Human Resource Development to bring some of the reputed academicians, researchers and industrial experts to the Indian institutes to conduct short term programmes of duration one to two weeks with the following objectives:

- To increase the footfalls of reputed international faculty in the Indian academic institutes.
- Provide opportunity to our faculty to learn and share knowledge and teaching skills in cutting edge areas.
- To provide opportunity to our students to seek knowledge and experience from reputed International faculty.
- To create avenue for possible collaborative research with the international faculty
- To increase participation and presence of international students in the academic Institutes.
- Opportunity for the students of different Institutes/Universities to interact and learn subjects in niche areas through collaborative learning process.
- Provide opportunity for the technical persons from Indian Industry to improve understandings and update their knowledge in relevant areas.
- Motivate the best international experts in the world to work on problems related to India.
- Develop high quality course material in niche areas, both through video and print that can be used by a larger body of students and teachers.
- To document and develop new pedagogic methods in emerging topics of national and international interest.

It is to be noted that NIT Warangal has been identified as one of the best performing institutes in the country. 69 courses were completed at the institute and these courses were highly commended and 17 courses were approved during 2020 - 2021.

Erasmus+ - Incoming Teaching Staff

The University of Santiago de Compostela participates in Erasmus+ International Credit Mobility (ICM) under Key Action 1 (KA107) since 2016 with partner institutions in several countries according to our Strategic Plan for Internationalisation

Erasmus+ ICM offers opportunities for students to study and staff to teach or train via exchanges with partner higher education institutions beyond Europe.

Via this programme, undergraduate students undertake an exchange for a semester for which credits are obtained, PhD students can carry out a research exchange for at least 3 months, and university **staff** can spend a week abroad teaching or training in internationalisation. 2 proposals were approved and 01 has been completed in 2020 – 2021.

Alumni Activities

- Distributed Laptops to the needy merit students donated by the NITW Alumni on 1st March, 2021
- NITWAA Warangal Chapter Family Get Together held on 03rd October, 2021
- NITWAA Madhya Pradesh Chapter Family Get Together was held on 31st October, 2021
- NITWAA Hyderabad Chapter Family Get Together was held on 07th November, 2021
- Distributed Text books to the needy students donated by the NITW 1980 Alumni batch on 10th October, 2021
- Distinguished Alumni Award Ceremony held on 10th October, 2021
-



Distinguished Alumni Award Ceremony held on 10th October, 2021 (Hybrid Mode)



Distributed Text books to the needy students donated by the NITW 1980 Alumni batch on 10th October, 2021

Profile of Academic Activities Organized during the Academic Year 2020-21

- ✓ The Teaching Learning Center (TLC) of NIT Warangal was established at NIT Warangal under the MHRD's "Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT)" scheme in 2016. It has been doing commendable job in conducting Faculty Development Programmes, both on the campus also in other Institutions.
- ✓ Under this Scheme, a separate building has been built exclusively for the TLC activities, with the state-of-art training facilities that include a studio for production of video and e-lectures, training halls, seminar halls, a computer lab for developing on-line courses and other learning resources, learning spaces for facilitating interaction among various stake holders. The center also has facilities for hosting on-line courses employing Learning Management Systems like MOODLE.
- ✓ The Centre has so far conducted 59 In-house Faculty Development Programs (FDPs) and trained 2920 Faculty Members in 374 training days. Out of 59 FDP's organized, the TLC has organized 2 Faculty Development Programmes especially for Women Faculty in Higher Education during the months of January and June, 2019 and trained 121 Faculty Members drawn from various parts of the Country.

ORGANIZATIONAL MEMBERS



Prof. N. V. Ramana Rao
Director, NIT Warangal
Chairman, TLC



Prof. V. Rajeswar Rao
Dean, R&C,
Co-Chairman, TLC



Prof. D.V.S.S. Siva Sarma
Coordinator
TLC

- ✓ The TLC of NIT Warangal is now conducting all its training programmes virtually through Online Mode due to COVID-19. The Centre has conducted 25 Online Faculty Development Programmes in 118 Training Days and trained nearly 1557 Participants across the country.
- ✓ The center has conducted three Faculty Training Programmes and trained 350 faculty members of NIT Warangal in Learning Management System with MOODLE. The role and importance of asynchronous learning need not be over-emphasized in the present scenario of COVID-19 assuming pandemic proportions.

- ✓ The pandemic has only triggered the need to expedite process of adapting MOODLE, as the transformation from the conventional classroom model to LMS based model has become inevitable. This training program, which is being organized under the aegis of the Teaching-Learning-Centre (TLC), is essentially a humble beginning in the endeavor of achieving this objective.

LIST OF FACULTY DEVELOPMENT PROGAMS ORGANIZED BY THE TLC DURING THE ACADMEMIC YEAR 2020-21

S. No.	Title of the Virtual Workshop - Training Programme	Dates	Number of Participants	Organized by	Coordinators
1	Innovative Teaching Methods on Recent Advances in Concrete and Sustainable Technologies (ReCAST-2020)	1-5 Jul 2020	50	Department of Civil Engineering	Prof. P. Ratish Kumar, Prof. G. Rajesh Kumar, Dr. S. Venkateswara Rao
2	Emerging Trends in Biotechnological Advancements: Challenges and Prospects in Tackling Human Diseases	13-17 Jul 2020	77	Department of Biotechnology	Dr. Prakasah Saudagar, Dr. S. Chockalingam
3	Teaching and Learning of Additive Manufacturing Technology: Emphasis on Metal 3D Printing	13-18 Jul 2020	115	Department of Mechanical Engineering	Dr. Y. Ravi Kumar, Prof. L. Krishnanand, Dr. M. Manjaiah
4	Learning Management System with MOODLE	Jul 14-17 2020; Jul 21-24 2020; Jul 28-31 2020	350	TLC	Prof. A.Ramachandraiah ; Prof. V. T. Somasekar
5	Teaching and Learning of Advanced Control Systems	10-16 Aug 2020	96	Department of Electrical Engineering	Dr. B.L. Narsimha Raju, Prof. M. Sailaja Kumari, Dr. R. Jeyasenthil
6	Recent Trends in Computer Simulations for applications in Biotechnology: Teaching and Learning strategies	17-21 Aug 2020	47	Department of Biotechnology	Dr. Soumya Lipsa Rath, Dr. R. Satish Babu
7	Advances in Biological Wastewater Treatment Methods: Teaching and Learning Strategies	7-11 Sep 2020	85	Department of Biotechnology	Dr. Surajbhan Sevda, Dr. R. Satish Babu
8	Content Preparation and Delivery for Online Mode of Teaching	5-10 Oct 2020	35	TLC	Dr. Thyageshwar C, Dr. T. Naresh, Dr. M. Satish, Prof. A. Ramachandraiah

9	Teaching and Learning of Advances in Manufacturing Technologies	30 Nov - 4 Dec 2020	47	Department of Mechanical Engineering	Prof. A. Kumar, Prof. L. Krishnanand, Dr. M. Manjaiah, Dr. Gangadharudu T
10	Teaching and Learning Strategies of Differential Equations and Applications in Science and Engineering	28 Dec 2020 1 Jan 2021	63	Department of Mathematics	Dr. P. Muthu, Dr. H. P. Rani, Dr. D. Bhargavi
11	Modern Digital Library Science and Technologies for Teaching, Learning and Research	4-8 Jan 2021	93	Central Library	Dr. K. Veeranjaneyulu, Prof. A. Ramachandraiah
12	Effective Teaching and Learning of Techniques for Monitoring, Protection and Control of Microgrids	18-22 Feb 2021	55	Department of Electrical Engg	Dr. Y. Chandrasekhar, Dr. Altaf Q.H. Badar
13	Teaching and Learning of NMR Spectroscopy for Structure Determination	19-24 Feb 2021	86	Department of Chemistry	Dr. B. Srinivas, Dr. K. Hari Prasad
14	Teaching and Learning of Green Chemistry: Nurturing a New Generation of Chemists	26 Feb - 3 Mar 2021	62	Department of Chemistry	Dr. K. Hari Prasad, Dr.B. Srinivas
15	Effective Teaching and Learning of Power Converters for Electric Vehicles	1-6 Mar 2021	60	Department of Electrical Engg	Dr. P. Srinivasan, Dr.S. Porpandiselvi, Prof.N. Vishwanathan
16	Teaching and Learning of Drug Discovery Process	4-9 Mar 2021	67	Department of Chemistry	Dr.D.Kashinath,Dr .V. Rajesh Kumar
17	Teaching and Learning Strategies for Frontiers in Membranes for Wastewater Treatment	8-12 Mar 2021	53	Department of Chemical Engg	Prof.Anand Kishore Kore, Dr. Kishant Kumar, Dr. Naresh Thota
18	Teaching and Learning of Power Converters and Control Techniques for Renewable Energy Systems	8-13 Mar 2021	41	Department of Electrical Engg	Dr.Swathi Devabhaktuni, Dr. S. Porpandiselvi, Prof.N. Vishwanathan
19	T and L of Open Source Simulation Software SCILAB	10-14 Mar 2021	158	Department of Electrical Engg	Dr. S. Porpandiselvi,Dr.Y. Chandrasekhar, Prof.P. Srinivasan, Dr.P. Deepak Reddy
20	Teaching and Learning Practices in Computational Biology	15-19 Mar 2021	28	Department of Biotechnology	Dr. Perugu Shyam,Dr.Anbumathi P
21	Effective Teaching and Learning of Modern Electric Drives	15-20 Mar 2021	27	Department of Electrical Engg	Dr. P. Srinivasan, Prof. V.T. Somasekhar, Dr. A. Kirubakaran

22	Applications of DFT (Density Functional Theory) in Teaching and Learning Chemistry, Physics & Material Science - with Software for Chemistry and Materials (SCM-AMS)	19-24 Mar 2021	53	Department of Chemistry	Dr.M.Raghasudha, Dr. Ravinder Pawer

TOTAL NUMBER OF ACTIVITIES ORGANIZED BY THE TEACHING LEARNING CENTRE

S. No.	Activity	Total No. of Programmes Conducted	Total No. of Training Days	Total No. of Faculty Trained
1	Faculty Development Programmes (FDPs)	55	282	2,720
2	Four-Week Induction Training Programmes (ITPs)	3	90	128
3	Four-Day Faculty Training Programmes (FTPs)	3	12	350
4	Conferences	1	2	72
5	Online Faculty Development Programmes (FDPs)	25	118	1,557
	Total	87	504	4,827

GLIMPSES OF THE ACTIVITIES CARRIED OUT BY THE TEACHING LEARNING CENTRE





NATIONAL CADET CORPS (NCC)

NCC aims at inculcating a sense of patriotism and national pride in students. In addition it helps in physical fitness and also promotes all round personality in the students. Adequate facilities exist in the Institute for regular parades firing, training "obstacle course" and organizing camps. At present our Institute is having NCC (ARMY WING) student strength of 100.



NCC Officer: Lt. Dr. Udaya Bhasker M



Details of Certificates:

S.No.	Name of the certificate	Duration
1	B	2 Years
2	C	1 Year

Social Service Activities of NCC:

NCC has adopted community development activities with the aim of imbibing amongst cadets selfless service to the community, dignity of labour importance of self help, need to protect the environment and to assist weaker sections of the society in their up liftment. This was envisaged through programmes involving

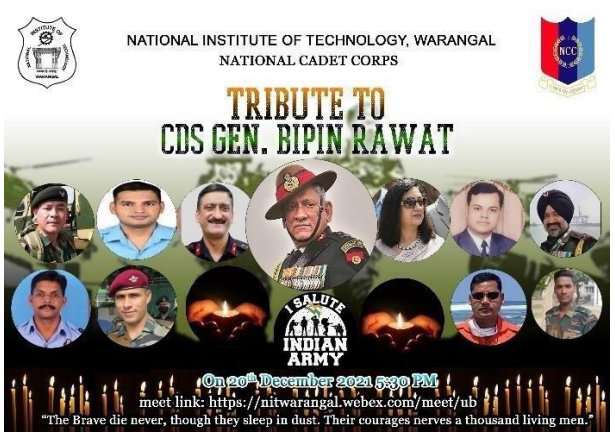
1. Tree Plantation
2. Blood Donation

3. Visit of old age homes
4. AIDS awareness Rally
5. Disaster Management
6. Anti Drug/Tobacco awareness rally
7. Village adaption program
8. FIT INDIA Program
9. Ek Bharat Shresht Bharat Program
10. Awareness on New Education Policy

Camps During 2020-2021

1. Inter Group Competition – Thota Madhu (TS19/SDA/200124)
2. Ek Bharat Shresht Bharat Camp – YalakaSushmitha (TS19/SWA/200149)
3. International Youth Exchange Programme, Singapore – Thota Madhu (TS19/SDA/200134)
4. Firing Camp – Thota Madhu (TS19/SDA/200134)
5. Treking Camp, Thirupathi – HariprasadSuvvari (TS19/SDA/200134)
6. Combined Annual Training Camp – 42 (27 -SD, 15 – SW)
7. Treking Camp, Belgavi – Vijay kumarmopidevi (TS19/SDA/200121), HariprasadSuvvvari(TS19/SDA/200134)









Activities During 2020 – 2021

1. Essay and Poster Making Competition
2. August 15 Independence Day Piloting by Lavanya and Mary prathima
3. Fit India Program
4. RashtraGaan
5. AIDS Awareness Programme
6. Tribute To Chief Defence Staff General Bipin Rawat.

UNNAT BHARAT ABHIYAN

Unnat Bharat Abhiyan (UBA) is a flagship programme of Ministry of Human Resource Development, Government of India. This programme aims to enhance Rural India by leveraging higher educational institutes in building the architecture of an inclusive India. UBA was initially launched by the Ministry of Human Resource Development (MHRD) in 2014 and later, Unnat Bharat Abhiyan 2.0 was launched on April 25, 2018.

UBA is a highly challenging scheme as it allows the students and faculty of various Higher Educational Institutes to devise methods and technologies for the betterment of rural populations. Especially in the agricultural field, as 71% of India's rural population is involved in agrarian activities. The main aim of UBA was to use eco-friendly technologies that could be easily accessed by the people of villages and help them lead a decent livelihood and provide them with shelter, food, and basic necessities.



Dr G Sunitha, Asst Prof, SOM

Activities Conducted from June 2020 - 21

New PIs joined under RCI – NIT Warangal:Balaji Institute of Technology & Science, Sri Sumathi Reddy Institute of Technology for Women, Talla Padmavathi College of Engineering, Khammam Institute of Technology and Science

WEBINAR ON **"Emerging Trends for Sustainable Rural Development through Organic Farming and Water Purification"**

Date: AUGUST 08/08/2020

National Education Policy 2020 – Sensitization September – 2020

Visit to Jangoan Village – An Intiative to encourage organic farming – Aprl 2020

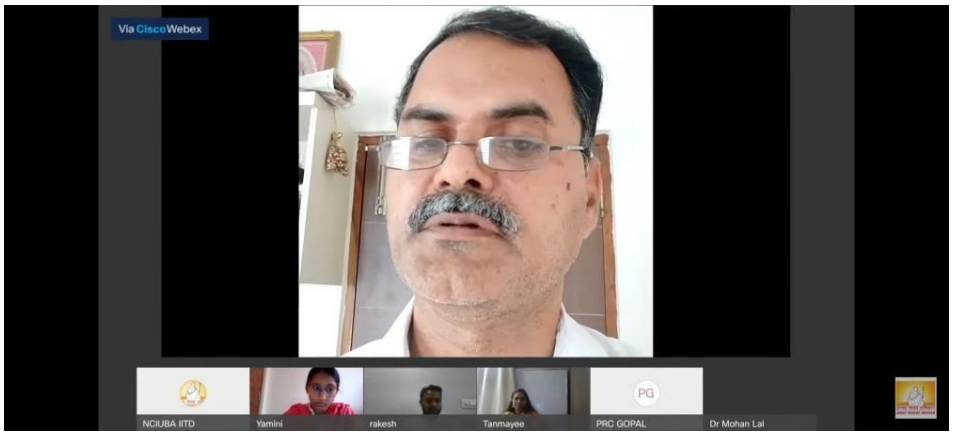






UNNAT BHARAT ABHIYAN - GRAM AAROGYA SERIES WEBINAR ON

"COVID AWARENESS AND MYTHS IN VACCINATION" JUNE 2021 By Dr. Mohanlal Banoth, M.D., Associate Professor, Osmania General Hospital, Hyderabad



NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL

CENTRE FOR EDUCATIONAL TECHNOLOGY

Data for Annual Report 2020-21

Centre for Educational Technology at NIT Warangal was established in 1987 with an aim of improving instructional methods. Since its inception, the centre has organized a number of seminars and short-term training programs in Educational Technology to help teachers of engineering stream in acquiring effective instructional skills.

Faculty and Student Training Programs Organised during 2020-2021

1. **Centre for Educational Technology** organized a One-week online STTP on "**Learning Management System: MOODLE**" during **10th - 14th August, 2020**, in association with Department of Mechanical Engineering. This program was coordinated by Dr. M. J. Davidson, and Dr. G. Venkatesh. This program was conducted for the faculty of technical institutes to enable them handling the online educational requirement arising out of Covid-19 pandemic. About 120 faculty members of reputed institutes from different states of the country have participated. The exhibit of Moodle sites developed by the participants in the final day of the course proved the effectiveness of the course in meeting the course objectives.
2. **Centre for Educational Technology** organized a One-week online STTP on "**MOODLE Learning Management System**" during **4th -8th January, 2021**, in association with Department of Mechanical Engineering and Department of Computer Science and Engineering. This program was coordinated by Dr. G. Venkatesh, Dr. Ilaiah Kavati and Dr. M. J. Davidson. This program was conducted for the faculty of technical institutes to enable them handling the online educational requirement arising out of Covid-19 pandemic. About 40 faculty members of reputed institutes from different states of the country have participated.
3. **Centre for Educational Technology** organized a **Five-Day Online Student Training Programme** on "**Teaching and Learning of Open-source simulation software-SCILAB" during 10th – 14th March, 2021** in association with Teaching Learning Centre and Department of Electrical Engineering **for the students of NIT Warangal**. This program was coordinated by Dr. S. Porpandiselvi, Dr. Y. Chandrasekhar, Dr. P. Srinivasan and Dr. P. Deepak Reddy. This program was conducted for the students of NIT Warangal to provide online training on Sci-lab, which is a free and open-source, cross-platform numerical high-level, programming language which is an alternate to MATLAB. **158 students have participated in this training program and got benefited.**

Dr. S. Porpandiselvi,
Faculty I/c, CET

Photo Gallery







Republic Day Celebrations







బహుముఖ విజ్ఞానవంతులుగా తీర్చిదిద్దాలి

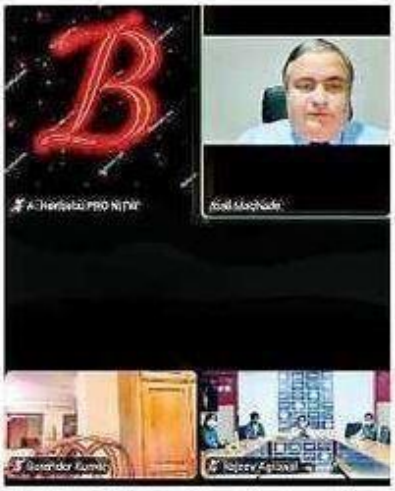


వెబినార్‌లో మాట్లాడుతున్న డీఆర్‌డీవో ఛైర్మన్ డాక్టర్ జి.సతీష్‌రెడ్డి, ఐఐటీ ఛైర్మన్ డాక్టర్ బి.వి.ఆర్.మోహన్‌రెడ్డి, చిత్రంలో నిట్ సంచాలకుడు ఎన్.వి.రమణారావు

నిట్‌క్యాంపస్, న్యూస్‌టుడే: విద్యార్థులను బహుముఖ జ్ఞానవంతులుగా తీర్చిదిద్దే విధంగా నూతన విద్యా విధానం అమలు చేయాలని జాతీయ వెబినార్‌లో ప్రముఖ విద్యావేత్తలు ఉద్బోధించారు. వరంగల్ జాతీయ సాంకేతిక విద్యా సంస్థ(ఎన్‌ఐటీ) ఆధ్వర్యంలో 'సాంకేతిక విద్యలో జాతీయ విద్యా విధానం అమలు వ్యూహాలు' అనే అంశంపై బుధ వారం ఆన్‌లైన్‌లో జాతీయ వెబినా ర్‌ను నిర్వహించారు. ఈ వెబినార్‌లో దేశవ్యాప్తంగా ఐఐటీ, ఎన్‌ఐటీలతో పాటు పారిశ్రామిక, పరిశోధనా సంస్థల ప్రముఖులు పాల్గొన్నారు. నిట్ సంచాలకుడు ఆచార్య ఎన్.వి. రమణారావు మాట్లాడుతూ దేశం లోనే వరంగల్ నిట్ ప్రతిష్టాత్మక ఇంజి నీరింగ్ కళాశాలగా గుర్తింపు పొందింద న్నారు. సాంకేతిక విద్యలో ఎన్‌ఈపీ అమలుపై వెబినార్ నిర్వహించడం గర్వించదగిన విషయ మన్నారు. గౌరవ అతిథిగా పాల్గొన్న డీఆర్‌డీవో ఛైర్మన్ డాక్టర్ జి.సతీష్‌రెడ్డి మాట్లాడుతూ క్షేత్ర స్థాయిలో పరిశోధనలు చేసి నూతన ఆవిష్కర ణలు చేసేవిధంగా ఎన్‌ఈపీ అమలు చేయాల న్నారు. ఇంటర్నెట్ ఆఫ్ థింగ్స్(ఐవోటీ), బిగ్ డేటా, మెషిన్ లెర్నింగ్ వంటి అంశాలపై బహు ముఖ పరిజ్ఞానం కలిగి ఉండాలన్నారు. సాంకే తిక విద్యా సంస్థల పరిశోధకులకు డీఆర్‌డీవోలో అవకాశాలు అందుబాటులో ఉన్నట్లు తెలిపారు. హైదరాబాద్ ఐఐటీ ఛైర్మన్ డాక్టర్ బి.వి.ఆర్. మోహన్‌రెడ్డి మాట్లాడుతూ నూతన ఆవిష్కర ణలు చేసేలా విద్యావిధానం ఉండాలన్నారు. ఏఐ సీటీఈ ఛైర్మన్ అనిల్ డి.సాహస్రబుద్ధే, ఎన్‌బీఏ ఛైర్మన్ ప్రొఫెసర్ కె.కె.అగర్వాల్, ఎన్‌ఐటీ తిరుచ్చి డైరెక్టర్ ప్రొఫెసర్ మినీషాహిదామస్ వివిధ అంశాలపై ప్రసంగించారు. వెబినార్‌కు నిట్ అకడమిక్ డీన్ ఆచార్య శివశర్మ, ప్రొఫెసర్లు కె.వి.జయకుమార్, ఎం.సైదులు, సీఎస్‌కె. ప్రసాద్, డాక్టర్ పి.వెంకటేశ్వరరావు సందానకర్త లుగా వ్యవహరించారు.

ఈనాడు
epaper.eenadu.net

తయారీ రంగంలో మార్పులతో ఎన్నో అవకాశాలు



సదస్సులో మాట్లాడుతున్న పోర్చుగల్ మిన్హో వర్సిటీ ప్రొఫెసర్ జోష్ మెసిడో

నిట్‌క్యాంపస్, న్యూస్‌టుడే: తయారీ రంగంలో వస్తున్న మార్పు లపై వరంగల్, జైపూర్, ఉత్తరాఖండ్ ఎన్‌ఐటీలు సంయుక్తంగా ఆన్‌లైన్‌లో మూడు రోజుల అంతర్జాతీయ సద స్సును గురువారం ప్రారంభించాయి. ఈ సదస్సులో పాల్గొన్న వక్తలు సాంకేతిక సహకారంతో తయారీ రంగంలో స్థానిక ఉత్పత్తులకు ప్రాధా న్యమిచ్చి కొత్త తరం పారిశ్రామికవేత్త లకు సరికొత్త అవకాశాలు కల్పించా లని ఉద్ఘాటించారు. పోర్చుగల్ దేశం మిన్హో విశ్వవిద్యాలయానికి చెందిన ప్రొఫెసర్ జోష్ మెసిడో కొవిడ్-19 నేపథ్యంలో అంతర్జాతీయంగా తయారీ రంగంలో వస్తున్న మార్పుల గురించి వివరించారు. వరంగల్ నిట్ సంచాలకులు ఆచార్య ఎన్.వి.రమణారావు నిట్ యాంత్రిక విభాగంలో త్రీడీ ప్రింటింగ్, టూల్‌టెక్నాలజీ తదితర అంశాలపై చేపట్టిన విస్తృత పరిశోధనలను వివరించారు. పలువురు అధ్యా పకులు అంతర్జాతీయ స్థాయి పేటెంట్‌లను సైతం దక్కించు కున్నారని చెప్పారు. ఎన్‌ఐటీ యాంత్రిక విభాగం హెడ్ ప్రొఫెసర్ ఆడెపు కుమార్ మాట్లాడుతూ దేశంలోని విద్యా, పారిశ్రామిక సంస్థలతో ఎంఓయూలు కుదుర్చుకొని పలు సదస్సులు, వెబినార్లు, వర్క్‌షాపులు నిర్వహించి తయారీ రంగంలో నూతన ఆవిష్కరణల కోసం పరిశోధ నలు కొనసాగిస్తున్నట్లు చెప్పారు. అనంతరం సద స్సులో పాల్గొన్న ఆచార్యులు ఆన్‌లైన్‌లో పరిశోధన పత్రా లను సమర్పించారు. ఈ సదస్సులో జైపూర్, ఉత్తరా ఖండ్ ఎన్‌ఐటీల సంచాలకులు ఆచార్య ఆర్.వై. ఉదయ్ కుమార్, ఆచార్య సతీష్‌కుమార్ పాల్గొన్నారు.



A student in his virtual avatar receives his degree as part of the 18th convocation of NIT Warangal.

Virtual convocation of NIT-W held

DC CORRESPONDENT
WARANGAL, OCT. 22

Union education minister Ramesh Pokhriyal 'Nishank' virtually addressed the students at the 18th Convocation Ceremony of NIT Warangal on Thursday.

The convocation was held through Motion Cap augmented Reality Virtual Technology because of the Covid -19 pandemic.

As many as 1,607 candidates received their degrees during the convocation. Out of this, 119 are PhD Degree awardees, 616 are M.Tech and other Post Graduate Degree awardees and 872 are B.Tech. Degree awardees.

In each branch of engineering, the topper of B.Tech. receives the Roll of Honour gold medal, and the topper of all branches receives the Institute Gold Medal.

Apurva Bhardwaj, of Chemical & Engineering, received the Institute's gold medal by the minister virtually in the convocation. He had the highest CGPA among all the branches of engineering. Seven other students also received gold medals.

He inaugurated the newly constructed buildings including, the Pandit Madan Mohan Malaviya Teaching and Learning Centre, Visvesvaraya Skill Development Centre, Sardar Vallabhbhai Patel Guest House on the campus and also laid the foundation for the Rudrama Devi Ladies Hostels Complex.

N.R. Narayana Murthy, Padma Vibhushan awardee, Founder of Infosys and chairman emeritus, Dr N.V. Raman Rao, director, NIT Warangal and chairman Board of Governors were present.

NITW convocation today

HANS NEWS SERVICE
WARANGAL

THE NIT, Warangal, (NITW) is all set for its 18th convocation on its campus at 4.50 pm on Thursday. Union Minister for Education Dr Ramesh Pokhriyal Nishank and founder of Infosys NR Narayana Murthy are the chief guest and guest of honour for the convocation.

In view of Covid-19 pandemic, over 1,600 students will be participating in the ceremony from the safety of their homes and will have their e-avatars walk up the live dais to receive medals and degrees from virtual avatars of dignitaries.

NITW Director Prof N V Ramana Rao said a record number of 1,607 candidates would receive their degrees during the convocation. Out of this, 119 are Ph D Degree awardees, 616 are M Tech and other Post Graduate Degree awardees and 872 are B Tech Degree awardees. In each branch of Engineering, the topper of the B Tech class is awarded the Roll of Honour Gold Medal and the topper of all branches put together is awarded the Institute Gold Medal.

Apurva Bhardwaj of Chemical Engineering would receive the Institute Gold Medal in the convocation for being the student with the highest CGPA among all the branches of Engineering.

The Convocation ceremony will be telecast live on the official YouTube link: https://youtu.be/pcIopgfIB1u, Twitter & Facebook page of the institution.

సాంకేతిక నిపుణులకు కొదువ లేదు

» కేంద్ర విద్యాశాఖ మంత్రి రమేష్ పోక్రియాల్

» ఘనంగా నిట్ 18వ స్నాతకోత్సవం



ఆవల్లి పిలో ప్రసంగిస్తున్న కేంద్ర మంత్రి రమేష్ పోక్రియాల్



ఈ- అవతార్ రూపంలో డాక్టరేట్లను ప్రదానం చేస్తున్న దృశ్యం

నిట్‌క్యాంపస్(తంబుపేట), అక్టోబరు 22 : దేశంలో సాంకేతిక నిపుణులకు కొదువ లేదని కేంద్ర మంత్రి రమేష్ పోక్రియాల్ నిశాంక్ అన్నారు. వరంగల్‌లోని జాతీయ సాంకేతిక సంస్థ (నిట్)లో గురువారం 18వ స్నాతకోత్సవం ఘనంగా నిర్వహించారు. కొవిడ్-19 కారణంగా ఆన్‌లైన్‌లో జరిగిన ఈ కార్యక్రమానికి ముఖ్య అతిథిగా కేంద్ర మంత్రి రమేష్ పోక్రియాల్, విశిష్ట అతిథిగా ఇన్ఫోసిస్ వ్యవస్థాపకుడు ఎన్ఆర్ నారాయణమూర్తి పాల్గొన్నారు. నిట్ సాంకేతిక పరిజ్ఞానాన్ని ఉపయోగించి 'ఈ-అవతార్' రూపంలో అతిథులు ప్రత్యక్షంగా పాల్గొన్నట్లు కనిపించడం ఆకట్టుకుంది. ఈసందర్భంగా కేంద్రమంత్రి మాట్లాడుతూ సాంకేతిక రంగంలో దేశం పురోగతి సాధిస్తోందని, ప్రపంచానికి సాంకేతిక పరిజ్ఞానాన్ని అందించే స్థితిలో నిలిచామని సంతోషం వ్యక్తం చేశారు. ప్రధాని మోదీ 'మేక్ ఇన్ ఇండియా', డిజిటల్ ఇండియా, స్టార్టప్ ఇండియా' వంటి పథకాలతో ప్రపంచానికి ఐటీపరంగా ఎదుగుస్థానంగా దేశాన్ని మార్చారని కొనియాడారు. అందుకు తగినట్లు పరిశోధన రంగానికి ప్రాధాన్యం కల్పిస్తున్నారన్నారు. నిట్ విద్యార్థులు, పరిశోధకులు తమ ఆవిష్కరణలతో దేశానికి మేలు ప్రతిఫలం తీసుకువస్తారని ఆకాంక్షించారు. ఎన్ఆర్ఎస్ రాంకింగ్‌లు మెరుగవరచుకోవాలంటూ దేశంలోనే అగ్రశ్రేణి నిట్‌గా రూపొందించుకుంటుండడాన్ని...

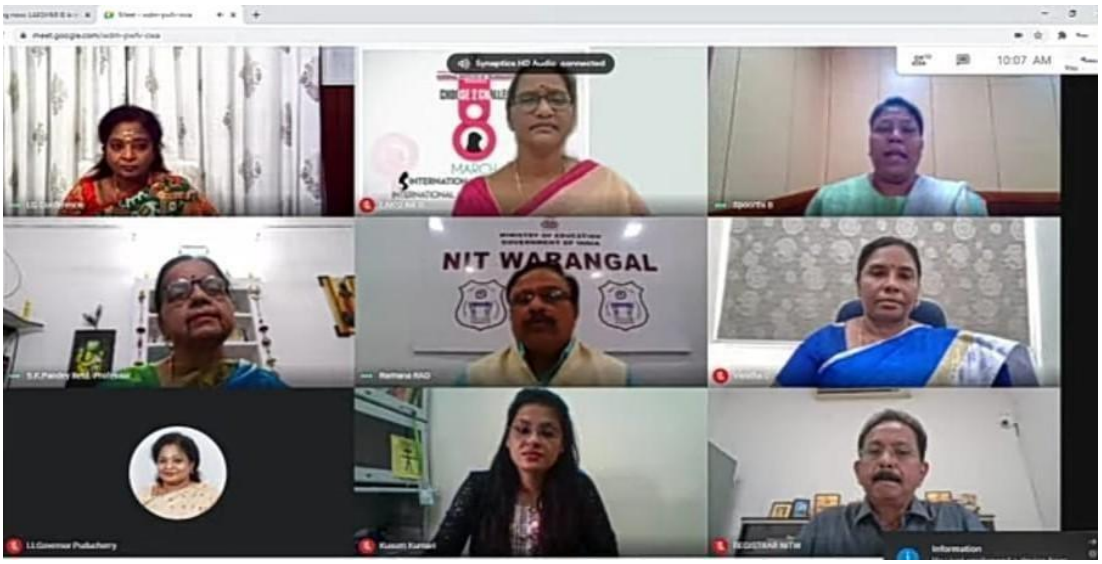
వక్తృత్వం పనిచేయడం కంటే ఎల్లుగా పనిచేసే విజయం సాధిస్తారు ఇన్ఫోసిస్ వ్యవస్థాపకుడు ఎన్ఆర్.నారాయణమూర్తి అన్నారు. నిట్ డైరెక్టర్ ప్రొఫెసర్ ఎన్వీ రమణారావు 61వ్ నిట్ పరిధిను వివరించారు. నిట్ ఆడమిక్, పబ్లిషాలు, పరిశోధనలు, ఎక్సటేన్షన్, సామాజిక కార్యక్రమాల గురించి తెలిపారు. కరోనా కాలంలో నిట్‌లు, పరిశోధనలు చేసిన కృషి మరువలేదన్నారు. స్నాతకోత్సవంలో భాగంగా కళాశాలలో మొత్తం 1807 మందికి డాక్టరేట్, డిగ్రీలను, మీడ్ పట్టాలను ఈ-అవతార్ రూపంలో సిద్ధంచేసి ప్రదానం చేశారు. కెమికల్ ఇంజనీరింగ్ విభాగానికి చెందిన విద్యార్థి అపూర్వ భరద్వాజ్ ఇన్స్టిట్యూట్ గోల్డ్‌మెడల్‌గా నిలిచారు. అంతకుముందు అమరశిల్పి జక్కన్న లలితకళా నిర్మాణ వందేళ్ల మదన్ మోహన్ మాలవీయ టీచింగ్ లర్నింగ్ సెంటర్, విశ్వేశ్వరయ్య స్కిల్ డెవలప్‌మెంట్, వల్లభాయ్ పటేల్ విద్యార్థి గృహాలను ఈ-అవతార్ రూపంలో ప్రారంభించారు. అలాగే రుద్రమదేవి గర్ల్స్ హాస్టల్‌కు శంకుస్థాపన చేశారు. కార్యక్రమంలో నిట్ రిజిస్ట్రార్ ఎస్ గోవర్ధన్‌రావు, డీన్ వేణుగోపాల్, అధ్యాపకులు, పరిశోధకులు, విద్యార్థులు పాల్గొన్నారు.

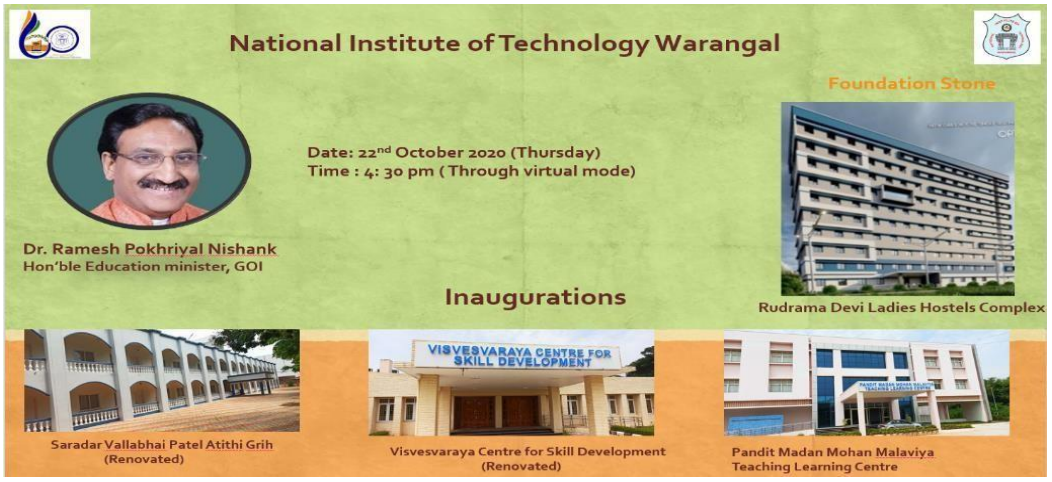
ملک میں تکنیکی ماہرین کی کوئی کمی نہیں: رمیش پوکریال

ورنگل میں این آئی ٹی کی 18 ویں سالانہ تقریب۔ مرکزی وزیر تعلیم کا خطاب



ورنگل۔ 23 راکتوبر (اسٹاف رپورٹر) مرکزی وزیر تعلیم رمیش پوکریال نشانک نے کہا کہ ملک میں تکنیکی ماہرین کی کوئی کمی نہیں ہے نیشنل انسٹی ٹیوٹ آف ٹکنالوجی ورنگل میں 18 ویں سالانہ تقاریب کا جشن منانے پر منعقدہ ویبنار میں ملایا گیا کورونا۔19 کے پیش نظر آن لائن کے ذریعہ منعقدہ اس پروگرام میں مہمان خصوصی کے طور پر مرکزی وزیر رمیش پوکریال نشانک ،انڈین انسٹی ٹیوٹس کے بانی این آر نارائنا مورتی نے شرکت کی۔ 13 ڈی ٹکنالوجی کا استعمال کرتے ہوئے ''ای۔ اے۔ اے'' کی شکل میں مہمانان کو لائیو ویڈیو کیا گیا مظہر اقبال تعریف تھا۔ اس موقع پر مرکزی وزیر رمیش پوکریال نے خطاب کرتے ہوئے کہا کہ ٹکنالوجی کے شعبہ میں ملک تیزی کے ساتھ آگے بڑھ رہا ہے۔ انہوں نے اس بات پر اطمینان کا اظہار کیا کہ ہم دنیا کو ٹکنالوجی فراہم کرنے کے موقف میں ہیں۔ انہوں نے کہا کہ ''میک ان انڈیا'' ''ڈیجیٹل انڈیا'' اور ''اسٹارٹ اپ انڈیا'' اسکیمات کے ذریعہ ملک کو وزیر اعظم نریندر مودی نے دنیا کو اپنی پیدوار و سرمایہ کاری کے ملک کے طور پر پیش کیا ہے۔ اس سلسلے میں ترقی اور تحقیق شعبہ کے میدان میں خصوصی ترجیح دی جارہی ہے۔ انہوں نے این آئی ٹی کے طلباء کی ستائش کرتے ہوئے کہا کہ یہ طلباء اپنی ایجادات کے ذریعہ ملک کا نام روشن کررہے ہیں۔ انڈین انسٹی ٹیوٹس کے بانی این آر نارائنا مورتی نے کہا کہ خصوصی طور پر کام کرنے کے بجائے متحد طور پر کام کرنے کے کامیابی حاصل ہوتی ہیں۔ اس موقع پر ورنگل این آئی ٹی ڈائرکٹر این وی رمنا راؤ نے 61 سالہ این آئی ٹی کی تاریخ بیان کی۔ اس موقع پر انہوں نے ٹرنٹ ایکیڈیمک، ورک شاپس تحقیقات، انٹلیکچوئل پراپرٹی رائٹ اور سوشیل پروگرامس کے تحقیق سے متعلق تفصیلات بیان کیں۔ انہوں نے کہا کہ کورونا حالات کے دوران ملازمین اور طلبہ کی کامیابی کی کوششیں ناقابل فراموش ہیں۔ اس سالانہ تقریب میں جملہ 1,607 افراد طلباء کو 13 ڈاکٹریٹ، ڈگری اور پی جی پڑھائی کے 13 ڈی ای۔ اے۔ اے کی شکل میں حقیقت پسندانہ تصاویر کے ذریعہ پیش کیا گیا۔ یہ کھلی انجینئرنگ شعبہ سے تعلق رکھنے والا طالب علم ہاورہ واج، انسٹی ٹیوٹ گولڈ میڈل کو حاصل کیا۔ جبکہ الیکٹرانکس اور ٹکنالوجی سے تیار کئے گئے چندر مان موہن مالویا بیچلر آرٹ سنٹر، وشوکرما سنٹر، وشوکرما سنٹر فار ڈیولپمنٹ اور دلا بھائی جیل گیسٹ ہاؤز کا ای۔ اے۔ اے کی شکل میں افتتاح عمل میں لایا گیا۔ اسی طرح رودرا دیوی گرلز ہاسٹل کا سنگ بنیاد رکھا گیا۔ اس موقع پر این آئی ٹی رجسٹرار لیس گوورمن راؤ، ڈین ویلفیئر گوپال، اساتذہ، تحقیقین، طلباء موجود تھے۔


NIT WARANGAL


National Institute of Technology Warangal
Foundation Stone
Date: 22nd October 2020 (Thursday)
Time : 4: 30 pm (Through virtual mode)
Dr. Ramesh Pokhriyal Nishank
Hon'ble Education minister, GOI
Inaugurations
Rudrama Devi Ladies Hostels Complex
VISVESVARAYA CENTRE FOR SKILL DEVELOPMENT
Saradar Vallabhai Patel Atithi Grih (Renovated)
Visvesvaraya Centre for Skill Development (Renovated)
Pandit Madan Mohan Malaviya Teaching Learning Centre


NIT Warangal Creates eco-friendly wonder with'Miyowaki' forest
Before miyowaki forest tree plantation started on 15.08.2019
Now NIT Warangal Creats 'Miyovaki' forest
అడవిని సృష్టించారు!

నిట్‌లో ఓపెన్‌హౌస్ అంకుర ప్రాజెక్టులు ప్రారంభం

నిట్‌క్యాంపస్, న్యూస్‌టుడే: వరంగల్ జాతీయ సాంకేతిక సంస్థ(ఎన్‌ఐటీ) ఆవిష్కరణల సమాహార కేంద్రం(సీఐఐ) ఆధ్వర్యంలో విద్యార్థుల్లో అంకుర ఆవిష్కరణలు ప్రోత్సహించేందుకు ఓపెన్‌హౌస్ ఈవెంట్‌లో భాగంగా ఓపెన్ ఇన్నోవేషన్ ప్లాట్‌ఫాం, సైనెక్స్ ఓఎస్(ఆపరేటింగ్ సిస్టం) అంకుర ప్రాజెక్టులను నిట్ సంచాలకుడు ఆచార్య ఎన్.వి.రమణారావు ప్రారంభించారు. కొవిడ్ విపత్కర పరిస్థితుల్లో భవిష్యత్తులో సానుకూల ఫలితాలు రాబట్టడానికి సైబర్ ఆధారిత పరిశోధనలపై నిట్‌లోని సీఐఐ విభాగం 20కి పైగా ప్రాజెక్టులను అభివృద్ధి చేసింది. రాబోయే కొద్ది నెలల్లో మార్కెట్‌లో అందుబాటులోకి రానున్నాయి. నిట్ డైరెక్టర్ మాట్లాడుతూ అంకుర ఆలోచనలు ఆవిష్కరణకు అవసరమైన సహకారాన్ని ఆత్మనిర్భర్ అభియాన్‌లో భాగంగా వరంగల్ నిట్ అందిస్తుందన్నారు. నిట్ సీఐఐ విభాగం ఇన్‌ఛార్జి ఆచార్య శ్రీహరిరావు మాట్లాడుతూ సాంకేతిక విద్యార్థుల్లో సాంకేతిక ఆలోచనలను ఆవిష్కరించి స్టార్టప్‌లు, పేటెంట్‌లు సాధించేలా వారికి హ్యాకథాన్, మేకథాన్, ఓపెన్‌హౌస్, వర్క్‌షాపులు నిర్వహించి ప్రోత్సహిస్తున్నట్లు చెప్పారు. అనంతరం విద్యార్థులు తాము రూపొందించిన సైబర్ సెక్యూరిటీకి సంబంధించిన బగ్‌క్లెమ్, మోనాడ్ స్టార్టప్‌ల గురించి వివరించారు. కార్యక్రమాన్ని నిట్ విద్యార్థులు ఆన్‌లైన్‌లో వీక్షించారు.



తాము రూపొందించిన ప్రాజెక్టు గురించి వివరిస్తున్న విద్యార్థులు

ఈనాడు
epaper.eenadu.net

కొత్త కొలువులు..



రోబోటిక్స్‌లోనూ

రానున్నదంతా రోబో యుగమే. సాంకేతిక విద్యలో ఈ పరిజ్ఞానానికి ప్రాధాన్యం ఎంతగానో పెరుగుతోంది. ఈ క్రమంలో ఎన్‌ఐటీ విద్యార్థులు రోబోటిక్స్‌పై రంగంలో కూడా అడుగు పెడుతున్నారు. ఈసారి ఉద్యోగాల ఎంపికలో రెండు రోబోటిక్స్ కంపెనీలు వచ్చాయి. కొవిడ్ నేపథ్యంలో అనేక ఆసుపత్రుల్లో హ్యూమనాయిడ్ రోబోల వాడకం మన దేశంలో కూడా పెరిగింది. ఈ క్రమంలో నిట్‌లో ఈ కొలువులకు కూడా ప్రాధాన్యం పెరుగుతోంది.

ఈనాడు, వరంగల్: మొబైల్ ఫోన్‌లో ఒక వస్తువు గురించి ఆన్‌లైన్‌లో వెతుకుతాం. మర్నాడే మన ఫేస్‌బుక్ పేజీలో ఆ వస్తువు ప్రకటనలు కుప్పలు తెప్పలుగా ప్రత్యక్షమవ్వడం మనకు ఆశ్చర్యం కలిగిస్తుంది. డేటా అనలటిక్స్, మెషిన్ లెర్నింగ్, ఇంటర్నెట్ ఆఫ్ థింగ్ (ఐఓటీ), ఆర్టిఫిషియల్ ఇంటలిజెన్స్ (ఏఐ) లాంటి సాంకేతిక పరిజ్ఞానంతో కంపెనీలు మన వివరాలు తీసుకొని అందుకు అనుగుణంగా ప్రకటనలు ఇస్తుంటాయి. అయితే ఈ తరహా కొత్త కొలువులు పెరుగుతున్నాయి. వరంగల్ జాతీయ సాంకేతిక విద్యా సంస్థ (నిట్)లో ఈ ఏడాది ప్లేస్‌మెంట్లలో ఈ తరహా కొత్త కొలువులు పరిస్తున్న విద్యార్థుల సంఖ్య పెరిగింది. ఆన్‌లైన్ వ్యాపారం చేస్తున్న కంపెనీల్లో డేటా అనలిటిక్స్ ద్వారా తమ వ్యాపారాన్ని విస్తరించుకొంటాయి. ఈ క్రమంలో ఆ విభాగాల్లో ఉద్యోగాలు కూడా పెరుగుతున్నాయి. ఒకప్పుడు సాఫ్ట్‌వేర్ కొలువులు అనగానే సీ, సీ ప్లస్ ప్లస్, జావా, డీబీఎంఎస్ నైపుణ్యాలు ఉన్న వారిని కంపెనీలు నియమించుకొనేవి. క్రమంగా కొత్త సాంకేతికత ప్రాధాన్యం పెరుగుతోంది. మెషిన్ లెర్నింగ్, పైథాన్ ప్రోగ్రామింగ్, ఐఓటీ, బ్లాక్ చైన్ టెక్నాలజీ, కృత్రిమ మేధ.. లాంటి సాంకేతిక పరిజ్ఞానాన్ని విస్తృతంగా వినియోగిస్తున్నారు. బ్యాంకింగ్ రంగం నుంచి మొదలుకొంటే ఈ కామర్స్ వాణిజ్యం వరకు దాదాపు అన్ని రంగాల్లో వీటికి ప్రాధాన్యత పెరుగుతోంది. ఈ క్రమంలో ఆ నైపుణ్యాలు కలిగిన విద్యార్థులను కంపెనీలు ఎంపికకు ఎంపిక చేసుకుంటున్నాయి. ఈ సారి యూజీ, పీజీ కలిపి వరంగల్ నిట్‌లో సుమారు 620 మంది క్యాంపస్ సెలక్షన్ కాగా, ఇందులో డేటా అనలటిక్స్ విద్యార్థులే 70 మంది ఉన్నారని ప్లేస్‌మెంట్ అధికారి, కె.కిరణ్‌కుమార్ తెలిపారు.



నిట్‌లో ప్రత్యేక క్లబ్

గతేడాది నుంచి కొవిడ్ విజృంభణ వల్ల అనేక రంగాలపై తీవ్ర ప్రభావం పడింది. అన్ని విద్యాసంస్థలతో పాటు నిట్ కూడా నెలల తరబడి మూతపడింది. ఆన్‌లైన్ తరగతులు ప్రారంభమయ్యాక ప్లేస్‌మెంట్లు కూడా క్రమంగా పుంజుకుంటున్నాయి. ఆన్‌లైన్ ప్లేస్‌మెంట్ విధానం ద్వారా బహుళ జాతి కంపెనీలు నిట్ విద్యార్థులకు ఆకర్షణీయమైన ప్యాకేజీలు ఇచ్చి ఎంపిక చేస్తున్నాయి. క్యాంపస్‌లో కార్యశాలలు లేకపోవడంతో మార్కెట్‌లో పరిస్థితులు, సంస్థల ప్రాధాన్యాలపై విద్యార్థులకు అవగాహన కల్పించేందుకు నిట్‌లో 'బిగ్ డేటా, అనలిటిక్స్ అండ్ బ్లాక్‌చింగ్ సెల్' ఏర్పాటు చేశారు. ఒక రకంగా చెప్పాలంటే నైపుణ్యాలు పెంచేందుకు ఇదో క్లబ్ లాంటిది. క్యాంపస్ ప్లేస్‌మెంట్లలో ఎంపికైన విద్యార్థుల అనుభవాలు జూనియర్ విద్యార్థులు తెలుసుకొంటున్నారు. వారితో ముఖాముఖి నిర్వహించి వీడియోలు రూపొందించి వాటిని ఇతర విద్యార్థులకు షేర్ చేస్తున్నారు. ఆన్‌లైన్ తరగతులు వినే విద్యార్థులు కూడా ప్లేస్‌మెంట్ల కోసం సిద్ధమయ్యే క్రమంలో ఈ వీడియోలు ఉపకరించేలా తీర్చిదిద్దారు. క్యాంపస్ ప్లేస్‌మెంట్లకు మరో మూడు నెలల సమయం మిగిలి ఉండగానే బీటెక్, ఎంటెక్‌లో కలిపి 80 శాతం విద్యార్థులకు కొలువులు దక్కాయి. బీటెక్ బ్రిడ్జ్‌లతో విద్యార్థులిద్దరికీ రూ. 52 లక్షల వార్షిక వేతనంతో మంచి ప్యాకేజీ దక్కింది. మొత్తం 620 విద్యార్థుల్లో 130 మందికి రూ. 20 లక్షలపైన ప్యాకేజీ దక్కింది.



ప్లేస్‌మెంట్లు ఇలా

ఎంటెక్	బీటెక్	
400	700	మొత్తం విద్యార్థులు
150	500	కొలువు సాధించిన వారు

అత్యధిక ప్యాకేజీ: రూ. 52 లక్షలు

రూ. 10 లక్షల ప్యాకేజీ పొందిన వారు 400

రూ. 20 లక్షల ప్యాకేజీ పొందిన వారు 130

ఎన్‌ఐటీలో బీటెక్ బ్రాంచ్‌లు 8

ఎంటెక్ బ్రాంచ్‌లు 28

ఇతర కోర్సులన్నీ కలిపి మొత్తం పీజీ బ్రాంచ్‌లు 36



ఈ విభాగాలకు ఆదరణ పెరుగుతోంది

- ఆచార్య ఎన్.వి.రమణారావు, సంచాలకుడు, ఎన్‌ఐటీ



ఈ మధ్య కంపెనీలు కృత్రిమ మేధ, త్రీడీ ప్రింటింగ్, డేటా అనలిటిక్స్, రోబో తదితర విభాగాల్లో నైపుణ్యం ఉన్న విద్యార్థులను ఎంపిక చేసుకుంటున్నాయి. ఈ క్రమంలో విద్యార్థులు తమ సబ్జెక్టులతోపాటు ఈ థర్డ్ ఏరియాలపై దృష్టిసారించేలా మేం ప్రత్యేక దొరవ తీసుకుంటున్నాం. స్టూడెంట్ క్లబ్ పెట్టి ప్రాజెక్టులు చేయిస్తున్నాం.

నైపుణ్యాలు నేర్పిస్తున్నాం

- డా. కె.కిరణ్‌కుమార్, ప్లేస్‌మెంట్ విభాగాధికారి



గత ఏడాదిగా కొవిడ్ ప్రభావం ఉన్న ప్పటికీ ఆన్‌లైన్‌లో క్యాంపస్ ఎంపికలు జరుగుతున్నాయి. బీటెక్‌లో దాదాపుగా గతేడాదితో సమానంగా ఎంపికలు జరిగాయి. మరో మూడు నెలల సమయం ఉంది కాబట్టి మరికొన్ని కంపెనీలు విద్యార్థులను ఎంపిక చేసుకుంటున్నాయి.

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7	M&M	Dr. G. Brahma Raju	Assistant Professor	8332969389	gbraju@nitw.ac.in
8	CHEMICAL	Dr. Sampath Kumar	Assistant Professor	8497968889	pskr@nitw.ac.in
9	CSE	Dr. R. Padmavathy	Associate Professor	9440173819	rpadma@nitw.ac.in
10	BIOTECH	Dr. Priya	Assistant Professor	9167474235	priyap@nitw.ac.in
11	MATHEMATICS	Dr. Y. Srinivasa Rao	Assistant Professor	9494776866	ysr@nitw.ac.in
12	PHYSICS	Dr. Jayalakshmi	Assistant Professor	8332969477	jayalakshmiv@nitw.ac.in
13	CHEMISTRY	Dr. S. Nagarajan	Assistant Professor	9940430715	snagarajan@nitw.ac.in
14	SOM	Dr.P.R. C. Gopal	Assistant Professor	9843716992	prcgopal@nitw.ac.in
15	HUMANITIES&SOCIAL SCIENCES	Dr. Madhumathi P.	Assistant Professor	9943401929	madhumathi.p@nitw.ac.in
16	Centre for Career Planning & Development	Dr. K. Kiran Kumar	Head, (CCPD)	9490165357	ccpd_hod@nitw.ac.in
17	General Coordinator-I	Dr. S. Vidyasagar	Associate Professor	9490164976 8332969463	vidyasagars@nitw.ac.in
18	General Coordinator -II	Dr. T. Rahul	Assistant Professor, SOM	8978264848	rahult@nitw.ac.in

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

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PART - II

ANNUAL ACCOUNTS AND AUDIT REPORT

2020- 2021



SCHEDULE : 23

SIGNIFICANT ACCOUNTNG POLICIES

1. **BASIS FOR PREPARATION OF ACCOUNTS:**

   The Accounts are prepared under the Historical Cost Convention unless otherwise stated and generally on the accrual method of accounting.

2. **REVENUE RECOGNITION**

   2.1 All revenues and Expenses are accounted on accrual basis including interest received on bank deposits and government grants.

   2.2 Rent collected from Post Office and Shops are accounted on Cash Basis.

3. **FIXED ASSETS AND DEPRECIATION**

   3.1 Fixed assets are stated at cost of acquisition including inwards freight, duties and taxes and incidental and direct expenses related to acquisition, installation and commissioning.

   3.2 During the year, the Institute capitalized an amount of Rs.158.19 crores (including Rs.14.01 crores transferred from work in progress account) out of the advances given to CPWD and balance of Rs.119.99 Crores available in work in progress.

   3.3 Fixed assets are valued at cost. Depreciation on fixed assets during the year has been provided in the books of accounts on straight line method at the rates prescribed by MHRD.

   3.4 Further arrears of depreciation up to 2019-20 amounting to Rs.128.29 crores for the years from 2003-04 to 2019-20 was provided in the books of accounts during the year and shown under prior period expenses as per the AG audit observation on annual accounts during the year 2019-20.

4. **STOCKS:** Expenditure on purchase of chemicals, glassware, publications and other stores is accounted as revenue expenditure, except that the value of closing stocks held on 31st March is set up as inventories by reducing the

corresponding Revenue Expenditure on the basis of information obtained from Departments. The closing stock as at 31st March is NIL.

5. **RETIREMENT BENEFITS**
   Provision towards retirement benefits has not been made.

6. **INVESTMENTS: - Nil -**

7. **Earmarked / Endowment Funds:** During the year, the Institute has received an amount of Rs.13.54 crores towards various Earmarked / Endowment Funds and expenditure of Rs.11.38 crores was spent during the year.

8. **CORPUS FUND / OTHER FUNDS.** The closing balance of Corpus / Capital fund to the end of March-2021 is Rs.650.64 crores.

9. **GOVERNMENT AND UGC GRANTS**
   9.1 Government Grants and UGC Grants are accounted on realization basis. However, where a sanction for release of grant pertaining to the financial year is received before 31st March and the grant is actually received in the next financial year, the grant is accounted on accrual basis and an equal amount is shown as recoverable from the Grantor.
   9.2 To the extent utilized towards capital expenditure, (on accrual basis) government grants and grants from UGC are transferred to the Capital Fund.
   9.3 Government and UGC grants for meeting Revenue Expenditure (on accrual basis) are treated, to the extent utilized, as income of the year in which they are realized.
   9.4 Unutilized grants (including advances paid out of such grant) are carried forward and exhibited as a liability in the Balance sheet

10. **INVESTMENTS OF EARMARKED FUNDS AND INTEREST INCOME ACCRUED ON SUCH INVESTMENTS:**

The Institute has made investments separately and interest on such earmarked funds is Rs.271.70 lacs earned during the year.

11. **SPONSORED PROJECTS:** During the year, an amount of Rs.8.28 crores were received against various research scheme from various agencies and incurred an amount of Rs.13.63 crores towards execution of various research projects.

12. **INCOME TAX**

The income of the Institution is exempt from Income Tax under Section 10(23c) of the Income Tax Act 1961. No provision for tax is therefore made in the accounts.

13. LAND:

Total land under the control of NITW is 248 acres. Out of the total land available with the Institute, land given on lease to the following departments / entities.

a) Land admeasuring 4000 Sq. mtrs leased to TSNPDCL, Warangal
b) Land admeasuring 1446 Sq. mtrs leased to DGM, BSNL, Warangal
c) Land admeasuring 1255 Sq. mtrs leased to SBI, NIT Branch.
d) Land admeasuring 816 Sq. mtrs leased to Superintendent of Post Office, Hanamakonda
e) Land admeasuring 1750 Sq. mtrs leased to Commissioner, GWMC.
f) Land admeasuring 510.26 Sq. mtrs leased to District Educational Officer, Warangal
g) Balance of land available with NIT, Warangal

SCHEDULES 24: CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS:

ITEMS TO BE COVERED IN THIS SCHEDULE ARE LISTED BELOW

A. CONTINGENT LIABILITIES:

1.	Claim against the Entity not acknowledged as debts	--- Nil ---
2.	Guarantees and Letters of credit outstanding	--- Nil ---
3.	Other items for which the entity is contingently liable	--- Nil ---

B. **NOTES ON ACCOUNTS**:

1.	Commitments on Capital Account not provided for	This would arise in terms of contracts / arrangements in terms of which amounts would have to be paid for acquisitions / constructions of assets as and when they take place. The amount, net of advances is required to be disclosed -- Nil ---
2.	Educational institutions should host following information in public domain so as to enable all other stakeholders to have a bird's eye view of educational institutions' capacity and capability	
(i)	No of students	6102
(ii)	No of teachers	329
(iii)	Collection on account of building fund and expenditure thereof	Nil
(iv)	Collection for sports activities and expenditure thereof	Amount Collected : Rs.24,10,400/- Expenditure incurred : Rs.7,22,909/-
(v)	Collection for co-curricular activities and expenditure thereof	Amount Collected : Rs.66,050/- Expenditure incurred : Rs.300/-

(vi)	Collection on account of development charges and expenditure thereon	Nil
(vii)	Collection for medical expenses and expenditure thereon	Amount Collected : Rs.24,79,000/- Expenditure incurred : Rs.5,06,633/-
(viii)	Compliance with statutory dues like EPF and ESI	Complied
(ix)	Salary structure of teachers	

The above information can also be calculated on per student basis.

3. Related Party Disclosures: --- No transactions were taken place during the financial year with related party. --

NATIONAL INSTITUTEOF TECHNOLOGY, WARANGAL
CONSOLIDATED BALANCE SHEET AS AT 31-03-2021

(Amount in Rupees)

SOURCES OF FUNDS	SCHEDULE	Current Year	Previous Year
Corpus / Capital Fund	1	6536016324	7226772947
Designated / Earmarked / Endowment Funds	2	977921270	927831399
Current Liabilities & Provisions	3	888623868	1038612983
TOTAL	0	**8402561462**	**9193217329**
APPLICATION OF FUNDS			
Fixed Assets	4		
-- Tangible Assets		4403002761	2918003951
-- Intangible Assets		19091933	46165027
-- Capital Work in progress		0	1340065228
Investments	5		
-- Long Term		0	0
-- Short Term		743795144	708224992
Investments - Others	6	0	0
Current Assets	7	2950049786	2450687260
Loans, Advanes & Deposits	8	286621838	1730070871
TOTAL		**8402561462**	**9193217329**
Significant Accounting Policies	23		
Contingent Liabilities and Notes to Accounts	24		

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

SCHEDULES FORMING PART OFBALANCE SHEET AS AT 31-03-2021

SCHEDULE 1- CORPUS FUND / CAPITAL FUND	COLLEGE	RESEARCH	TOTAL
Balance as at the beginning of the year	7190765797	36007150	7226772947
Add: Contributions towards Corpus / Capital Fund	60000000	0	60000000
Add: Contributions from TLC (Research)	32400000	0	32400000
Add: Grants from UGC, GOI and State Government to the			0
extent utilized for capital expenditure	0	0	0
Add: Assets purchased out of Earmarked Funds	0	0	0
Add: Assets purchased out of Sponsored Projects where			0
ownership vests in the institution	0	0	0
Add: Assets Donated / Gifts Received	0	0	0
Add: Other Addition	103207925	0	103207925
Add: Excess of Income over expenditure transferred from			0
income & Expenditure Account	-880819490	-5545058	-886364548
	6505554232	30462092	6536016324
Ded: Unutilized Capital Grants	0	0	0
Ded: Deficit of Incover over Expenditure transerred from			
income & Expenditure Account & PF Withdrawl	0	0	0
Balance at the year end	**6505554232**	**30462092**	**6536016324**

SCHEDULE 3 - CURRENT LIABILITIES & PROVISIONS	COLLEGE	RESEARCH	TOTAL
A. CURRENT LIABILITIES			
1. Deposits from staff			
--- Security Deposit for Staff Quarters	64794	0	64794
2. Deposits from students			
--- Lab and Library Deposit	26760009	0	26760009
--- Hostel Caution Money Deposit	446664	0	446664
--- NIT Co-operative Stores Deposit	4842570	0	4842570
3. Sundry Creditors			
a) For Goods & Services	0	0	0
b) Others	0	0	0
4. Deposits - others (including EMD, Security deposit)			
--- EMD / Security Deposit	42477767	0	42477767
--- Other Deposit	8759208	0	8759208
--- Deposit for Rent and other service charges	2000	0	2000
--- ICC R&D Account	11000	0	11000

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

SCHEDULES FORMING PART OFBALANCE SHEET AS AT 31-03-2021

5. Statutory Liabilities(GPF, TDS, WC TAX, CPF, GIS, NPS):			
a) Overdue	0	0	0
b) Others			
--- Sales Tax	294218	0	294218
--- Profession Tax	463402	0	463402
--- Income Tax	1456000	0	1456000
--- LIC (SSS)	36	0	36
--- GLIS	-11595	0	-11595
--- Staff Contribution for NPS Scheme	0	0	0
--- Labour Commissioner (CESS)	481795	0	481795
--- Provident Fund Subscription	27623	0	27623
--- EPF	3750	0	3750
--- Seignorage Charges	293694	0	293694
--- Statutory Liabilities	0	19409781	19409781
--- GST - TDS	2316000	0	2316000
--- ICC - GST	3065837	0	3065837
7. Other Current Liabilities:			
a) Salaries	0	0	0
b) Receipts against sponsored projects	0	154400881	154400881
c) Recpt against sponsored fellowships & scholarships	353846	0	353846
d) Unutilised Grants	481140532	0	481140532
e) Grants in advance	0	0	0
f) Other funds	0	0	0
g) Other liabilities	0	0	0
--- Other Liabilities - Advances / FDD / LC Suspense	0	0	0
--- Outstanding Liabilities	90368127	51195929	141564056
TOTAL (A)	**663617277**	**225006591**	**888623868**
B. PROVISIONS			
1. For Taxation	0	0	0
2. Gratuity	0	0	0
3. Superannuation/ Pension	0	0	0
4. Accumulated Leave Encashment	0	0	0
5. Trade Warranties/ Claims	0	0	0
6. Others (Specify)	0	0	0
Security Services	0	0	0
TOTAL (B)	0	0	0
TOTAL (A+B)	**663617277**	**225006591**	**888623868**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

SCHEDULES FORMING PART OFBALANCE SHEET AS AT 31-03-2021

SCHEDULE 3 (c)- UNUTILISED GRANTS FROM UGC, GOVERNMENT OF INDIA AND STATE GOVERNMENTS

INVESTMENTS FROM EARMARKED/ ENDOWMENT FUNDS	COLLEGE	RESEARCH	TOTAL
A. Plan Grants: Government of India			
Balance B/f	584348457	0	584348457
Add: Receipts during the year	60000000	0	60000000
Total(a)	644348457	0	644348457
Less: Refunds	0	0	0
Less: Utilized for Revenue Expenses	0	0	0
Less: Utilized for Capital Expenses	163207925	0	163207925
Less: Prior period adjustment	0		0
total(b)	163207925	0	163207925
Unutilized carried forward (a-b)	481140532	0	481140532
B. UGC Grants: Plan			
Balance B/f	0	0	0
Receipts during the year	0	0	0
Total(a)	0	0	0
Less: Refunds	0	0	0
Less: Utilized for Revenue Expenses	0	0	0
Less: Utilized for Capital Expenses	0	0	0
total(b)	0	0	0
Unutilized carried forward (a-b)	0	0	0
C. UGC Grants Non Plan			
Balance B/f	0	0	0
Receipts during the year	0	0	0
Total(a)	0	0	0
Less: Refunds	0	0	0
Less: Utilized for Revenue Expenses	0	0	0
Less: Utilized for Capital Expenses	0	0	0
total(b)	0	0	0
Unutilized carried forward (a-b)	0	0	0

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

SCHEDULES FORMING PART OFBALANCE SHEET AS AT 31-03-2021

D. Grants from State Govt.			
Balance B/f	0	0	0
Receipts during the year	0	0	0
Total(a)	0	0	0
Less: Refunds	0	0	0
Less: Utilized for Revenue Expenses	0	0	0
Less: Utilized for Capital Expenses	0	0	0
Less: Prior period adjustment	0		0
total(b)	0	0	0
Unutilized carried forward (a-b)	0	0	0
Grand Total (A+B+C+D)	**481140532**	**0**	**481140532**

SCHEDULE - 4 - FIXED ASSETS	**COLLEGE**	**RESEARCH**	**TOTAL**
Land	1	0	1
Site Development	0	0	0
Buildings	3838933160	0	3838933160
Roads & Bridges	12345499	0	12345499
Tubewells & Water Supply	0	0	0
Sewarage & Drainage	0	0	0
Electrical Installation and Equipment	34000	0	34000
Plant & Machinery	0	0	0
Scientific & Laboratory Equipment	472372038	0	472372038
Office Equipment	0	0	0
Audit Visual Equipment	0	0	0
Computers & Peripherals	16210833	0	16210833
Furniture, Fixtures & Fittings	52485770	0	52485770
Vehicles	1631023	0	1631023
Lib Books & Scientific Journals	8990436	0	8990436
Small Value of assets	1	0	1
Tota (A)	4403002761	0	4403002761
Capital Work in progress (B)	0	0	0

Intangible Assets	**COLLEGE**	**RESEARCH**	**TOTAL**
Computer Software	751273	0	751273
E-Journals	18340660	0	18340660
Patents	0	0	0
Total (C)	19091933	0	19091933
Grand Total(A+B+C)	4422094694	0	4422094694
PREVIOUS YEAR			

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL
SCHEDULES FORMING PART OFBALANCE SHEET AS AT 31-03-2021

SCHEDULE 5 - INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS	COLLEGE	RESEARCH	TOTAL
1. In Central Government Securities	0	0	0
2. In State Government Securities	0	0	0
3. Other Approved Securities	0	0	0
4. Shares	0	0	0
5. Debentures and Bonds	0	0	0
6. Term Deposits with Banks	683795144	0	683795144
7. Others (to be specified)	60000000	0	60000000
TOTAL	**743795144**	**0**	**743795144**

SCHEDULE 6 - INVESTMENTS - OTHERS	COLLEGE	RESEARCH	TOTAL
1. In Central Government Securities	0	0	0
2. In State Government Securities	0	0	0
3. Other Approved Securities	0	0	0
4. Shares	0	0	0
5. Debentures and Bonds	0	0	0
6. Others (to be specified)	0	0	0
TOTAL	**0**	**0**	**0**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL
SCHEDULES FORMING PART OFBALANCE SHEET AS AT 31-03-2021

SCHEDULE 7 - CURRENT ASSETS	COLLEGE	RESEARCH	TOTAL
1. Stock:			
a) Stores and Spares			
--- Stores and Spares	0	0	0
--- Loose Tools	0	0	0
--- Publications	0	0	0
--- Laboratory chemicals, consumables and glassware	0	0	0
--- Building Material	0	0	0
--- Electrical Material	0	0	0
--- Stationery	0	0	0
--- Water supply material	0	0	0
2. Sundry Debtors:			
a) Debts outstanding for a period exceeding six months	0	0	0
b) Others			
--- LC Suspense	3386798	0	3386798
--- FDD's	19955477	0	19955477
--- Fee Receivable	0	0	0
--- Plan Grant and Non Plan Grant Receivable	0	0	0
3. Cash and Bank Balances			
a) Cash Balance in hand(incl cheques / drafts and imprest)			
- Main Cash Balance	0	0	0
- Petty Cash Balance	0	0	0
- Imprest with department	330000	0	330000
b) With Scheduled Banks:			
- In Current Accounts	479727028	0	479727028
- In Term Deposit Accounts - **STDR**	2270129214	142490112	2412619326
- In Savings Accounts	638058	33393099	34031157
c) With Non-Scheduled banks:			
- In Current Accounts	0	0	0
- In Term Deposit Accounts	0	0	0
- In Savings Accounts	0	0	0
4. Post Office- Savings Accounts	0	0	0
TOTAL	**2774166575**	**175883211**	**2950049786**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL
SCHEDULES FORMING PART OFBALANCE SHEET AS AT 31-03-2021

SCHEDULE 8 - LOANS, ADVANCES & DEPOSITS	COLLEGE	RESEARCH	TOTAL
1. Advances to employees (Non-interest bearing):			
a) Salary	0	0	0
b) Festival	0	0	0
c) LTC	5814431	0	5814431
d) Others (to be specified)	0	0	0
2. Long Term Advances to employees (Interest bearing)			
a) Vehicle loan	0	0	0
b) Home Loan	0	0	0
c) Others (to be specified)	0	0	0
3. Advances and other amounts recoverable in cash or in kind or for value to be received:			
a) On Capital Account	0	0	0
b) To Suppliers	0	0	0
c) Others	0	0	0
4. Prepaid Expenses			
a) Insurance	0	0	0
b) Other Expenses	0	0	0
5. Deposits			
a) Telephone	27200	0	27200
b) Lease Rent	0	0	0
c) Electricity	10429651	0	10429651
d) AICTE, if applicable	0	0	0
e) Others(to be specified)			
--- Deposit with Other Department (As per Annexure)	457990	0	457990
--- Other Dept / Contractors including CPWD	157689789	0	157689789
6. Income Accrued:			
a) On Investments from Earmarked/ Endowment Funds	25802956	0	25802956
b) On Investments- Others	6664614	0	6664614
c) On Loans and Advances	0	0	0
d) Others (includes income due unrealized)	0	0	0
7. Other Current Assets receivable from UGC / sponsored projects			
a) Debit balances in Sponsored Projects	149735	79585472	79735207
b) Debit balances in Sponsored Fellowship & Scholarship	0	0	0
c) Grants Recoverable	0	0	0
d) Other receivables from UGC	0	0	0
8. Claims Receivable	0	0	0
TOTAL	**207036366**	**79585472**	**286621838**

NATIONAL INSTITUTEOF TECHNOLOGY, WARANGAL
CONSOLIDATED INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2021

Income	SCHEDULE	Current Year	Previous Year
Academic Receipts	9	406204662	422359019
Garnts / Subsidies	10	1997272000	2201800000
Income from Investments	11	68473922	88073089
Interest Earned	12	0	0
Other Income	13	24448458	71629672
Prior Period Income/Adjustment	14	0	0
TOTAL (A)		**2496399042**	**2783861780**
EXPENDITURE			
Staff Payments & Benefits (Establishment Expenses)	15	1328730613	1243142641
Academic Expenses	16	361420284	315144341
Administrative and General Exp	17	112413209	164011892
Transportation expenses	18	1990051	2151224
Reparis & Maintenance	19	84190537	116628323
Finance Cost	20	0	0
Depreciation	4	203452947	11454280
Other Expenses	21	7648208	0
Prior Period Expenses	22	1282917741	0
TOTAL (B)		**3382763590**	**1852532701**
Balance being excess of Income over Expenditure (A-B)		**-886364548**	931329079
Transfer to / from Designated Fund		0	0
Building Fund		0	0
Others if Any		0	0
Balance being surplus (Deficit) carried to General Fund		**-886364548**	**931329079**
Notes on Accounts	22		

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

SCHEDULES FORMING PART OF CONSOLIDATED INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR 2020 - 21

SCHEDULE 9- ACADEMIC RECEIPTS

FEE FROM STUDENTS	COLLEGE	RESEARCH	TOTAL
A. Academic			
1.Tution fee	400249862	0	400249862
2. Admission fee	5413750	0	5413750
3. Enrolment fee	0	0	0
4. Library Admission fee	0	0	0
5. Laboratory fee	0	0	0
6. Art & Craft fee	0	0	0
7. Registration fee	0	0	0
Foreign Students	0	0	0
PG Students	0	0	0
8. Syllabus fee	0	0	0
9. College Resources Fund	0		0
TOTAL (A)	**405663612**	**0**	**405663612**
B. Examinations			
1. Admission Test fee	0	0	0
2. Annual Examination fee	0	0	0
3. Marksheet, Certificate fee	0	0	0
4. Entrance Examination Fee	0	0	0
TOTAL (B)	**0**	**0**	**0**
C. Other fees			
1. Identity Card fee	541050	0	541050
2. Fine/ Miscellaneous fee	0	0	0
3. Medical fee	0	0	0
4. Transportation fee	0	0	0
5. Hostel fee	0	0	0
TOTAL (C)	**541050**	**0**	**541050**
D. Sale of Publications			
1. Sale of Admission forms	0	0	0
2. Sale of Syllabus and Question paper, etc.	0	0	0
3. Sale of Prospectus including admission forms	0	0	0
TOTAL (D)	**0**	**0**	**0**
E.Other Academic Receipts			
1. Registration fee for workshops, programmes	0	0	0
2. Registration fees (Academic Staff College)	0	0	0
TOTAL (E)	**0**		**0**
GRAND TOTAL (A+B+C+D)	**406204662**	**0**	**406204662**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

SCHEDULES FORMING PART OF CONSOLIDATED INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR 2020 - 21

SCHEDULE 10 - GRANTS / SUBSIDIES (IRREVOCABLE GRANTS RECEIVED)	COLLEGE	RESEARCH	TOTAL
Balance B/f	0	0	0
Add: Receipts during the year	1997272000	0	1997272000
Total	1997272000	0	1997272000
Less: Refunded to UGC	0	0	0
Balance	1997272000	0	1997272000
Less: Utilized for Capital Expenditure (A)	0	0	0
Balance	1997272000	0	1997272000
Less: Utilized for Revenue Expenditure (B)	1997272000	0	1997272000
TOTAL	0	0	0

SCHEDULE 11- INCOME FROM INVESTMENTS	COLLEGE	RESEARCH	TOTAL
1. Interest			
a) On Govt. Securities	0	0	0
b) Other Bonds/ Debentures	0	0	0
2. Interest on Term Deposits	66370772	2103150	68473922
3. Income accrued but not due on Term Deposits / Interest bearing advances to employees	0	0	0
4. Interest on Savings Bank Accounts	0	0	0
4. Others (Specify)	0	0	0
TOTAL	**66370772**	**2103150**	**68473922**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

SCHEDULES FORMING PART OF CONSOLIDATED INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR 2020 - 21

SCHEDULE 12- INTEREST EARNED

Particulars	COLLEGE	RESEARCH	TOTAL
1. On Savings Accounts with Scheduled Banks	0	0	0
2. On Loans			
a) Employees / Staff	0	0	0
b) Others	0	0	0
3. On Debtors and Other Receivables	0	0	0
TOTAL	**0**	**0**	**0**

SCHEDULE 13- OTHER INCOME

A.Income from Land & Building	COLLEGE	RESEARCH	TOTAL
1. Hostel Room Rent	0	0	0
2. License fee	850287	0	850287
3. Hire Charges of Auditorium/Play ground/Convention Centre,etc.	0	0	0
4. Electricity Charges recovered	1595472	0	1595472
5. Water Charges recovered	155913	0	155913
Total (A)	**2601672**	**0**	**2601672**
B. Sale of Institute's Publications	**0**	**0**	0
C. Income from from holding events			
1.Gross Receipts from annual function/sports caenival	0	0	0
Less : Direct Expenditure incurred on the annual function/sports carnival	0	0	0
2. Gross Receipts from fetes	0	0	0
Less : Direct Expenditure incurred on the fetes	0	0	0
3. Gross Receipts for educational tours	0	0	0
Less : Direct Expenditure incurred on the tours	0	0	0
4. Others (to be specified and separately disclosed)	0	0	0
TOTAL(C)	**0**	**0**	**0**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

SCHEDULES FORMING PART OF CONSOLIDATED INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR 2020 - 21

D. Others			
1. Income from Consultancy	2202532	0	2202532
2. RTI Fees	0	0	0
3. Income from Royalty	0	0	0
4. Sale of application form (recruitment)	0	0	0
5. Misc. receipts (Sale of tender form, waste paper, etc.)	0	0	0
6. Profit on Sale/ Disposal of Assets:	0	0	0
a) Owned Assets	0	0	0
b) Assets acquired out of grants, or received free of cost	0	0	0
7. Grants / Donations from Institutions, Welfare Bodies and International Organizations	0	0	0
8. Others			
--- Rent from Guest House	184300	0	184300
--- Other Miscelleneous Income	19459954	0	19459954
TOTAL(H)	**21846786**	**0**	**21846786**
GRAND TOTAL (A+B+C+D)	**24448458**	**0**	**24448458**

SCHEDULE 14- PRIOR PERIOD INCOME

Particulars	**COLLEGE**	**RESEARCH**	**TOTAL**
1. Academic Receipts	0	0	0
2. Income from Investments	0	0	0
3. Interest Income	0	0	0
4. Income & Expenditure Appropriation A/c (Prior Period Adjustment)	0	0	0
5. Other Income	0	0	0
TOTAL	**0**	**0**	**0**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

SCHEDULES FORMING PART OF CONSOLIDATED INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR 2020 - 21

SCHEDULE 15- STAFF PAYMENTS & BENEFITS	COLLEGE	RESEARCH	TOTAL
a) Salaries and Wages	812734218	0	812734218
b) Allowances and Bonus - Bonus for Non Teaching Staff	0	0	0
c) Contribution to Provident Fund	0	0	0
d) Contribution to Other Fund (Specify)	0	0	0
e) Staff Welfare Expenses	16482567	0	16482567
f) Retirement and Terminal Benefits	316151135	0	316151135
g) LTC facility	11234231	0	11234231
h) Medical facility	0	0	0
i) Children Education Allowance	9027030	0	9027030
j) Honorarium	0	0	0
k) Others (Specify)	0	0	0
--- Amenities to Staff & Students	0	0	0
--- EL Encashment	6489010	0	6489010
--- Overtime Allowance	0	0	0
--- Leave Encashment	10472729	0	10472729
--- Arrears of Salary	83581596	0	83581596
--- Daily wage / consolidated / Outsourcing charges	62558097	0	62558097
TOTAL	**1328730613**	**0**	**1328730613**

SCHEDULE 16- ACADEMIC EXPENSES	COLLEGE	RESEARCH	TOTAL
a) Laboratory Expenses	0	0	0
b) Field work/ Participation in Conferences	0	0	0
c) Expenses on Seminars / Workshops	612212	0	612212
d) Payment to Visiting Faculty - Contingency for Spl Faculty & Allowances	11651799	0	11651799
e) Examination	0	0	0
f) Student Welfare expenses	0	0	0
g) Admission expenses	0	0	0
h) Convocation expenses	0	0	0
i) Publications	0	0	0
j) Stipend/ means-cum-merit scholarship	329055187	0	329055187
k) Subscription expenses	0	0	0
l) Others (Specify)	0	0	0
--- Professional Development Allowance	20101086	0	20101086
TOTAL	**361420284**	**0**	**361420284**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

SCHEDULES FORMING PART OF CONSOLIDATED INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR 2020 - 21

SCHEDULE 17- ADMINISTRATIVE AND GENERAL EXPENSES	COLLEGE	RESEARCH	TOTAL
A. Infrastructure			
a) Electricity and Power	31256194	0	31256194
b) Water charges	4524975	0	4524975
c) Insurance	0	0	0
d) Rent, Rates and Taxes (including property tax)	0	0	0
B. Communication	0	0	0
e) Postage and telegram	0	0	0
f) Telephone, Fax and Internet Charges	15543705	0	15543705
C. Others	0	0	0
g) Printing and Stationary (Consumption)	1187007	0	1187007
h) Travelling and Conveyance Expenses	1823913	0	1823913
i) Hospitality	0	0	0
j) Auditor's Remuneration	391800	0	391800
k) Professional Charges - Legal Charges	653375	0	653375
Balance C/d	**55380969**	**0**	**55380969**
Balance B/d	55380969	0	55380969
l) Advertisement and Publicity	1125572	0	1125572
m) Magazines and Journals	0	0	0
n) Others (Specify)	0	0	0
--- DOC - Contingent Expenses	8689839	0	8689839
--- Security Staff Salaries (Temporary Staff)	44678321	0	44678321
--- Conservancy Charges	0	0	0
--- Guest House Charges	37282	0	37282
--- Other Miscelleneous Expenses	2501226	0	2501226
--- Interest on Provident Fund	0	0	0
TOTAL	**112413209**	**0**	**112413209**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

SCHEDULES FORMING PART OF CONSOLIDATED INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR 2020 - 21

SCHEDULE 18- TRANSPORTATION EXPENSES	COLLEGE	RESEARCH	TOTAL
1. Vehicles (owned by educational institution)			
a) Running Expenses	1981068	0	1981068
b) Repairs and Maintenance	0	0	0
c) Insurance Expenses	8983	0	8983
2. Vehicles taken on Rent/ Lease	0	0	0
a)Rent/ Lease Expenses	0	0	0
3. Vehicle (Taxi) hiring expenses	0	0	0
TOTAL	**1990051**	**0**	**1990051**

SCHEDULE 19- REPAIRS AND MAINTENANCE	COLLEGE	RESEARCH	TOTAL
a) Building	84091031	0	84091031
b) Furnitures and Fixtures	0	0	0
c) Plant and Machinery	0	0	0
d) Office Equipment	99506	0	99506
e) Computers	0	0	0
f) Laboratory & scientific equipment	0	0	0
g) Audit Visual Equipment	0	0	0
h) Cleaning Material & Services	0	0	0
i) Book binding charges	0	0	0
j) Gardening	0	0	0
k) Estate Maintenance	0	0	0
l) Others (Specify)	0	0	0
TOTAL	**84190537**	**0**	**84190537**

SCHEDULE 20- FINANCE COSTS	COLLEGE	RESEARCH	TOTAL
a) Bank Charges	0	0	0
b) Others (Specify)	0	0	0
TOTAL	**0**	**0**	**0**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

SCHEDULES FORMING PART OF CONSOLIDATED INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR 2020 - 21

SCHEDULE 21- OTHER EXPENSES	COLLEGE	RESEARCH	TOTAL
a) Provision for Bad and Doubtful Debts/ Advances	0	0	0
b) Irrecoverable Balances Written-off	0	0	0
c) Grants / Subsidies to other Institutions / Organizations	0	0	0
c) Others (Specify)	0	7648208	7648208
TOTAL	**0**	**7648208**	**7648208**

SCHEDULE 22- PRIOR PERIOD EXPENSES	COLLEGE	RESEARCH	TOTAL
1. Establishment Expenses	0	0	0
2. Academic Expenses	0	0	0
3. Administrative Expenses	0	0	0
4. Transportation Expenses	0	0	0
5. Repairs & Maintenance	0	0	0
c) Other Expenses - Industrial Consultancy Centre	1282917741	0	1282917741
TOTAL	**1282917741**	**0**	**1282917741**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL
CONSOLIDATED RECEIPTS AND PAYMENTS FOR THE YEAR ENDED 31-03-2021

(Amount in Rupees)

RECEIPTS	Current Year	Previous Year	PAYMENTS	Current Year	Previous Year
I. Opening Balances:			**I. Expenses**		
a) Cash in hand			a) Establishment Expenses	1328730613	1243142641
--- Main Cash Book	0	0	b) Academic Expenses	361420284	315144341
--- Petty Cash Book	0	16	c) Administrative Expenses	112413209	164011892
--- Imprest with Departments	330000	330000	d) Transportation Expenses	1990051	2151224
--- Fee Account (Cash)	0	0	e) Repairs & Maintenance	84190537	116628323
			f) Prior Period Expenses	0	0
b) Bank Balances					
			II. Payments made against Earmarked / Endowment Funds		
--- In Current Accounts	312145233	390370500	--- Earmarked Fund	180023116	184380854
--- In Deposit Accounts	0	0	--- Endowment Fund	545560	153750
--- Savings Account (others)	95525363	122655646	--- PF Subscription		0
--- Fee Bank A/c(Current)	1732548	22944	**III. Payments against Sponsored Projects / Schemes**	168725107	293716032
--- EMD (Current)	13566	12658			
--- Kotak Mahindra Bank(Curren	2092764	0			
			IV. Payments against Sponsored Felllowships / Scholarships	0	0
II. Grants Received					
a) From Govt. of India					
--- Towards Capital Fund	60000000	77361000	**V. Investments and Deposits made**		
--- Towards Revenue Exp	1997272000	2201800000	a) Out of Earmarked / Endowments funds	80000	150000
--- L/Yr Receivable	0	0	b) Out of Own funds	0	0
b) From State Government	0	0			
c) From Other Sources - GPF	32400000	0	**VI. Term Deposits with Scheduled Banks**	1326587159	1456637121
III. Academic Receipts (As per Annexure)	410950112	476553939	**VII. Expenditure on Fixed Assets and Capital Works - in - Progress**		
			a) Fixed Assets	2944296404	87046203
IV. Receipts against Earmarked / Endowment Fund			b) Capital Work - in - Progress	0	0
--- Earmarked Fund	215921520	283164548			
--- Endowment Fund	80000	150000			
V. Receipts against Sponsored Projects / Schemes	82834602	204223717	**VIII. Other Payments including statutory payments**		
			--- Statutory Liabilities	240388421	232135020
VI. Receipts against Sponsored Fellowships and Scholarships	0	0			
			IX. Refunds and Grants	0	0

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL
CONSOLIDATED RECEIPTS AND PAYMENTS FOR THE YEAR ENDED 31-03-2021

(Amount in Rupees)

RECEIPTS	Current Year	Previous Year	PAYMENTS	Current Year	Previous Year
VII. Income on Investments from					
--- Earmarked / Endowment Funds	489252	564672	**X. Deposits and Advances**		
--- Other Investments	0	0	--- Other Deposits	10914617	29161349
			--- Advances Accounts	194697119	205555103
VIII. Interest received on					
--- Bank Deposits	68473922	88073089	**XI. Other Payments**		
--- Loand and Advances	0	0			
--- Savings Bank Account	0	0	--- Outstanding Liabilities	90070600	79651636
			--- Purchases Accounts	24363187	93122685
IX. Investment encashed	0	0	--- Electricity Deposit	0	0
			--- RS Suspense & Interest suspense	8408078	
X. Term Deposits with Scheduled Banks encashed	940844102	397113738			
XI. Other Income (including PPI)					
--- Income from L & B	1034587	2864194			
--- Other Income	18668421	14222373			
XII. Deposits & Advances			**XII. Closing Balances**		
--- Other Deposits	18609661	16919939	a) Cash in hand		
--- Advances Accounts	1640766673	218213340	--- Main Cash Book	0	0
			--- Petty Cash Book	0	0
XIII. Miscelleneous Receipts including Statutory Receipts			--- Imprest with Departments	330000	330000
--- Statutory Liabilities	239842494	233870221	--- Fee Account (Cash)	0	0
--- Miscelleneous Receipts	0	348185			
XIV. Any Other Receipts			**b) Bank Balances**		
--- Purchase Accounts	21472072	93145697	--- In Current Accounts	474707608	312145233
--- SBI Deposit for const of bldg	0	2576632	--- In Deposit Accounts	0	0
--- Outstanding Liabilities	90368127	90070600	--- Savings Account (Others)	34031157	95525363
--- Work in progress	1340065228	0	--- Fees Bank account (Current a/c)	119743	1732548
			--- EMD A/c	13939	13566
			--- Kotak Mahindra Bank (Fee a/c)	4885738	2092764
	7591932247	**4914627648**		**7591932247**	**4914627648**

NATIONAL INSTITUTEOF TECHNOLOGY, WARANGAL
BALANCE SHEET AS AT 31-03-2021

(Amount in Rupees)

SOURCES OF FUNDS	SCHEDULE		Current Year	Previous Year
Corpus / Capital Fund	**1**		6505554232	7190765797
Designated / Earmarked / Endowment Funds	**2**		977921270	927831399
Current Liabilities & Provisions	**3**		663617277	773827641
TOTAL		0	**8147092779**	**8892424837**
APPLICATION OF FUNDS				
Fixed Assets	**4**			
-- Tangible Assets			4403002761	2918003951
-- Intangible Assets			19091933	46165027
-- Capital Work in progress			0	1340065228
Investments	**5**			
-- Long Term			0	0
-- Short Term			743795144	708224992
Investments - Others	**6**		0	0
Current Assets	**7**		2774166575	2213292781
Loans, Advanes & Deposits	**8**		207036366	1666672858
TOTAL			**8147092779**	**8892424837**
Significant Accounting Policies	**23**			
Contingent Liabilities and Notes to Accounts	**24**			

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2021

SCHEDULE 1- CORPUS FUND / CAPITAL FUND	CURRENT YEAR	PREVIOUS YEAR
Balance as at the beginning of the year	7190765797	6179114975
Add: Contributions towards Corpus / Capital Fund	60000000	77361000
Add: Contributions towards Corpus / Capital Fund - TLC from Research A/c	32400000	
Add: Grants from UGC, GOI and State Government to the extent		
utilized for capital expenditure	0	0
Add: Assets purchased out of Earmarked Funds	0	0
Add: Assets purchased out of Sponsored Projects where owne-		
rship vests in the institution	0	0
Add: Assets Donated / Gifts Received	0	0
Add: Other Addition - Earlier Grant utilized for purchase of capital asset during the year	103207925	9685203
Add: Excess of Income over expenditure transferred from Inc-		
ome & Expenditure Account	-880819490	924604619
	6505554232	7190765797
Ded: Unutilised Capital Grants	0	0
Ded: Deficit of Incover over Expenditure transerred from Inco-		
me & Expenditure Account	0	0
Balance at the year end	**6505554232**	**7190765797**

SCHEDULE 3 - CURRENT LIABILITIES & PROVISIONS	CURRENT YEAR	PREVIOUS YEAR
A. CURRENT LIABILITIES		
1. Deposits from staff		
--- Security Deposit for Staff Quarters	64794	63216
2. Deposits from students		
--- Lab and Library Deposit	26760009	26968009
--- Hostel Caution Money Deposit	446664	446664
--- NIT Co-operative Stores Deposit	4842570	3219820
3. Sundry Creditors		
a) For Goods & Services	0	0
b) Others	0	0
4. Deposits - others (including EMD, Security deposit)		
--- EMD / Security Deposit	42477767	36496658
--- Other Deposit	8759208	8461601
--- Deposit for Rent and other service charges	2000	2000
--- ICC R&D Account	11000	11000

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2021

5. Statutory Liabilities(GPF, TDS, WC TAX, CPF, GIS, NPS):		
a) Overdue	0	0
b) Others		
--- Sales Tax	294218	294218
--- Profession Tax	463402	550102
--- Income Tax	1456000	1060287
--- LIC (SSS)	36	30
--- GLIS	-11595	-895
--- Staff Contribution for NPS Scheme	0	0
--- Labour Commissioner (CESS)	481795	82896
--- Provident Fund Subscription	27623	0
--- EPF	3750	7501
--- Seignorage Charges	293694	284514
--- Service / Commercial Tax	0	0
--- GST - TDS	2316000	3110566
--- ICC - GST	3065837	3828776
7. Other Current Liabilities:		
a) Salaries	0	0
b) Receipts against sponsored projects	0	0
c) Receipts against sponsored fellowships & scholarships	353846	14521621
d) Unutilised Grants	481140532	584348457
e) Grants in advance	0	0
f) Other funds	0	0
g) Other liabilities	0	0
--- Outstanding Liabilities	90368127	90070600
TOTAL (A)	663617277	773827641
B. PROVISIONS		
1. For Taxation	0	0
2. Gratuity	0	0
3. Superannuation/ Pension	0	0
4. Accumulated Leave Encashment	0	0
5. Trade Warranties/ Claims	0	0
6. Others (Specify)	0	0
Security Services	0	0
TOTAL (B)	0	0
TOTAL (A+B)	663617277	773827641

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2021

SCHEDULE 3 (c)- UNUTILISED GRANTS FROM UGC, GOVERNMENT OF INDIA AND STATE GOVERNMENTS

INVESTMENTS FROM EARMARKED/ ENDOWMENT FUNDS	CURRENT YEAR	PREVIOUS YEAR
A. Plan Grants: Government of India		
Balance B/f	584348457	594033660
Add: Receipts during the year	60000000	77361000
Total(a)	644348457	671394660
Less: Refunds	0	0
Less: Utilized for Revenue Expenses	0	0
Less: Utilized for Capital Expenses	163207925	87046203
Less: Prior period adjustment	0	0
total(b)	163207925	87046203
Unutilized carried forward (a-b)	481140532	584348457
B. UGC Grants: Plan		
Balance B/f	0	0
Receipts during the year	0	0
Total(a)	0	0
Less: Refunds	0	0
Less: Utilized for Revenue Expenses	0	0
Less: Utilized for Capital Expenses	0	0
total(b)	0	0
Unutilized carried forward (a-b)	0	0
C. UGC Grants Non Plan		
Balance B/f	0	0
Receipts during the year	0	0
Total(a)	0	0
Less: Refunds	0	0
Less: Utilized for Revenue Expenses	0	0
Less: Utilized for Capital Expenses	0	0
total(b)	0	0
Unutilized carried forward (a-b)	0	0

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2021

D. Grants from State Govt.		
Balance B/f	0	0
Receipts during the year	0	0
Total(a)	0	0
Less: Refunds	0	0
Less: Utilized for Revenue Expenses	0	0
Less: Utilized for Capital Expenses	0	0
Less: Prior period adjustment	0	0
total(b)	0	0
Unutilized carried forward (a-b)	0	0
Grand Total (A+B+C+D)	481140532	584348457

SCHEDULE 5 - INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS	**CURRENT YEAR**	**PREVIOUS YEAR**
1. In Central Government Securities	0	0
2. In State Government Securities	0	0
3. Other Approved Securities	0	0
4. Shares	0	0
5. Debentures and Bonds	0	0
6. Term Deposits with Banks	683795144	708224992
7. Others (to be specified) - SBI Mutual Funds	60000000	0
TOTAL	743795144	708224992

SCHEDULE 6 - INVESTMENTS - OTHERS	**CURRENT YEAR**	**PREVIOUS YEAR**
1. In Central Government Securities	0	0
2. In State Government Securities	0	0
3. Other Approved Securities	0	0
4. Shares	0	0
5. Debentures and Bonds	0	0
6. Others (to be specified)	0	0
TOTAL	**0**	**0**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2021

SCHEDULE 7 - CURRENT ASSETS	CURRENT YEAR	PREVIOUS YEAR
1. Stock:		
a) Stores and Spares		
--- Stores and Spares	0	0
--- Loose Tools	0	0
--- Publications	0	0
--- Laboratory chemicals, consumables and glassware	0	0
--- Building Material	0	0
--- Electrical Material	0	0
--- Stationery	0	0
--- Water supply material	0	0
2. Sundry Debtors:		
a) Debts outstanding for a period exceeding six months	0	0
b) Others		
--- LC Suspense	3386798	2228731
--- FDD's	19955477	18222429
--- Fee Receivable	0	0
--- Plan Grant and Non Plan Grant Receivable	0	0
3. Cash and Bank Balances		
a) Cash Balance in hand(incl cheques / drafts and imprest)		
- Main Cash Balance	0	0
- Petty Cash Balance	0	0
- Imprest with department	330000	330000
b) With Scheduled Banks:		
- In Current Accounts	479727028	315984111
- In Term Deposit Accounts - **STDR**	2270129214	1875906514
- In Savings Accounts	638058	620996
c) With Non-Scheduled banks:		
- In Current Accounts	0	0
- In Term Deposit Accounts	0	0
- In Savings Accounts	0	0
4. Post Office- Savings Accounts	0	0
TOTAL	2774166575	2213292781

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2021

SCHEDULE 8 - LOANS, ADVANCES & DEPOSITS	CURRENT YEAR	PREVIOUS YEAR
1. Advances to employees (Non-interest bearing):		
a) Salary	0	0
b) Festival	0	0
c) LTC	5814431	2231950
d) Others (to be specified)	0	0
2. Long Term Advances to employees (Interest bearing)		
a) Vehicle loan	0	0
b) Home Loan	0	0
c) Others (to be specified)	0	0
3. Advances and other amounts recoverable in cash or in kind or for value to be received:		
a) On Capital Account	0	0
b) To Suppliers	0	0
c) Others	0	0
4. Prepaid Expenses		
a) Insurance	0	0
b) Other Expenses	0	0
5. Deposits		
a) Telephone	27200	27200
b) Lease Rent	0	0
c) Electricity	10429651	10429651
d) AICTE, if applicable	0	0
e) Others(to be specified)		
--- Deposit with Other Department (As per Annexure)	457990	457990
--- Other Dept / Contractors including CPWD	157689789	1576938967
6. Income Accrued:		
a) On Investments from Earmarked/ Endowment Funds	25802956	33308067
b) On Investments- Others	6664614	43129298
c) On Loans and Advances	0	0
d) Others (includes income due unrealized)	0	0
7. Other Current Assets receivable from UGC / sponsored projects		
a) Debit balances in Sponsored Projects	149735	149735
b) Debit balances in Sponsored Fellowship & Scholarship	0	0
c) Grants Recoverable	0	0
d) Other receivables from UGC	0	0
8. Claims Receivable	0	0
TOTAL	**207036366**	**1666672858**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

SCHEDULE - 2 DESIGNATED / EARMARKED / ENDOWMENT FUNDS	FUND WISE BREAK UP											
	FUNDED ACCOUNTS											
	Students Welfare Fund	Magazine Fund	Students Aid Fund	Students Library Fee	Inter University Tournment Fee	Games Fee	Technical Association Fee	Film Club Chrges	Medical Aid & Exam Fee	Computer Maintenance & Email	Students Club Activity	Regn Fee - PG
	1	2	3	4	5	6	7	8	9	10	11	12
a) Opg. Balance of the Funds	9457353	5649548	338817	20684088	242540	3284497	1839424	1428618	23178896	12258391	-720083	317587
b) Additions during the year	4668050	22150	23550	7164600	25050	2410400	21950	22000	2479000	5050600	66050	1347654
c) Income from investments made of the funds	0	0	0	0	0	0	0	0	0	0	0	0
d) Accrued Interest on Investments / Advances	0	0	0	0	0	0	0	0	0	0	0	0
e) Interest on Savings Bank A/c	0	0	0	0	0	0	0	0	0	0	0	0
f) Other additions (Specify nature)	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL (A)	14125403	5671698	362367	27848688	267590	5694897	1861374	1450618	25657896	17308991	-654033	1665241
B) Utilization / Exp towards objectives of funds												
i) Capital Expenditure	0	0	0	0	0	0	0	0	0	0	0	0
i) Revenue Expenditure	2692408	459300	59920	4123758	100	722909	100	100	506633	3815909	300	705640
TOTAL (B)	2692408	459300	59920	4123758	100	722909	100	100	506633	3815909	300	705640
Closing Balance at the year end (A-B)	11432995	5212398	302447	23724930	267490	4971988	1861274	1450518	25151263	13493082	-654333	959601
Represented by												
Cash and Bank Balances	0	0	0	0	0	0	0	0	0	0	0	0
Investments	0	0	0	0	0	0	0	0	0	0	0	0
Interest accrued but not due	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0

SCHEDULE - 2 DESIGNATED / EARMARKED / ENDOWMENT FUNDS	FUND WISE BREAK UP											
	OTHER ITEMS											
	Sanitation Charges	Sale of Applications for recruitment	Industrial Consultancy Centre	NIT Staff Club / CTV	NIT Press Account	SSS TS Hyd - K Laxman	OBC - Co operative Society	Lib Overdue Charges	Maint & Improvement of Auditorium	Officers Co-operative Credit Society	Society for NIT Employees Welfare	RECTA Membership / TA
	13	14	15	16	17	18	19	20	21	22	23	24
a) Opg. Balance of the Funds	208206	7198769	10546436	14476	1432965	372069	0	2398602	-118744	0	200	0
b) Additions during the year	0	0	14255857	263750	54900	682000	1255716	241252	0	10017646	8660	1186387
c) Income from investments made of the funds	0	0	0	0	0	0	0	0	0	0	0	0
d) Accrued Interest on Investments / Advances	0	0	0	0	0	0	0	0	0	0	0	0
e) Interest on Savings Bank A/c	0	0	0	0	0	0	0	0	0	0	0	0
f) Other additions (Specify nature)	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL (A)	208206	7198769	24802293	278226	1487865	1054069	1255716	2639854	-118744	10017646	8860	1186387
B) Utilization / Exp towards objectives of funds												
i) Capital Expenditure	0	0	0	0	0	0	0	0	0	0	0	0
i) Revenue Expenditure	0	326000	16222594	263750	7889	1549552	1255716	0	0	10017646	8660	1186387
TOTAL (B)	0	326000	16222594	263750	7889	1549552	1255716	0	0	10017646	8660	1186387
Closing Balance at the year end (A-B)	208206	6872769	8579699	14476	1479976	-495483	0	2639854	-118744	0	200	0
Represented by												
Cash and Bank Balances	0	0	0	0	0	0	0	0	0	0	0	0
Investments	0	0	0	0	0	0	0	0	0	0	0	0
Interest accrued but not due	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0

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SCHEDULE - 2 DESIGNATED / EARMARKED / ENDOWMENT FUNDS	FUND WISE BREAK UP											
	OTHER ITEMS											
	AICTE NON-PLAN (QIP)	Relief fund for CM / PM	Convocation	Other Examination	College - Self Generation Fund	NIT NT Staff Co-Operative Credit Society	Examination Fee	Visitors Block Resource Fund	Conuciling Expenses (All admissions)	Spring Spree / Technozion	ICC & R&D	SIH-2019-TA-Advance
	25	26	27	28	29	30	31	32	33	34	35	36
a) Opg. Balance of the Funds	859146	0	6674954	10	-401946	2	2345790	9409757	2844089	2920196	2170322	512000
b) Additions during the year	0	4086767	5287000	0	583940	11083902	3517421	166275	1487840	3341700	0	0
c) Income from investments made of the funds	0	0	0	0	0	0	0	0	0	0	0	0
d) Accrued Interest on Investments / Advances	0	0	0	0	0	0	0	0	0	0	0	0
e) Interest on Savings Bank A/c	0	0	0	0	0	0	0	0	0	0	0	0
f) Other additions (Specify nature)	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL (A)	859146	4086767	11961954	10	181994	11083904	5863211	9576032	4331929	6261896	2170322	512000
B) Utilization / Exp towards objectives of funds												
i) Capital Expenditure	0	0	0	0	0	0	0	0	0	0	0	0
i) Revenue Expenditure	0	4086767	1095261	0	212700	11083902	0	6728445	2200657	0	2170322	0
TOTAL (B)	0	4086767	1095261	0	212700	11083902	0	6728445	2200657	0	2170322	0
Closing Balance at the year end (A-B)	859146	0	10866693	10	-30706	2	5863211	2847587	2131272	6261896	0	512000
Represented by												
Cash and Bank Balances	0	0	0	0	0	0	0	0	0	0	0	0
Investments	0	0	0	0	0	0	0	0	0	0	0	0
Interest accrued but not due	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0

SCHEDULE - 2 DESIGNATED / EARMARKED / ENDOWMENT FUNDS	FUND WISE BREAK UP											
	OTHER ITEMS											
	NIT Alumini Association	Sixth Manas Ranjan Memorial Ball Tournament	Cost of Migration Certificate	Cost of Migration Application	Transcripts	Institute Development Contribution	ICC - Suspenses Account	FA Chemistry - NMR Charges	FA CET Charges	AID-EDP-Road Safety - Prof CSRK Prasad	Book Bank SC / ST Students	AICTE Examination Fee
	37	38	39	40	41	42	43	44	45	46	47	48
a) Opg. Balance of the Funds	6154003	1215	16360	4990	871481	32072358	0	100000	63375	-153	-15943	-245014
b) Additions during the year	4382500	0	100	155	1080305	32536500	18912	0	0	0	0	0
c) Income from investments made of the funds	0	0	0	0	0	0	0	0	0	0	0	0
d) Accrued Interest on Investments / Advances	0	0	0	0	0	0	0	0	0	0	0	0
e) Interest on Savings Bank A/c	0	0	0	0	0	0	0	0	0	0	0	0
f) Other additions (Specify nature)	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL (A)	10536503	1215	16460	5145	1951786	64608858	18912	100000	63375	-153	-15943	-245014
B) Utilization / Exp towards objectives of funds												
i) Capital Expenditure	0	0	0	0	0	0	0	0	0	0	0	0
i) Revenue Expenditure	0	0	0	0	326687	30440000	18912	0	0	0	0	0
TOTAL (B)	0	0	0	0	326687	30440000	18912	0	0	0	0	0
Closing Balance at the year end (A-B)	10536503	1215	16460	5145	1625099	34168858	0	100000	63375	-153	-15943	-245014
Represented by												
Cash and Bank Balances	0	0	0	0	0	0	0	0	0	0	0	0
Investments	0	0	0	0	0	0	0	0	0	0	0	0
Interest accrued but not due	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0

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SCHEDULE - 2 DESIGNATED / EARMARKED / ENDOWMENT FUNDS	FUND WISE BREAK UP											
	OTHER ITEMS											
	NIT - SC/ST Employees Welfare Fund	ICC - Administrative Charges	ICH ESCON Students Congress	ICC - Personal Development Fund	MOU-Lakshya	ICC - Faculty Share	Salary Suspense A/c	EMD Suspense Account	Horticulture Fund	Interest Earned on TEQUIP	Training & Placement Section Fund	Maintenance of CI&I
	49	50	51	52	53	54	55	56	57	58	59	60
a) Opg. Balance of the Funds	0	2129490	3	3929198	-14180	11257610	818860	719343	200000	3012251	0	87215
b) Additions during the year	3856910	550633	0	917722	0	5506333	420732	0	0	0	4326000	0
c) Income from investments made of the funds	0	0	0	0	0	0	0	0	0	0	0	0
d) Accrued Interest on Investments / Advances	0	0	0	0	0	0	0	0	0	0	0	0
e) Interest on Savings Bank A/c	0	0	0	0	0	0	0	0	0	0	0	0
f) Other additions (Specify nature)	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL (A)	3856910	2680123	3	4846920	-14180	16763943	1239592	719343	200000	3012251	4326000	87215
B) Utilization / Exp towards objectives of funds												
i) Capital Expenditure	0	0	0	0	0	0	0	0	0	0	0	0
i) Revenue Expenditure	3856910	550196	0	909890	0	1728508	245631	0	0	0	0	0
TOTAL (B)	3856910	550196	0	909890	0	1728508	245631	0	0	0	0	0
Closing Balance at the year end (A-B)	0	2129927	3	3937030	-14180	15035435	993961	719343	200000	3012251	4326000	87215
Represented by												
Cash and Bank Balances	0	0	0	0	0	0	0	0	0	0	0	0
Investments	0	0	0	0	0	0	0	0	0	0	0	0
Interest accrued but not due	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0

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SCHEDULE - 2 DESIGNATED / EARMARKED / ENDOWMENT FUNDS	FUND WISE BREAK UP											
	OTHER ITEMS											
	EUPHRTES - 2013-2018	Corpus Fund	Maintenance Fund	Depreciation Fund	Staff Development Fund	SC - SUB PLAN	ST - SUB PLAN	MHRD-ICCR Dr Ramadevi SOM	NITW Photographic Club	Exce Development P	TCS India Taiwan Programme	Career Development Fee
	61	62	63	64	65	66	67	68	69	70	71	72
a) Opg. Balance of the Funds	175468	663418667	24684078	27572973	19569864	-4809336	356907	-104517	110428	0	-100000	-1609000
b) Additions during the year	0	0	0	0	0	0	0	0	0	480000	100000	0
c) Income from investments made of the funds	0	24558246	1133746	1322250	970799	0	0	0	0	0	0	0
d) Accrued Interest on Investments / Advances	0	0	0	0	0	0	0	0	0	0	0	0
e) Interest on Savings Bank A/c	0	8113	461	640	7848	0	0	0	0	0	0	0
f) Other additions (Specify nature)	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL (A)	175468	687985026	25818285	28895863	20548511	-4809336	356907	-104517	110428	480000	0	-1609000
B) Utilization / Exp towards objectives of funds												
i) Capital Expenditure	0	0	0	0	0	0	0	0	0	0	0	0
i) Revenue Expenditure	0	0	0	0	0	1971840	936894	0	0	216000	0	0
TOTAL (B)	0	0	0	0	0	1971840	936894	0	0	216000	0	0
Closing Balance at the year end (A-B)	175468	687985026	25818285	28895863	20548511	-6781176	-579987	-104517	110428	264000	0	-1609000
Represented by												
Cash and Bank Balances	0	0	0	0	0	0	0	0	0	0	0	0
Investments	0	0	0	0	0	0	0	0	0	0	0	0
Interest accrued but not due	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0

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SCHEDULE - 2 DESIGNATED / EARMARKED / ENDOWMENT FUNDS	FUND WISE BREAK UP				
	OTHER ITEMS		FUND TOTAL	Endowment Fund	Grand Total
	Unnat Bharat Abhiyam - UBA - Dr G Sunitha				
	58	59	60	61	62
a) Opg. Balance of the Funds	370330	0	918145301	9686098	927831399
b) Additions during the year	275000	0	135273869	80000	135353869
c) Income from investments made of the funds	0	0	27985041	489252	28474293
d) Accrued Interest on Investments / Advances	0	0	0	0	0
e) Interest on Savings Bank A/c	0	0	17062	0	17062
f) Other additions (Specify nature)	0	0	0	0	0
TOTAL (A)	645330	0	1081421273	10255350	1091676623
B) Utilization / Exp towards objectives of funds					
i) Capital Expenditure	0	0	0	0	0
i) Revenue Expenditure	505000	0	113209793	545560	113755353
TOTAL (B)	505000	0	113209793	545560	113755353
Closing Balance at the year end (A-B)	140330	0	968211480	9709790	977921270
Represented by					
Cash and Bank Balances	0	0	0	0	0
Investments	0	0	0	0	0
Interest accrued but not due	0	0	0	0	0
Total	0	0	0	0	0

SCHEDULE 2A

ENDOWMENT FUNDS

Specimen format of Sub Schedule to support the figures in the column "Endowment Funds" in the Schedue "Earmarked / Endowment Funds" forming part of balance sheet

		Opening Balance		Addns during the year		Total		Expenditure during the year	Closing Balance		
Sl No	Name of the Endowment	Endowment	Accumulated Interest	Endowment	Accumulated Interest	Endowment	Accumulated Interest		Endowment	Accumulated Interest	Total
1	Late B.R. Sastry's Scholar Ships	31000	28723	0	2803	31000	31526	0	31000	31526	62526
2	Late Dr.Govindakrishnayya M. Fund	22000	25241	0	1989	22000	27230	0	22000	27230	49230
3	Late Prof. A. Palayya Memorial Fund	25000	43757	0	2260	25000	46017	0	25000	46017	71017
4	Late Prof. M.J.Kirpalani & Dr.U.A.Sastry	8500	8016	0	768	8500	8784	0	8500	8784	17284
5	Late Kabaddi Subbulu Mem. Fund	8000	3312	0	723	8000	4035	0	8000	4035	12035
6	Late Prof.V.Venkateswarrao Gold M.	35000	9713	0	3164	35000	12877	0	35000	12877	47877
7	Late Prof. N. Rama Rao Mem. G.M.	82000	24440	30000	7414	112000	31854	14357	112000	17497	129497
8	K.S.R. Srinivasa Momerial Fund	9500	19565	0	859	9500	20424	0	9500	20424	29924
9	Prof. S.K.Lakshmana Rao Shaptyabdi Endo	20000	48088	0	11799	20000	59887	0	20000	59887	79887
10	Chodavarapu Deval Sharma M.Fund	38000	8614	0	3436	38000	12050	0	38000	12050	50050
11	SBH Gold Medal for P.G.Students	13500	8020	0	1221	13500	9241	0	13500	9241	22741
12	N.C.P.R. Charyulu Gold Medal	10000	6239	0	904	10000	7143	0	10000	7143	17143
13	Yelluri Chenchu Rami Reddy&AnnammaGM	6500	7457	0	588	6500	8045	0	6500	8045	14545
14	M. Azmath Ali Umair GM & Scholarships	0	64713	0	0	0	64713	28713	0	36000	36000
15	Prof Alluraiah Gold Medal	50000	18023	0	4521	50000	22544	14357	50000	8187	58187
16	Smt. Poornamma M.G.M.	50000	6887	0	4521	50000	11408	14357	50000	-2949	47051
17	Prof. S. Raja Gopal M.G.M.	50000	5849	0	4521	50000	10370	14357	50000	-3987	46013
18	REC. Allumini America Chapter Gold Medal	50000	66819	0	4521	50000	71340	0	50000	71340	121340
19	Shoban Chalapathi Gold Medal	150000	29889	0	4521	150000	34410	14357	150000	20053	170053
20	K.V. Vijaya saradhi Gold Medal	150000	31385	0	4521	150000	35906	14357	150000	21549	171549
21	Dept. of Maths Humanities Gold Medal	110000	108517	0	9945	110000	118462	28713	110000	89749	199749
22	Smt.Kasireddy Annapurnamma&Venkatesh	50000	40448	0	4521	50000	44969	0	50000	44969	94969
23	Late Sri Yarlagadda Arjuna Rao G.M.	50000	13161	0	4521	50000	17682	0	50000	17682	67682
24	Dr.L.R.Kadiyali G.M.	50000	42184	0	4521	50000	46705	0	50000	46705	96705
25	Kalicharan Memorial Scholarlship	50000	40411	0	4521	50000	44932	0	50000	44932	94932
26	Salek Chand Memorial Scholarship	50000	43411	0	4521	50000	47932	0	50000	47932	97932
27	Batch of 1975-80 Excellence Scholarship	50000	40411	0	4521	50000	44932	0	50000	44932	94932
28	Puvvada Subadramma Memorial Fund	50000	37276	0	4521	50000	41797	0	50000	41797	91797
29	Prof.B.Shankaraiah Gold Medal	50000	14224	0	4521	50000	18745	0	50000	18745	68745
30	Mane Madhavi Gold Medal(Bestoutgoing)	50000	34480	0	0	50000	34480	0	50000	34480	84480
31	S.Venkateswar Rao Gold Medal	150000	71064	0	13562	150000	84626	14357	150000	70269	220269
32	Prof.KSV.Basvi Reddy Gold Medal	150000	102189	0	13562	150000	115751	14357	150000	101394	251394
33	Late Peudyala Pauudra Deo-G.Medal	200000	112756	0	17550	200000	130306	14357	200000	115949	315949
34	Laxmikantha Reddy Gold Medal	150000	97031	0	13562	150000	110593	14357	150000	96236	246236
35	RVR Laxmi Jayamma Memorial G.M.	150000	80746	0	13162	150000	93908	14357	150000	79551	229551

SCHEDULE 2A

ENDOWMENT FUNDS

Specimen format of Sub Schedule to support the figures in the column "Endowment Funds" in the Schedue "Earmarked / Endowment Funds" forming part of balance sheet

Sl No	Name of the Endowment	Opening Balance		Addns during the year		Total		Expenditure during the year	Closing Balance		Total
		Endowment	Accumulated Interest	Endowment	Accumulated Interest	Endowment	Accumulated Interest		Endowment	Accumulated Interest	
36	BANG-Prof.Appayanna Gold Medal	150000	77737	0	13162	150000	90899	14357	150000	76542	226542
37	Allimini Chennai Chapter	0	28	0	0	0	28	0	0	28	28
38	Prof.Tirupathy Reddy-Gold Medal	200000	86708	0	0	200000	86708	14357	200000	72351	272351
39	Dr. Mantha Eswar Rao - Gold Medal	150000	52365	0	0	150000	52365	14357	150000	38008	188008
40	Dr R L Umashankar Gold Medal	150000	66016		13162	150000	79178	14357	150000	64821	214821
41	Ms.S.Shobha Anjani Cash Award	25000	13046	0	2194	25000	15240	0	25000	15240	40240
42	Annual Award of Best Faculty 1978-82	968289	393716	0	45479	968289	439195	0	968289	439195	1407484
43	Prof. Y.D. Reddy - Gold Medal	150000	48269	0	13162	150000	61431	14357	150000	47074	197074
44	Prof SK Laxman Rao GM	110500	0	0	0	110500	0	0	110500	0	110500
45	Dr. K.L.Narayana - Memorial Gold Medal	150000	37174	0	13162	150000	50336	0	150000	50336	200336
46	Prof.M.Venkataratnam	150000	37174	0	13162	150000	50336	14357	150000	35979	185979
47	Late Koniki Padmavathi	150000	37174	0	13162	150000	50336	14357	150000	35979	185979
48	Late Prof.Karnamsivilinga pillai MGM	150000	27174	0	13162	150000	40336	14357	150000	25979	175979
49	Prof. S. Ramaswami Reddy - Gold Med	150000	37174	0	13162	150000	50336	14357	150000	35979	185979
50	Late Sri N. Subba Rao Memorial G.M	150000	37174	0	13162	150000	50336	14357	150000	35979	185979
51	Late Prof. R.L. Murthy - Memorial G.M	150000	37174	0	13162	150000	50336	14357	150000	35979	185979
52	Prof. P.G. Sastry Gold Medal	150000	37174	0	13162	150000	50336	14357	150000	35979	185979
53	Prof. K. Venkat Reddy - Gold Medal	150000	53736	0	11967	150000	65703	14357	150000	51346	201346
54	Prof. K. Nagireddy Medal	150000	37242	0	11967	150000	49209	28713	150000	20496	170496
55	Prof S Ragavachary - Endowment	200000	59630	0	15956	200000	75586	14357	200000	61229	261229
56	Late Ponnala Radhamma - GM	150000	47222	0	13562	150000	60784	14357	150000	46427	196427
58	N Babu Shankar - MGM	150000	36466	50000	15956	200000	52422	0	200000	52422	252422
59	Best of all round Girls Students in Chem Eng-sethuram-Gold M	200000	34306	0	4521	200000	38827	14357	200000	24470	224470
60	1978-82 B Tech Best Student Award	0	76307	0	0	0	76307	43070	0	33237	33237
61	Late K Kameshwara Rao Memorial GM	485000	59522	0	29761	485000	89283	28712	485000	60571	545571
62	Dr Md Yaqoob-Dr Md Hussain- Merit Award	150000	5542	0	10542	150000	16084	0	150000	16084	166084
	Grand Total	**6907789**	**2778309**	**80000**	**489252**	**6987789**	**3267561**	**545560**	**6987789**	**2722001**	**9709790**

SCHEDUE - 3(a) - SPONSORED PROJECTS

Sr No	Name of the Project	Opening Balance		Receipts / Recoveries	Total	Expenditure during the	Closing Balance	
		Credit	Debit				Credit	Debit
1	GOI-MCIT-R&D Prof KSNarayana Reddy	0	8475	0	-8475	0	0	8475
2	COIMOUD COE Prof CSRK	0	34518	0	-34518	0	0	34518
3	DST SRB FAST TRACK Dr V Vasu	0	68519	0	-68519	0	0	68519
4	DSTGOI A Study India Dr Ritanjali	0	38223	0	-38223	0	0	38223
	Total	0	149735	0	-149735	0	0	149735

SCHEDULE 3(b) SPONSORED FELLOWSHIPS AND SCHOLARSHIPS

Sl No	Name of the Sponsor	Opening Balance as on 01.04.2020		Transactions during the year		Closing Balance as on 31.03.2021	
		Cr	Dr	Cr	Dr	Cr	Dr
1	University Grant Commission	0	0	0	0	0	0
2	State Government Scholarships	14521621	0	14476575	28644350	353846	0
3	Others (Specify individually)	0	0	0	0	0	0
		14521621	0	14476575	28644350	353846	0

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2021

SCHEDULE - 4 - FIXED ASSETS (Amount in Rupees)

S.No	DESCRIPTIONS	GROSS BLOCK				DEPRECIATION				NET BLOCK	
		Opg Balance 01.04.2020	Additions	Deductions	Cl Balance 31.03.2021	Dep Opening Balance	Depreciation for the year	Deduction / Adjustments	Total Depreciation	31.03.2021	31.03.2020
1	Land	1	0	0	1	0	0	0	0	1	1
2	Site Development	0	0	0	0	0	0	0	0	0	0
3	Buildings	1807904072	2781088479	0	4588992551	36158081	713901310	0	750059391	3838933160	1771745991
4	Roads & Bridges	14355231	0	0	14355231	287105	1722627	0	2009732	12345499	14068126
5	Tubewells & Water Supply	0	0	0	0	0	0	0	0	0	0
6	Sewarage & Drainage	0	0	0	0	0	0	0	0	0	0
7	Electrical Installation and Equipment	340000	0	0	340000	17000	289000	0	306000	34000	323000
8	Plant & Machinery	0	0	0	0	0	0	0	0	0	0
9	Scientific & Laboratory Equipment	1017320445	104254840	0	1121575285	81385636	567817611	0	649203247	472372038	935934809
10	Office Equipment	0	0	0	0	0	0	0	0	0	0
11	Audit Visual Equipment	0	0	0	0	0	0	0	0	0	0
12	Computers & Peripherals	30007320	27018050	0	57025370	6001464	34813073	0	40814537	16210833	24005856
13	Furniture, Fixtures & Fittings	135598888	2296614	0	137895502	10169916	75239816	0	85409732	52485770	125428972
14	Vehicles	4717424	0	0	4717424	471743	2614658	0	3086401	1631023	4245681
15	Lib Books & Scientific Journals	43737832	0	0	43737832	4373783	30373613	0	34747396	8990436	39364049
16	Small Value of assets	3138550	0	0	3138550	251084	2887465	0	3138549	1	2887466
	Tota (A)	**3057119763**	**2914657983**	**0**	**5971777746**	**139115812**	**1429659173**	**0**	**1568774985**	**4403002761**	**2918003951**
17	Capital Work in progress (B)	**1340065228**	**0**	**1340065228**	**0**	**0**	**0**	**0**	**0**	**0**	**1340065228**

S.No	Intangible Assets	Opg Balance 01.04.2020	Additions	Deductions	Cl Balance 31.03.2021	Dep Opening Balance	Amortization Adjustments	Deductions / Adjustments	Total Amortiziation / Adjustments	31.03.2021	31.03.2020
18	Computer Software	0	3756367	0	3756367	0	3005094	0	3005094	751273	0
19	E-Journals	76941712	25882054	0	102823766	30776685	53706421	0	84483106	18340660	46165027
20	Patents	0	0	0	0	0	0	0	0	0	0
	Total (C)	**76941712**	**29638421**	**0**	**106580133**	**30776685**	**56711515**	**0**	**87488200**	**19091933**	**46165027**
	Grand Total(A+B+C)	**4474126703**	**2944296404**	**1340065228**	**6078357879**	**169892497**	**1486370688**	**0**	**1656263185**	**4422094694**	**4304234206**
	PREVIOUS YEAR	**4387080500**	**87046203**	**0**	**4474126703**	**158438217**	**11454280**	**0**	**169892497**	**4304234206**	**4228642283**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2021

SCHEDULE - 4A - PLAN (Amount in Rupees)

S.No	DESCRIPTIONS	GROSS BLOCK				DEPRECIATION				NET BLOCK	
		Opg Balance 01.04.2020	Additions	Deductions	Cl Balance 31.03.2021	Dep Opening Balance	Depreciation for the year	Deduction / Adjustments	Total Depreciation	31.03.2021	31.03.2020
1	Land	1	0	0	1	0	0	0	0	1	1
2	Site Development	0	0	0	0	0	0	0	0	0	0
3	Buildings	1807904072	2781088479	0	4588992551	36158081	713901310	0	750059391	3838933160	1771745991
4	Roads & Bridges	14355231	0	0	14355231	287105	1722627	0	2009732	12345499	14068126
5	Tubewells & Water Supply	0	0	0	0	0	0	0	0	0	0
6	Sewarage & Drainage	0	0	0	0	0	0	0	0	0	0
7	Electrical Installation and Equipment	340000	0	0	340000	17000	289000	0	306000	34000	323000
8	Plant & Machinery	0	0	0	0	0	0	0	0	0	0
9	Scientific & Laboratory Equipment	1017320445	104254840	0	1121575285	81385636	567817611	0	649203247	472372038	935934809
10	Office Equipment	0	0	0	0	0	0	0	0	0	0
11	Audit Visual Equipment	0	0	0	0	0	0	0	0	0	0
12	Computers & Peripherals	30007320	27018050	0	57025370	6001464	34813073	0	40814537	16210833	24005856
13	Furniture, Fixtures & Fittings	135598888	2296614	0	137895502	10169916	75239816	0	85409732	52485770	125428972
14	Vehicles	4717424	0	0	4717424	471743	2614658	0	3086401	1631023	4245681
15	Lib Books & Scientific Journals	43737832	0	0	43737832	4373783	30373613	0	34747396	8990436	39364049
16	Small Value of assets	3138550	0	0	3138550	251084	2887465	0	3138549	1	2887466
	Tota (A)	**3057119763**	**2914657983**	**0**	**5971777746**	**139115812**	**1429659173**	**0**	1568774985	**4403002761**	**2918003951**
17	Capital Work in progress (B)	**1340065228**	**0**	**0**	**1340065228**	0	0	0	0	**1340065228**	**1340065228**

S.No	Intangible Assets	Opg Balance 01.04.2020	Additions	Deductions	Cl Balance 31.03.2021	Dep Opening Balance	Amortization Adjustments	Deductions / Adjustments	Total Amortiziation / Adjustments	31.03.2021	31.03.2020
18	Computer Software	0	3756367	0	3756367	0	3005094	0	3005094	751273	0
19	E-Journals	76941712	25882054	0	102823766	30776685	53706421	0	84483106	18340660	46165027
20	Patents	**0**	0	0	0	0	0	0	0	0	0
	Total (C)	**76941712**	**29638421**	**0**	**106580133**	**30776685**	**56711515**	**0**	**87488200**	**19091933**	**46165027**

	Grand Total(A+B+C)	**4474126703**	**2944296404**	**0**	**7418423107**	**169892497**	**1486370688**	**0**	**1656263185**	**5762159922**	**4304234206**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2021

SCHEDULE - 4B - NON PLAN

(Amount in Rupees)

S.No	DESCRIPTIONS	GROSS BLOCK				DEPRECIATION				NET BLOCK	
		Opg Balance 01.04.2020	Additions	Deductions	Cl Balance 31.03.2021	Dep Opening Balance	Depreciation for the year	Deduction / Adjustments	Total Depreciation	31.03.2021	31.03.2020
1	Land	0	0	0	0						
2	Site Development	0	0	0	0	0	0	0	0	0	0
3	Buildings	0	0	0	0	0	0	0	0	0	0
4	Roads & Bridges	0	0	0	0						
5	Tubewells & Water Supply	0	0	0	0	0	0	0	0	0	0
6	Sewarage & Drainage	0	0	0	0	0	0	0	0	0	0
7	Electrical Installation and Equipment	0	0	0	0	0	0	0	0	0	0
8	Plant & Machinery	0	0	0	0	0	0	0	0	0	0
9	Scientific & Laboratory Equipment	0	0	0	0	0	0	0	0	0	0
10	Office Equipment	0	0	0	0	0	0	0	0	0	0
11	Audit Visual Equipment	0	0	0	0	0	0	0	0	0	0
12	Computers & Peripherals	0	0	0	0	0	0	0	0	0	0
13	Furniture, Fixtures & Fittings	0	0	0	0	0	0	0	0	0	0
14	Vehicles	0	0	0	0	0	0	0	0	0	0
15	Lib Books & Scientific Journals	0	0	0	0	0	0	0	0	0	0
16	Small Value of assets	0	0	0	0	0	0	0	0	0	0
	Tota (A)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
17	Capital Work in progress (B)	**0**	**0**	**0**	**0**	0	0	0	0	0	0

S.No	Intangible Assets	Opg Balance 01.04.2020	Additions	Deductions	Cl Balance 31.03.2021	Dep Opening Balance	Amortization Adjustments	Deductions / Adjustments	Total Amortiziation / Adjustments	31.03.2021	31.03.2020
18	Computer Software	0	0	0	0	0	0	0	0	0	0
19	E-Journals	0	0	0	0	0	0	0	0	0	0
20	Patents	**0**	**0**	0	0	0	0	0	0	0	0
	Total (C)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Grand Total(A+B+C)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2021

SCHEDULE 4C - INTANGIBLE ASSETS

S.No	DESCRIPTIONS	GROSS BLOCK				DEPRECIATION				NET BLOCK	
		Opg Balance 01.04.2020	Additions	Deductions	Cl Balance 31.03.2021	Dep Opening Balance	Depreciation for the year	Deduction / Adjustments	Total Depreciation	31.03.2021	31.03.2020
1	Patents & Copyrights	0	0	0	0	0	0	0	0	0	0
2	Computer Software	0	0	0	0	0	0	0	0	0	0
3	E-Journals	**0**	**0**	0	0	0	0	0	0	0	0
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

SCHEDULE - 4D - OTHERS

(Amount in Rupees)

S.No	DESCRIPTIONS	GROSS BLOCK				DEPRECIATION				NET BLOCK	
		Opg Balance 01.04.2020	Additions	Deductions	Cl Balance 31.03.2021	Dep Opening Balance	Depreciation for the year	Deduction / Adjustments	Total Depreciation	31.03.2021	31.03.2020
1	Land	0	0	0	0	0	0	0	0	0	0
2	Site Development	0	0	0	0	0	0	0	0	0	0
3	Buildings	0	0	0	0	0	0	0	0	0	0
4	Roads & Bridges	0	0	0	0	0	0	0	0	0	0
5	Tubewells & Water Supply	0	0	0	0	0	0	0	0	0	0
6	Sewarage & Drainage	0	0	0	0	0	0	0	0	0	0
7	Electrical Installation and Equipment	0	0	0	0	0	0	0	0	0	0
8	Plant & Machinery	0	0	0	0	0	0	0	0	0	0
9	Scientific & Laboratory Equipment	0	0	0	0	0	0	0	0	0	0
10	Office Equipment	0	0	0	0	0	0	0	0	0	0
11	Audit Visual Equipment	0	0	0	0	0	0	0	0	0	0
12	Computers & Peripherals	0	0	0	0	0	0	0	0	0	0
13	Furniture, Fixtures & Fittings	0	0	0	0	0	0	0	0	0	0
14	Vehicles	0	0	0	0	0	0	0	0	0	0
15	Lib Books & Scientific Journals	0	0	0	0	0	0	0	0	0	0
16	Small Value of assets	0	0	0	0	0	0	0	0	0	0
	Tota	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
17	Capital Work in progress	**0**	**0**	**0**	**0**	0	0	0	0	0	0

	Grand Total	0	0	0	0	0	0	0	0	0	0

National Institute of Technology - Warangal

Statement showing total depreciation to be provided upto 2020-21

Block Name: Buildings

Year	Cost	Deprn Rate	Year wise Depreciation																	Total Depreciation
			2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	
2003-04	167620202	2%	3352404	3352404	3352404	3352404	3352404	3352404	3352404	3352404	3352404	3352404	3352404	3352404	3352404	3352404	3352404	3352404	3352404	3352404	60343273
2004-05	35459076	2%	0	709182	709182	709182	709182	709182	709182	709182	709182	709182	709182	709182	709182	709182	709182	709182	709182	709182	12056086
2005-06	5742909	2%	0	0	114858	114858	114858	114858	114858	114858	114858	114858	114858	114858	114858	114858	114858	114858	114858	114858	1837731
2006-07	106588866	2%	0	0	0	2131777	2131777	2131777	2131777	2131777	2131777	2131777	2131777	2131777	2131777	2131777	2131777	2131777	2131777	2131777	31976660
2007-08	42309829	2%	0	0	0	0	846197	846197	846197	846197	846197	846197	846197	846197	846197	846197	846197	846197	846197	846197	11846752
2008-09	6695485	2%	0	0	0	0	0	133910	133910	133910	133910	133910	133910	133910	133910	133910	133910	133910	133910	133910	1740826
2009-10	973993628	2%	0	0	0	0	0	0	19479873	19479873	19479873	19479873	19479873	19479873	19479873	19479873	19479873	19479873	19479873	19479873	233758471
2010-11	0	2%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2011-12	112781978	2%	0	0	0	0	0	0	0	0	2255640	2255640	2255640	2255640	2255640	2255640	2255640	2255640	2255640	2255640	22556396
2012-13	1199996302	2%	0	0	0	0	0	0	0	0	0	23999926	23999926	23999926	23999926	23999926	23999926	23999926	23999926	23999926	215999334
2013-14	0	2%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2014-15	0	2%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015-16	247112359	2%	0	0	0	0	0	0	0	0	0	0	0	0	4942247	4942247	4942247	4942247	4942247	4942247	29653483
2016-17	83532361	2%	0	0	0	0	0	0	0	0	0	0	0	0	0	1670647	1670647	1670647	1670647	1670647	8353236
2017-18	1257241639	2%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25144833	25144833	25144833	25144833	100579331
2018-19	268054816	2%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5361096	5361096	5361096	16083289
2019-20	81863101	2%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1637262	1637262	3274524
2020-21	0	2%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4588992551		3352404	4061586	4176444	6308221	7154418	7288327	26768200	26768200	29023839	53023766	53023766	53023766	57966013	59636660	84781493	90142589	91779851	91779851	750059391

0

Block Name: Roads & Buildings

Year	Cost	Depreciation	Year wise Depreciation																	Total Depreciation
			2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	
2003-04	0	2%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2004-05	0	2%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2005-06	0	2%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2006-07	0	2%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2007-08	0	2%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2008-09	0	2%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2009-10	0	2%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2010-11	0	2%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2011-12	0	2%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2012-13	0	2%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2013-14	0	2%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2014-15	14355231	2%	0	0	0	0	0	0	0	0	0	0	0	287105	287105	287105	287105	287105	287105	287105	2009732
2015-16	0	2%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2016-17	0	2%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2017-18	0	2%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2018-19	0	2%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2019-20	0	2%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020-21	0	2%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	14355231		0	0	0	0	0	0	0	0	0	0	0	287105	287105	287105	287105	287105	287105	287105	2009732

National Institute of Technology - Warangal

Statement showing total depreciation to be provided upto 2020-21

Block Name: Electrical Installations

Year	Cost	Depreciation	Year wise Depreciation																	Total Depreciation
			2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	
2003-04	340000	5%	17000	17000	17000	17000	17000	17000	17000	17000	17000	17000	17000	17000	17000	17000	17000	17000	17000	306000
2004-05	0	5%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2005-06	0	5%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2006-07	0	5%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2007-08	0	5%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2008-09	0	5%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2009-10	0	5%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2010-11	0	5%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2011-12	0	5%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2012-13	0	5%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2013-14	0	5%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2014-15	0	5%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015-16	0	5%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2016-17	0	5%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2017-18	0	5%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2018-19	0	5%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2019-20	0	5%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020-21	0	5%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	340000		17000	17000	17000	17000	17000	17000	17000	17000	17000	17000	17000	17000	17000	17000	17000	17000	17000	306000

Block Name: Scientific & Laboratory Equipment

Year	Cost	Depreciation	Year wise Depreciation																	Total Depreciation
			2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	
2003-04	192790968	8%	15423277	15423277	15423277	15423277	15423277	15423277	15423277	15423277	15423277	15423277	15423277	15423277	7711638	0	0	0	0	0	192790967
2004-05	18686253	8%	0	1494900	1494900	1494900	1494900	1494900	1494900	1494900	1494900	1494900	1494900	1494900	1494900	747449				0	18686252
2005-06	12425601	8%	0	0	994048	994048	994048	994048	994048	994048	994048	994048	994048	994048	994048	994048	497023			0	12425600
2006-07	3074811	8%	0	0	0	245985	245985	245985	245985	245985	245985	245985	245985	245985	245985	245985	245985	122991	0	0	3074810
2007-08	6325765	8%	0	0	0	0	506061	506061	506061	506061	506061	506061	506061	506061	506061	506061	506061	506061	253030	0	6325764
2008-09	9529365	8%	0	0	0	0	0	762349	762349	762349	762349	762349	762349	762349	762349	762349	762349	762349	762349	381174	9529364
2009-10	39847475	8%	0	0	0	0	0	0	3187798	3187798	3187798	3187798	3187798	3187798	3187798	3187798	3187798	3187798	3187798	3187798	38253576
2010-11	7746856	8%	0	0	0	0	0	0	0	619748	619748	619748	619748	619748	619748	619748	619748	619748	619748	619748	6817233
2011-12	37737288	8%	0	0	0	0	0	0	0	0	3018983	3018983	3018983	3018983	3018983	3018983	3018983	3018983	3018983	3018983	30189830
2012-13	65015596	8%	0	0	0	0	0	0	0	0	0	5201248	5201248	5201248	5201248	5201248	5201248	5201248	5201248	5201248	46811229
2013-14	81106773	8%	0	0	0	0	0	0	0	0	0	0	6488502	6488502	6488502	6488502	6488502	6488502	6488502	6488502	51908015
2014-15	112369713	8%	0	0	0	0	0	0	0	0	0	0	0	8989577	8989577	8989577	8989577	8989577	8989577	8989577	62927039
2015-16	202073992	8%	0	0	0	0	0	0	0	0	0	0	0	0	16165919	16165919	16165919	16165919	16165919	16165919	96995516
2016-17	70198771	8%	0	0	0	0	0	0	0	0	0	0	0	0	0	5615902	5615902	5615902	5615902	5615902	28079508
2017-18	67457611	8%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5396609	5396609	5396609	5396609	21586436
2018-19	29677708	8%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2374217	2374217	2374217	7122650
2019-20	30481982	8%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2438559	2438559	4877117
2020-21	135029257	8%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10802341	10802341
	1121575285		15423277	16918178	17912226	18158211	18664272	19426621	22614419	23234168	26253151	31454398	37942900	46932477	55386757	52543570	56695704	58449904	60512440	70680575	649203247
	135029257																				

National Institute of Technology - Warangal

Statement showing total depreciation to be provided upto 2020-21

Block Name: Computers & Peripherals

Year	Cost	Depreciation	Year wise Depreciation																	Total Depreciation
			2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	
2003-04	25322338	20%	5064468	5064468	5064468	5064468	5064467	0	0	0	0	0	0	0	0	0	0	0	0	0	25322337
2004-05	0	20%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2005-06	3969044	20%	0	0	793809	793809	793809	793809	793808	0	0	0	0	0	0	0	0	0	0	0	3969043
2006-07	0	20%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2007-08	0	20%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2008-09	0	20%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2009-10	0	20%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2010-11	0	20%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2011-12	0	20%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2012-13	0	20%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2013-14	0	20%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2014-15	715938	20%	0	0	0	0	0	0	0	0	0	0	0	143188	143188	143188	143188	143187	0	0	715937
2015-16	0	20%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2016-17	0	20%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2017-18	0	20%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2018-19	0	20%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2019-20	27018050	20%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5403610	5403610	10807220
2020-21	0	20%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	57025370		5064468	5064468	5858276	5858276	5858275	793809	793808	0	0	0	0	143188	143188	143188	143188	143187	5403610	5403610	40814537
	0																				

Block Name: Furniture, Fixture & Fittings

Year	Cost	Depreciation	Year wise Depreciation																	Total Depreciation
			2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	
2003-04	11393365	7.50%	854502	854502	854502	854502	854502	854502	854502	854502	854502	854502	854502	854502	854502	284833	0	0	0	0	11393364
2004-05	390167	7.50%	0	29263	29263	29263	29263	29263	29263	29263	29263	29263	29263	29263	29263	29263	9753	0	0	0	390166
2005-06	4515976	7.50%	0	0	338698	338698	338698	338698	338698	338698	338698	338698	338698	338698	338698	338698	338698	112898	0	0	4515975
2006-07	5612135	7.50%	0	0	0	420910	420910	420910	420910	420910	420910	420910	420910	420910	420910	420910	420910	420910	140302	0	5612134
2007-08	0	7.50%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2008-09	2174620	7.50%	0	0	0	0	0	163097	163097	163097	163097	163097	163097	163097	163097	163097	163097	163097	163097	163097	2120255
2009-10	17286169	7.50%	0	0	0	0	0	0	1296463	1296463	1296463	1296463	1296463	1296463	1296463	1296463	1296463	1296463	1296463	1296463	15557552
2010-11	14027833	7.50%	0	0	0	0	0	0	0	1052087	1052087	1052087	1052087	1052087	1052087	1052087	1052087	1052087	1052087	1052087	11572962
2011-12	6038718	7.50%	0	0	0	0	0	0	0	0	452904	452904	452904	452904	452904	452904	452904	452904	452904	452904	4529039
2012-13	7921823	7.50%	0	0	0	0	0	0	0	0	0	594137	594137	594137	594137	594137	594137	594137	594137	594137	5347231
2013-14	4078517	7.50%	0	0	0	0	0	0	0	0	0	0	305889	305889	305889	305889	305889	305889	305889	305889	2447110
2014-15	11002637	7.50%	0	0	0	0	0	0	0	0	0	0	0	825198	825198	825198	825198	825198	825198	825198	5776384
2015-16	12360493	7.50%	0	0	0	0	0	0	0	0	0	0	0	0	927037	927037	927037	927037	927037	927037	5562222
2016-17	264153	7.50%	0	0	0	0	0	0	0	0	0	0	0	0	0	19811	19811	19811	19811	19811	99057
2017-18	31617534	7.50%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2371315	2371315	2371315	2371315	9485260
2018-19	-2779162	7.50%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-208437	-208437	-208437	-625311
2019-20	9693910	7.50%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	727043	727043	1454087
2020-21	2296614	7.50%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	172246	172246
	137895502		854502	883765	1222463	1643373	1643373	1806470	3102932	4155020	4607924	5202060	5507949	6333147	7260184	6710326	8777299	8333309	8666846	8698789	85409732
	135598888																				
							1062186														

National Institute of Technology - Warangal

Statement showing total depreciation to be provided upto 2020-21

Block Name: Vehicles

Year	Cost	Depreciation	Year wise Depreciation																	Total Depreciation
			2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	
2003-04	1355926	10%	135593	135593	135593	135593	135593	135593	135593	135593	135593	135592	0	0	0	0	0	0	0	0	1355925
2004-05	2071848	10%	0	207185	207185	135514	135514	106219	106219	106219	58131	0	0	0	0	0	0	0	0	0	1062185
2005-06	259446	10%	0	0	25945	25945	25945	25945	25945	25945	25945	25945	25945	25945	0	0	0	0	0	0	259446
2006-07	-716707	10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2007-08	1090	10%	0	0	0	0	109	109	109	109	109	109	109	109	109	109	0	0	0	0	1090
2008-09	-292955	10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2009-10	0	10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2010-11	0	10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2011-12	0	10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2012-13	0	10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2013-14	0	10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2014-15	0	10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015-16	0	10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2016-17	0	10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2017-18	0	10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2018-19	0	10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2019-20	203878	10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	203878	203878	407755
2020-21	0	10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4717424		135593	342778	368722	297051	297160	267865	267865	267865	219778	161645	26054	26054	109	109	0	0	203878		3086401
	4717424																				

Block Name: Library Books & Scientific Journals

Year	Cost	Depreciation	Year wise Depreciation																	Total Depreciation
			2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	
2003-04	10553026	10%	1055303	1055303	1055303	1055303	1055303	1055303	1055303	1055303	1055303	1055302	0	0	0	0	0	0	0	0	10553025
2004-05	295	10%	0	30	30	30	30	30	30	30	30	30	29	0	0	0				0	294
2005-06	0	10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0	0
2006-07	0	10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2007-08	3216399	10%	0	0	0	0	321640	321640	321640	321640	321640	321640	321640	321640	321639	0	0	0	0	0	3216398
2008-09	0	10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2009-10	0	10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2010-11	0	10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2011-12	0	10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2012-13	0	10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2013-14	0	10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2014-15	29968112	10%	0	0	0	0	0	0	0	0	0	0	0	2996811	2996811	2996811	2996811	2996811	2996811	2996811	20977678
2015-16	0	10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2016-17	0	10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2017-18	0	10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2018-19	0	10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2019-20	0	10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020-21	0	10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	43737832		1055303	1055332	1055332	1055332	1376972	1376972	1376972	1376972	1376972	1376971	321668	3318451	3318451	3318450	2996811	2996811	2996811	2996811	34747395
	43737832																				

National Institute of Technology - Warangal

Statement showing total depreciation to be provided upto 2020-21

Block Name: Small value of assets

Year	Cost	Depreciation	Year wise Depreciation																	Total Depreciation
			2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	
2003-04	3138550	8%	251084	251084	251084	251084	251084	251084	251084	251084	251084	251083	251084	251084	125542	0	0	0	0	0	3138549
2004-05	0	8%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2005-06	0	8%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2006-07	0	8%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2007-08	0	8%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2008-09	0	8%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2009-10	0	8%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2010-11	0	8%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2011-12	0	8%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2012-13	0	8%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2013-14	0	8%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2014-15	0	8%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015-16	0	8%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2016-17	0	8%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2017-18	0	8%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2018-19	0	8%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2019-20	0	8%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2020-21	0	8%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3138550		251084	251084	251084	251084	251084	251084	251084	251084	251084	251083	251084	251084	125542	0	0	0	0		3138549
	3138550																				0

Block Name: Computer Software

Year	Cost	Depreciation	Year wise Depreciation																	Total Depreciation
			2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	
2003-04	0	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2004-05	0	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2005-06	0	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2006-07	0	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2007-08	0	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2008-09	0	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2009-10	0	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2010-11	0	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2011-12	0	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2012-13	0	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2013-14	0	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2014-15	0	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015-16	0	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2016-17	0	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2017-18	0	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2018-19	0	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2019-20	3756367	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1502547	1502547	3005094
2020-21	0	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3756367		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1502547	1502547	3005094

National Institute of Technology - Warangal

Statement showing total depreciation to be provided upto 2020-21

Block Name: E-Journals

Year	Cost	Depreciation	Year wise Depreciation																	Total Depreciation
			2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	
2003-04	0	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2004-05	0	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2005-06	0	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2006-07	0	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2007-08	0	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2008-09	0	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2009-10	0	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2010-11	0	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2011-12	0	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2012-13	0	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2013-14	0	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2014-15	15341347	40%	0	0	0	0	0	0	0	0	0	0	0	6136539	6136539	3068268	0	0	0	0	15341346
2015-16	8378952	40%	0	0	0	0	0	0	0	0	0	0	0	0	3351581	3351581	1675789	0	0	0	8378951
2016-17	9628736	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	3851494	3851494	1925746	0	0	9628735
2017-18	0	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2018-19	29535559	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11814224	11814224	5907111	29535558
2019-20	14057118	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5622847	5622847	11245694
2020-21	25882054	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10352822	10352822
	102823766		0	0	0	0	0	0	0	0	0	0	0	6136539	9488120	10271344	5527284	13739970	17437071	21882780	84483106

SCHEDULE 5(A) - INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS (FUND WISE)

Sl No	PARTICULARS	CURRENT YEAR	PREVIOUS YEAR
1	Late B.R. Sastry's Scholarships	31000	31000
2	Late Dr.Govindakrishnayya M. Fund	22000	22000
3	Late Prof.A. Palayya Memorial Fund	25000	25000
4	Late Prof.M.J. Kirpalani &UA.Sastry Prize Money	8500	8500
5	Late Kabaddi Subbulu Memorial Fund	8000	8000
6	Late Prof. V.Venkateswara Rao Gold Medal	35000	35000
7	Late Prof. N. Rama Rao Memorial Gold Medal	32000	32000
8	Late Prof. N. Rama Rao Memorial Gold Medal	50000	50000
9	Late Prof. N. Rama Rao Memorial Gold Medal	30000	0
10	K.S.R.Srinivasa Memorial Fund	9500	9500
11	Prof. S.K.Lakshmana Rao Shatyabdi Endowment	20000	20000
12	Prof. S.K.Lakshmana Rao Gold Medal	110500	110500
13	Chodavarapu Deval Sharma Memorial Fund	38000	38000
14	SBH Gold Medal for PG Students	13500	13500
15	NCPR. Charyulu Gold Medal	10000	10000
16	Sri Yelluri Chenchu Rami Reddy & Annamma	6500	6500
17	M.Azmath Ali Umair Gold Medal Scholarships	0	0
18	Prof. Alluraiah Gold Medal	50000	50000
19	Smt. Poornamma Memorial Gold Medal	50000	50000
20	Prof. S.Raja Gopal Gold Medal	50000	50000
21	REC Alumuni America Chapter Gold Medal	**50000**	**50000**
22	Shobhana Chalapathi Gold Medal	150000	150000
23	Sri .K.V. Vijaya Sardhi Gold Medal	150000	150000
24	Dept of maths & Humanitis Gold Medal	110000	110000
25	Smt.Kasireddy Annapurnamma & Venkatesh	50000	50000
26	Late Sri Yarlagadda Arjuna Rao Gold Medal	50000	50000
27	Dr.L.R.Kadiyali	50000	50000
28	Kalicharan Memorial Scholarship	50000	50000
29	Salek Chand Memorial Scholarship	50000	50000
30	Batch of 1975-80 Excellence Scholarship	50000	50000
31	Puvvada Subadramma Memorial Fund	50000	50000
32	Prof.B.Shankaraiah Gold Medal	50000	50000
33	Mane Madhavi Gold Medal(Best Outgoing Girls U.G.Stdts)	50000	50000
34	S.Venkateswar Rao Gold Medal	50000	50000
35	S.Venkateswar Rao Gold Medal	100000	100000
36	Prof.KSV.Basvi Reddy Gold Medal	150000	150000
37	D. Laxmikantha Reddy Gold Medal	150000	150000
38	RVR Laxmi Jayamma Gold Medal	150000	150000
39	Pendiyal Upendra Sastry Deo Gold Medal	200000	200000
40	Alumini Batch 1978-82 Batch Best Faculty Award	968289	968289
41	Prof. Appayanna Gold Medal	150000	150000
42	Ms.S.Shobha Anjani Cash Award	25000	25000
43	Prof Y.D. Reddy Gold Medal	150000	150000
44	Dr.R.L.Umashankar Gold Medal	150000	150000
45	Prof.Tirupathy Reddy - Gold Medal	200000	200000
46	Dr. Mantha Eswar Rao Gold Medal	150000	150000
47	Dr. K.L. Narayana - Momerial Gold Medal	150000	150000
48	Prof. M. Venkataratnam - Gold Medal	150000	150000
49	Late Smt. Koniki Padmavathi	150000	150000
50	Late Prof.Karnam Sivilinga Pillai M.G.M	150000	150000
51	Prof.. S. Ramaswami Reddy - Gold Medal	150000	150000

SCHEDULE 5(A) - INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS (FUND WISE)

Sl No	PARTICULARS	CURRENT YEAR	PREVIOUS YEAR
62	Best of all round Girls Student - Dr G Sethuram	200000	200000
63	Dr Md Yaqoob - Dr Md Hussain - Merit Award	150000	150000
64	Corpus Fund	609586372	637439899
65	Maintenance Fund	22919710	21959584
66	Depreciation Fund	25923914	24587658
67	Staff Development Fund	18377359	17330062
68	SBI Mutual Funds	60000000	0
	TOTAL	**743795144**	**708224992**

National Institute of Technology - Warangal

Annexure - A to Schedule - 7 to Consolidated Balance Sheet

	Amount in Rs
I. Savings Bank Accounts	
1 Grants from UGC A/c	
2 University Receipts A/c	
3 Scholarship A/c	
4 Academic Fee Receipts A/c	
5 Development (Plan) a/c	
6 Combined Entrance Exam(CBT) A/c	
7 UGC Plan Fellowship A/c	
8 Corpus Fund A/c	
--- Corpus Fund - SBI - 62266262269	303,400
--- Depreciation Fund - SBI - 62008192476	23,930
--- Maintenance Fund - SBI - 62008192487	17,237
--- Staff Development Fund - SBI - 62008192465	293,491
9 Sponsored Projects Fund A/c	
10 Sponsored Fellowship A/c	
11 Endowment & Chair A/c (EMF)	
12 UGC JRF Fellowship A/c (EMF)	
13 HBA Fund A/c (EMF)	
14 Conveyance A/c (EMF)	
15 UGC Rajiv Gandhi National Fellowship A/c (EMF)	
16 Academic Development Fund A/c (EMF)	
17 Deposit A/c	
18 Student Fund A/c	
19 Student Aid Fund A/c	
20 Plan Grants for Specific Schemes	
21 Provident Fund A/c - SBI - 52109484765	17,608,436
II. Current Accounts	
1 Director Main A/c - SBI - 52109375198	474,707,608
2 Fee A/c - Kotak Bank -	4,885,738
3 EMD A/c - SBI - 62334024238	13,939
4 Fee a/c - SBI - 62114635443	119,743
III. Term Deposits with Scheduled Banks	
Total	**497,973,522**

ENCOSURE TO BALANCE SHEET

ENCLOSURE TO CURRENT LIABILITIES AND PROVISIONS (Schedule - 3)

HEAD OF ACCOUNT	OPG. BALANCE	RECEIPTS	PAYMENTS	CLG BALANCE
Earnest Money Deposit /Security Deposit	36496658	13993204	8012095	42477767
Security Deposit for staff Quarters	63216	1578	0	64794
Lab and Library Deposit	26968009	0	208000	26760009
Other deposit	8461601	2992129	2694522	8759208
Deposit for Rent and other Service Charges	2000	0	0	2000
ICC R&D Account	11000	0	0	11000
NIT Co-operative Stores Deposit	3219820	1622750	0	4842570
Hostel Caution Money Deposit	446664	0	0	446664
GRAND TOTAL	**75668968**	**18609661**	**10914617**	**83364012**
		18609661	10914617	0

ENCLOSURE TO CURRENT LIABILITIES AND PROVISIONS (Schedule - 3)

HEAD OF ACCOUNT	OPG. BALANCE	RECEIPTS	PAYMENTS	CLG BALANCE
Sales Tax	294218	0	0	294218
Profession Tax	550102	1644000	1730700	463402
Income Tax	1060287	131156068	130760355	1456000
LIC (SSS)	30	12163039	12163033	36
GLIS	-895	3859631	3870331	-11595
Staff Contribution for NPS Scheme	0	40311405	40311405	0
Labour Commissioner (CESS)	82896	781259	382360	481795
Provident Fund Subscription	0	38414594	38386971	27623
EPF	7501	4366285	4370036	3750
Seignorage Charges	284514	20837	11657	293694
Service / Commercial Tax	0	0	0	0
GST - TDS	3110566	5203801	5998367	2316000
ICC - GST	3828776	1499968	2262907	3065837
GRAND TOTAL	**9217995**	**239420887**	**240248122**	**8390760**
		239420887	240248122	
		0	0	

ENCLOSURE TO SCHEDULE - 8 (Item 5)

HEAD OF ACCOUNT	OPG. BALANCE	DEPOSITS	REFUNDS	CLG BALANCE
Security deposit with				
--- Indial Oxyzen	200	0	0	200
--- Supremme Court	2000	0	0	2000
--- ICC R&D Accoutn	10000	0	0	10000
--- APSEB HT Supply	10429651	0	0	10429651
Deposit with Petrol Pump	39546	0	0	39546
Dep with Gas Co Wgl, Out of depn chg	6400	0	0	6400
Dep with Karnataka Oxyzen Ltd., Sec.	3800	0	0	3800
Deposit with Telephone Department	27200	0	0	27200
Deposit with TP Dept.(ICC R&D A/C)	1000	0	0	1000
Deposit with Labour court	8847	0	0	8847
Deposit with INSDOC	436	0	0	436
Deposit with Post Office	7200	0	0	7200
Deposit with U I I Company	14468	0	0	14468
Deposit with Cell Phones	4813	0	0	4813
Deposit with SBH, REC Warangal	500	0	0	500
Deposit with SBH NITW for const of building	0	0	0	0
Deposit with Ashoka Agencies	1000	0	0	1000
Deposit with Canara Bank	1000	0	0	1000
Deposit with HP Gas company	37500	0	0	37500
Deposit With NEDCAP-Ltd	319280	0	0	319280
GRAND TOTAL	**10914841**	**0**	**0**	**10914841**

ENCLOSURE TO SCHEDULE - 7 - CURRENT ASSETS (Item No 1 & 2)

HEAD OF ACCOUNT	OPG. BALANCE	PURCHASED	UTILISED	CLG BALANCE
Central Stores	0	0	0	0
Steel	0	0	0	0
FDD	18222429	20259230	18526182	19955477
LC Suspense	2228731	4103957	2945890	3386798
GRAND TOTAL	**20451160**	**24363187**	**21472072**	**23342275**

ENCLOSURE TO SCHEDULE - 7 - BANK DEPOSITS (Item No 3(b))

HEAD OF ACCOUNT	OPG. BALANCE	DEPOSITED	MATURED	TOTAL	Last Y/r Int Acrued reversed	Current Y/r Int Acrued	Closing Balance
Short Term Deposit Account	1875906514	1200433145	842675129	2233664530	43129298	6664614	2270129214
GRAND TOTAL	**1875906514**	**1200433145**	**842675129**	**2233664530**	**43129298**	**6664614**	**2270129214**

ENCLOSURE TO SCHEDULE - 5A (Terms Deposits with Banks)

HEAD OF ACCOUNT	OPG. BALANCE	DEPOSITED	MATURED	TOTAL	Last Y/r Int Acrued reversed	Current Y/r Int Acrued	Closing Balance
Corpus Fund	637439899	55100849	90542603	601998145	25681697	18093470	609586372
Maintenance Fund	21959584	3841466	2707720	23093330	2707720	2881340	22919710
Depreciation Fund	24587658	4284275	2962025	25909908	2962025	2948019	25923914
Staff Development Fund	17330062	2927424	1956625	18300861	1956625	1880127	18377359
SBI Mutual Funds	0	60000000	0	60000000	0	0	60000000
GRAND TOTAL	**701317203**	**126154014**	**98168973**	**729302244**	**33308067**	**25802956**	**736807355**

ENCLOSURE TO LOANS & ADVANCES AND OTHER ASSETS

HEAD OF ACCOUNT	OPG. BALANCE	ADVANCED	COLLECTION	CLG BALANCE
STAFF ADVANCE				
Festival Advance	0	0	0	0
LTC Advance	2231950	9810364	6227883	5814431
Prepaid Insurance	0	0	0	0
GRAND TOTAL	**2231950**	**9810364**	**6227883**	**5814431**
OTHER ADVANCES including CPWD	1576938967	177918276	1597167454	157689789
GRAND TOTAL	**1576938967**	**177918276**	**1597167454**	**157689789**

NATIONAL INSTITUTEOF TECHNOLOGY, WARANGAL
INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2021

(Amount in Rupees)

INCOME	SCHEDULE	General Fund	Total	Previous Year
Academic Receipts	9	406204662	406204662	422359019
Garnts / Subsidies	10	1997272000	1997272000	2201800000
Income from Investments	11	66370772	66370772	81696814
Interest Earned	12	0	0	0
Other Income	13	24448458	24448458	71281487
Prior Period Income/adjustment	14	0	0	0
			0	
TOTAL (A)		**2494295892**	**2494295892**	**2777137320**
EXPENDITURE				
Staff Payments & Benefits (Establishment Expenses)	15	1328730613	1328730613	1243142641
Academic Expenses	16	361420284	361420284	315144341
Administrative and General Exp	17	112413209	112413209	164011892
Transportation expenses	18	1990051	1990051	2151224
Reparis & Maintenance	19	84190537	84190537	116628323
Finance Cost	20	0	0	0
Depreciation	4	203452947	203452947	11454280
Other Expenses	21	0	0	0
Prior Period Expenses	22	1282917741	1282917741	0
TOTAL (B)		**3375115382**	**3375115382**	**1852532701**
Balance being excess of Income over Expenditure (A-B)		(880819490)	-880819490	924604619
Transfer to / from Designated Fund		0	0	0
Building Fund		0	0	0
Others if Any		0	0	0
Central Stores			0	0
Building Material			0	0
Balance being surplus (Deficit) carried to General Fund		**-880819490**	**-880819490**	**924604619**
Notes on Accounts	22			

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

SCHEDULES FORMING PART OF INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR 2020 - 21

SCHEDULE 9- ACADEMIC RECEIPTS

FEE FROM STUDENTS	CURRENT YEAR	PREVIOUS YEAR
A. Academic		
1.Tution fee	400249862	416711964
2. Admission fee	5413750	5121655
3. Enrolment fee	0	0
4. Library Admission fee	0	0
5. Laboratory fee	0	0
6. Art & Craft fee	0	0
7. Registration fee		0
Foreign Students	0	0
PG Students	0	0
8. Syllabus fee	0	0
9. College Resources Fund	0	0
TOTAL (A)	**405663612**	**421833619**
B. Examinations		
1. Admission Test fee	0	0
2. Annual Examination fee	0	0
3. Marksheet, Certificate fee	0	0
4. Entrance Examination Fee	0	0
TOTAL (B)	**0**	**0**
C. Other fees		
1. Identity Card fee	541050	525400
2. Fine/ Miscellaneous fee	0	0
3. Medical fee	0	0
4. Transportation fee	0	0
5. Hostel fee	0	0
TOTAL (C)	**541050**	**525400**
D. Sale of Publications		
1. Sale of Admission forms	0	0
2. Sale of Syllabus and Question paper, etc.	0	0
3. Sale of Prospectus including admission forms	0	0
TOTAL (D)	**0**	**0**
E.Other Academic Receipts		
1. Registration fee for workshops, programmes	0	0
2. Registration fees (Academic Staff College)	0	0
TOTAL (E)	**0**	**0**
GRAND TOTAL (A+B+C+D)	**406204662**	**422359019**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

SCHEDULES FORMING PART OF INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR 2020 - 21

SCHEDULE 10 - GRANTS / SUBSIDIES (IRREVOCABLE GRANTS RECEIVED)

	PLAN			TOTAL PLAN	NON PLAN /	CURRENT	PREVIOUS
	GOVT OF	UGC					
	INDIA	PLAN	SPC SCHEME		UGC	YEAR TOTAL	YEAR
Balance B/f	0	0	0	0	0	0	0
Add: Receipts during the year	0	0	0	0	1997272000	1997272000	2201800000
Total	0	0	0	0	1997272000	1997272000	2201800000
Less: Refunded to UGC	0	0	0	0	0	0	0
Balance	0	0	0	0	1997272000	1997272000	2201800000
Less: Utilized for Capital Expenditure (A)	0	0	0	0	0	0	
Balance	0	0	0	0	1997272000	1997272000	2201800000
Less: Utilized for Revenue Expenditure (B)	0	0	0	0	1997272000	1997272000	2201800000
TOTAL	0	0	0	0	0	0	0

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

SCHEDULES FORMING PART OF INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR 2020 - 21

SCHEDULE 11- INCOME FROM INVESTMENTS

	Earmarked / Endowment Funds		Other Investments	
	CURRENT YEAR	**PREVIOUS YEAR**	**CURRENT YEAR**	**PREVIOUS YEAR**
1. Interest				
a) On Govt. Securities	0	0	0	0
b) Other Bonds/ Debentures	0	0	0	0
2. Interest on Term Deposits	27985041	28102169	66370772	81696814
3. Income accrued but not due on Term Deposits / Interest bearing advances to employees	0	0	0	0
4. Interest on Savings Bank Accounts	17062	19565	0	0
4. Others (Specify)	0	0	0	0
TOTAL	**28002103**	**28121734**	**66370772**	**81696814**
TRANSFERRED TO EARMARKED/ ENDOWMENT FUNDS	**28002103**	**28121734**		

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

SCHEDULES FORMING PART OF INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR 2020 - 21

SCHEDULE 12- INTEREST EARNED

Particulars	CURRENT YEAR	PREVIOUS YEAR
1. On Savings Accounts with Scheduled Banks	0	0
2. On Loans		
a) Employees / Staff	0	0
b) Others	0	0
3. On Debtors and Other Receivables	0	0
TOTAL	**0**	**0**

SCHEDULE 13- OTHER INCOME

A.Income from Land & Building	CURRENT YEAR	PREVIOUS YEAR
1. Hostel Room Rent	0	0
2. License fee	850287	1824726
3. Hire Charges of Auditorium/Play ground/Convention Centre,etc.	0	0
4. Electricity Charges recovered	1595472	45630242
5. Water Charges recovered	155913	97664
Total (A)	**2601672**	**47552632**
B. Sale of Institute's Publications	**0**	0
C. Income from from holding events		
1.Gross Receipts from annual function/sports caenival	0	0
Less : Direct Expenditure incurred on the annual function/sports carnival	0	0
2. Gross Receipts from fetes	0	0
Less : Direct Expenditure incurred on the fetes	0	0
3. Gross Receipts for educational tours	0	0
Less : Direct Expenditure incurred on the tours	0	0
4. Others (to be specified and separately disclosed)	0	0
TOTAL(C)	**0**	**0**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

SCHEDULES FORMING PART OF INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR 2020 - 21

D. Others		
1. Income from Consultancy	2202532	3472894
2. RTI Fees	0	0
3. Income from Royalty	0	0
4. Sale of application form (recruitment)	0	0
5. Misc. receipts (Sale of tender form, waste paper, etc.)	0	0
6. Profit on Sale/ Disposal of Assets:		
a) Owned Assets	0	0
b) Assets acquired out of grants, or received free of cost	0	0
7. Grants / Donations from Institutions, Welfare Bodies and International Organizations	0	0
8. Others (Specify) - Rent from Guest House	184300	1039468
--- Other Miscelleneous Income	19459954	19216493
TOTAL(H)	**21846786**	**23728855**
GRAND TOTAL (A+B+C+D+E+F+G+H)	**24448458**	**71281487**

SCHEDULE 14- PRIOR PERIOD INCOME/ADJUSTMENT

Particulars	**CURRENT YEAR**	**PREVIOUS YEAR**
1. Academic Receipts	0	0
2. Income from Investments	0	0
3. Interest Income	0	0
4. Prior Adjustment	0	0
5. Other Income	0	0
TOTAL	**0**	**0**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

SCHEDULES FORMING PART OF INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR 2020 - 21

SCHEDULE 15A - EMPLOYEES RETIREMENT AND TERMINAL BENEFITS

	PENSION	GRATUITY	LEAVE ENCASHEMENT	TOTAL
Opening Balance as on 01.04.2020	0	0	0	0
Addition: Capitalized value of contributions received from organizations	0	0	0	0
Total (a)	0	0	0	0
Less: Actual Payment during the year (b)	0	0	0	0
Balance Available as on 31.03.2021 (a-b)	0	0	0	0
Provision required on 31.03.2021 as per Acturial Valuation	0	0	0	0
A. Provision to be made in the Current Year	265494473	0	0	265494473
B. Contribution to New Pension Scheme	50656662	0	0	50656662
C. Medical Reimbursement to Retired Employees	0	0	0	0
D. Travel to hometown on Retirement	0	0	0	0
E. Deposit Linked Insurance Payment	0	0	0	0
TOTAL (A+B+C+D)	**316151135**	**0**	**0**	**316151135**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

SCHEDULES FORMING PART OF INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR 2020 - 21

SCHEDULE 15- STAFF PAYMENTS & BENEFITS	CURRENT YEAR			PREVIOUS YEAR		
	PLAN	NON PLAN	TOTAL	PLAN	NON PLAN	TOTAL
a) Salaries and Wages	0	812734218	812734218	0	827809165	827809165
b) Allowances and Bonus - Bonus for Non Teaching Staff	0	0	0	0	0	0
c) Contribution to Provident Fund	0	0	0	0	0	0
d) Contribution to Other Fund (Specify)	0	0	0	0	0	0
e) Staff Welfare Expenses	0	16482567	16482567	0	12893894	12893894
f) Retirement and Terminal Benefits	0	316151135	316151135	0	304988039	304988039
g) LTC facility	0	11234231	11234231	0	2412265	2412265
h) Medical facility	0	0	0	0	0	0
i) Children Education Allowance	0	9027030	9027030	0	11667822	11667822
j) Honorarium	0	0	0	0	0	0
k) Others (Specify)	0	0	0	0	0	0
--- Amenities to Staff & Students	0	0	0	0	939981	939981
--- EL Encashment		6489010	6489010	0	975739	975739
--- Overtime Allowance		0	0	0	32333	32333
--- Leave Encashment	0	10472729	10472729	0	15405625	15405625
--- Arrears of Salary	0	83581596	83581596	0	0	0
--- Daily wage / consolidated / Outsourcing charges	0	62558097	62558097	0	66017778	66017778
TOTAL	**0**	**1328730613**	**1328730613**	**0**	**1243142641**	**1243142641**

SCHEDULE 16- ACADEMIC EXPENSES	CURRENT YEAR			PREVIOUS YEAR		
	PLAN	NON PLAN	TOTAL	PLAN	NON PLAN	TOTAL
a) Laboratory Expenses	0	0	0	0	0	0
b) Field work/ Participation in Conferences	0	0	0	0	0	0
c) Expenses on Seminars / Workshops	0	612212	612212	0	1824737	1824737
d) Payment to Visiting Faculty - Contingency for Spl Faculty & Allowances	0	11651799	11651799	0	27507834	27507834
e) Examination	0	0	0	0	0	0
f) Student Welfare expenses	0	0	0	0	0	0
g) Admission expenses	0	0	0	0	0	0
h) Convocation expenses	0	0	0	0	0	0

i) Publications	0	0	0	0	0	0
j) Stipend/ means-cum-merit scholarship	0	329055187	329055187	0	269713652	269713652
k) Subscription expenses	0	0	0	0	0	0
l) Others (Specify)	0	0	0	0	0	0
--- Professional Development Allowance	0	20101086	20101086	0	16098118	16098118
TOTAL	**0**	**361420284**	**361420284**	**0**	**315144341**	**315144341**

SCHEDULE 17- ADMINISTRATIVE AND GENERAL EXPENSES	**CURRENT YEAR**			**PREVIOUS YEAR**		
	PLAN	**NON PLAN**	**TOTAL**	**PLAN**	**NON PLAN**	**TOTAL**
A. Infrastructure						
a) Electricity and Power	0	31256194	31256194	0	64297939	64297939
b) Water charges	0	4524975	4524975	0	4298227	4298227
c) Insurance	0	0	0	0	0	0
d) Rent, Rates and Taxes (including property tax)	0	0	0	0	0	0
B. Communication						
e) Postage and telegram	0	0	0	0	0	0
f) Telephone, Fax and Internet Charges	0	15543705	15543705	0	7303476	7303476
C. Others						
g) Printing and Stationary (Consumption)	0	1187007	1187007	0	2570504	2570504
h) Travelling and Conveyance Expenses	0	1823913	1823913	0	12304725	12304725
i) Hospitality	0	0	0	0	0	0
j) Auditor's Remuneration	0	391800	391800	0	114000	114000
k) Professional Charges - Legal Charges	0	653375	653375	0	4969914	4969914
l) Advertisement and Publicity	0	1125572	1125572	0	1643591	1643591
m) Magazines and Journals	0	0	0	0	0	0
n) Others (Specify)	0	0	0	0	0	0
--- DOC - Contingent Expenses	0	8689839	8689839	0	10005005	10005005
--- Security Staff Salaries (Temporary Staff)	0	44678321	44678321	0	52483388	52483388
--- Conservancy Charges	0	0	0	0	0	0
--- Guest House Charges	0	37282	37282	0	191512	191512
--- Other Miscelleneous Expenses	0	2501226	2501226	0	3829611	3829611
TOTAL	**0**	**112413209**	**112413209**	**0**	**164011892**	**164011892**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

SCHEDULES FORMING PART OF INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR 2020 - 21

SCHEDULE 18- TRANSPORTATION EXPENSES	CURRENT YEAR			PREVIOUS YEAR		
	PLAN	NON PLAN	TOTAL	PLAN	NON PLAN	TOTAL
1. Vehicles (owned by educational institution)						
a) Running Expenses	0	1981068	1981068	0	1921178	1921178
b) Repairs and Maintenance	0	0	0	0	0	0
c) Insurance Expenses	0	8983	8983	0	230046	230046
2. Vehicles taken on Rent/ Lease						
a)Rent/ Lease Expenses	0	0	0	0	0	0
3. Vehicle (Taxi) hiring expenses	0	0	0	0	0	0
TOTAL	**0**	**1990051**	**1990051**	**0**	**2151224**	**2151224**

SCHEDULE 19- REPAIRS AND MAINTENANCE	CURRENT YEAR			PREVIOUS YEAR		
	PLAN	NON PLAN	TOTAL	PLAN	NON PLAN	TOTAL
a) Building	0	84091031	84091031	0	116283846	116283846
b) Furnitures and Fixtures	0	0	0	0	0	0
c) Plant and Machinery	0	0	0	0	0	0
d) Office Equipment	0	99506	99506	0	344477	344477
e) Computers	0	0	0	0	0	0
f) Laboratory & scientific equipment	0	0	0	0	0	0
g) Audit Visual Equipment	0	0	0	0	0	0
h) Cleaning Material & Services	0	0	0	0	0	0
i) Book binding charges	0	0	0	0	0	0
j) Gardening	0	0	0	0	0	0
k) Estate Maintenance	0	0	0	0	0	0
l) Others (Specify)	0	0	0	0	0	0
TOTAL	**0**	**84190537**	**84190537**	**0**	**116628323**	**116628323**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

SCHEDULES FORMING PART OF INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR 2020 - 21

SCHEDULE 20- FINANCE COSTS	CURRENT YEAR			PREVIOUS YEAR		
	PLAN	NON PLAN	TOTAL	PLAN	NON PLAN	TOTAL
a) Bank Charges	0	0	0	0	0	0
b) Others (Specify)	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**

SCHEDULE 21- OTHER EXPENSES	CURRENT YEAR			PREVIOUS YEAR		
	PLAN	NON PLAN	TOTAL	PLAN	NON PLAN	TOTAL
a) Provision for Bad and Doubtful Debts/ Advances	0	0	0	0	0	0
b) Irrecoverable Balances Written-off	0	0	0	0	0	0
c) Grants / Subsidies to other Institutions / Organizations	0	0	0	0	0	0
c) Others (Specify)	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**

SCHEDULE 22- PRIOR PERIOD EXPENSES	CURRENT YEAR			PREVIOUS YEAR		
	PLAN	NON PLAN	TOTAL	PLAN	NON PLAN	TOTAL
1. Establishment Expenses	0	0	0	0	0	0
2. Academic Expenses	0	0	0	0	0	0
3. Administrative Expenses	0	0	0	0	0	0
4. Transportation Expenses	0	0	0	0	0	0
5. Repairs & Maintenance	0	0	0	0	0	0
c) Other Expenses - Earlier year depreciation upto 2019-20	0	1282917741	1282917741	0	0	0
TOTAL	**0**	**1282917741**	**1282917741**	**0**	**0**	**0**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL
RECEIPTS AND PAYMENTS FOR THE YEAR ENDED 31-03-2021

(Amount in Rupees)

RECEIPTS	Current Year	Previous Year	PAYMENTS	Current Year	Previous Year
I. Opening Balances:			**I. Expenses**		
a) Cash in hand			a) Establishment Expenses	1328730613	1243142641
--- Main Cash Book	0	0	b) Academic Expenses	361420284	315144341
--- Petty Cash Book	0	16	c) Administrative Expenses	112413209	164011892
--- Imprest with Departments	330000	330000	d) Transportation Expenses	1990051	2151224
--- Fee Account (Cash)	0	0	e) Repairs & Maintenance	84190537	116628323
			f) Prior Period Expenses	0	0
b) Bank Balances					
			II. Payments made against Earmarked / Endowment Funds		
--- In Current Accounts	312145233	390370500	--- Earmarked Fund	180023116	184380854
--- In Deposit Accounts	0	0	--- Endowment Fund	545560	153750
--- Savings Account (others)	620996	601431	**III. Payments against Sponsored Projects / Schemes**	0	0
--- Fee Bank A/c(Current)	1732548	22944			
--- EMD (Current)	13566	12658			
--- Kotak Mahindra Bank	2092764	0			
			IV. Payments against Sponsored Felllowships / Scholarships	0	0
II. Grants Received					
a) From Govt. of India					
--- Towards Capital Fund	60000000	77361000	**V. Investments and Deposits made**		
--- Towards Revenue Exp	1997272000	2201800000	a) Out of Earmarked / Endowments funds	80000	150000
			b) Out of Own funds	0	0
b) From State Government	0	0			
c) From Other Sources(TLC)	32400000	0	**VI. Term Deposits with Scheduled Banks**	1326587159	1456637121
III. Academic Receipts (As per Annexure)	410950112	476553939	**VII. Expenditure on Fixed Assets and Capital Works - in - Progress**		
			a) Fixed Assets	2944296404	87046203
IV. Receipts against Earmarked / Endowment Fund			b) Capital Work - in - Progress	0	0
--- Earmarked Fund	215921520	283164548			
--- Endowment Fund	80000	150000			
V. Receipts against Sponsored Projects / Schemes	0	0	**VIII. Other Payments including statutory payments**		
			--- Statutory Liabilities	240248122	230291881
VI. Receipts against Sponsored Fellowships and Scholarships	0	0			
			IX. Refunds and Grants	0	0

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL
RECEIPTS AND PAYMENTS FOR THE YEAR ENDED 31-03-2021

(Amount in Rupees)

RECEIPTS	Current Year	Previous Year	PAYMENTS	Current Year	Previous Year
VII. Income on Investments from					
--- Earmarked / Endowment Funds	489252	564672	**X. Deposits and Advances**		
--- Other Investments	0	0	--- Other Deposits	10914617	29161349
			--- Advances Accounts	187728640	61141591
VIII. Interest received on					
--- Bank Deposits	66370772	81696814	**XI. Other Payments**		
--- Loand and Advances	0	0			
--- Savings Bank Account	0	0	--- Outstanding Liabilities	90070600	79651636
			--- Purchases Accounts	24363187	93122685
IX. Investment encashed	0	0			
X. Term Deposits with Scheduled Banks encashed	940844102	397113738			
XI. Other Income (including PPI)					
--- Income from L & B	1034587	2864194			
--- Other Income	18668421	14222373			
XII. Deposits & Advances			**XII. Closing Balances**		
--- Other Deposits	18609661	16919939	a) Cash in hand		
--- Advances Accounts	1603395337	17176895	--- Main Cash Book	0	0
			--- Petty Cash Book	0	0
XIII. Miscelleneous Receipts including Statutory Receipts			--- Imprest with Departments	330000	330000
--- Statutory Liabilities	239420887	233032008	--- Fee Account (Cash)	0	0
			--- EMD	0	0
XIV. Any Other Receipts			**b) Bank Balances**		
--- Purchase Accounts	21472072	93145697	--- In Current Accounts	474707608	312145233
--- SBI Deposit for const of bldg	0	2576632	--- In Deposit Accounts	0	0
--- Outstanding Liabilities	90368127	90070600	--- Savings Account (Others)	638058	620996
--- Work in progress	1340065228	0	--- Fees Bank account (Current a/c)	119743	1732548
			--- EMD A/c	13939	13566
			--- Kotak Mahindra Bank	4885738	2092764
	7374297185	**4379750598**		**7374297185**	**4379750598**

ENCLOSURE TO RECEIPTS AND PAYMENTS ACCOUNT (Amount in Rupees)

RECEIPTS AND PAYMENTS TOWARDS ENDOWMENT FUNDS	RECEIPTS	PAYMENTS
Towards Interest and other payments		
Late BR Sastry Scholarships	2803	0
Late Dr Govindakrishnaiah MF	1989	0
Late Prof A Pallayya Memorial Fund	2260	0
Late Prof M J Kirpalani & Dr U A Sastry P Money	768	0
Late Kabaddi Subbulu Mem Fund	723	0
Late Prof V Venkateswarrao Gold Medal	3164	0
Late Prof N Rama Rao Memorial GM	7414	14357
KSR Srinivas Memorial Fund	859	0
Prof SK Laxmana Rao Shatabdi Endowment Fund	11799	0
Choudavarapu Deval Sharma M Fund	3436	0
SBH Gold Medal for PG Students	1221	0
NCPR Charyulu Gold Medal	904	0
Yelluri Chenchu Ramireddy and Yelluri Annamma GM	588	0
M Azmath Ali Unair Gold Medal & Scholarship	0	28713
Prof Alluraiah Gold Medal	4521	14357
Smt Poornamma Memorial Gold Medal	4521	14357
Prof S Raja Gopal Rao Gold Medal	4521	14357
REC Alumni America Chapter	4521	0
Shobhana Chalapathi Gold Medal	4521	14357
K V Vijaya Saradhi	4521	14357
Dept of Maths & Humanities Gold Medal	9945	28713
Smt Kasireddy Annapurnamma & Sri Kasireddy Venkatesh GM	4521	0
Late Sri Yarlagadda Arjuna Rao GM	4521	0
Dr L R Kadiyali GM	4521	0
Kalicharan Memorial Scholarship	4521	0
Salek Chand Memorial Scholarship	4521	0
Batch of 1975-80 Excellence Scholarship	4521	0
Puvvada Subadramma Memorial Fund	4521	0
Prof B Shankaraiah Gold Medal	4521	0
Manne Madhavi Gold Medal	0	0
S Venkateshwar Rao Gold Medal	13562	14357
Prof KSV Basvi Reddy Gold Medal	13562	14357
Late Peudyala Pauudra Deo Gold Medal	17550	14357
Laxmi Kantha Reddy Gold Medal	13562	14357
RVR Laxmi Jayamma Gold Medal	13162	14357
Prof Appayana Gold Medal	13162	14357
Prof Tirupathy Reddy GM	0	14357

ENCLOSURE TO RECEIPTS AND PAYMENTS ACCOUNT (Amount in Rupees)

Dr Mantha Eswar Rao GM	0	14357
Dr RL Umashankar GM	13162	14357
Ms Shobha Anjani Cash Award	2194	0
Annual Award of Best Faculty 1978-82	45479	0
Prof Y D Reddy GM	13162	14357
Dr K L Narayana MGM	13162	0
Prof M Venkatarathnam	13162	14357
Late Koniki Padmavathi	13162	14357
Late Prof Karnamsivilinga Pillai MGM	13162	14357
Prof S Ramaswami Reddy GM	13162	14357
Late Sri N Subba Rao MGM	13162	14357
Late Prof R L Murthy MGM	13162	14357
Prof P G Sastry GM	13162	14357
Ponnala Radhamma GM	13562	14357
Prof K Venkat Reddy GM	11967	14357
Prof K Nagireddy GM	11967	28713
Prof Ragavachary - Endowment	15956	14357
Prof N Babu Shankar - Memorial GM	15956	0
Best all round Girls student - Dr G Sethuram	4521	14357
1972-82 B Tech Best Student Award	0	43070
Late K Kameswara Rao memorial Gold Medal	29761	28712
Dr M Yaqoob - Dr Md Hussain - Merit Award	10542	0
	489252	**545560**
Towards Endowment Funds / Deposits		
Prof N Rama Rao Gold Medal	30000	30000
Prof Babu Shankar	50000	50000
	80000	**80000**
TOTAL CAPITAL FUND	**569252**	**625560**

ADVANCES

	RECEIPTS	**PAYMENTS**
I. Advances to Departments / Firms / Others		
--- Advances to Departmes / Firms /Others inlcuding CPWD	1597167454	177918276
SUB TOTAL (A)	**1597167454**	**177918276**
II.STAFF ADVANCES		
LTC Advance	6227883	9810364
Festival Advance	0	0
SUB TOTAL (B)	**6227883**	**9810364**
GRAND TOTAL (A+B)	**1603395337**	**187728640**

ENCLOSURE TO RECEIPTS AND PAYMENTS ACCOUNT (Amount in Rupees)

Purchases	RECEIPTS	PAYMENTS
LC Suspense	2945890	4103957
FDD	18526182	20259230
	21472072	**24363187**

Statutory Liabilities	RECEIPTS	PAYMENTS
Sales Tax / VAT	0	0
Profession Tax	1644000	1730700
Income Tax	131156068	130760355
LIC (SSS)	12163039	12163033
GLIS	3859631	3870331
Staff Contribution for NPS Scheme	40311405	40311405
E P F (Daily Wages)	4366285	4370036
Provident Fund Subscription	38414594	38386971
Labour Commissioner (CESS)	781259	382360
Seignorage Charges	20837	11657
GST - TDS	5203801	5998367
ICC - GST	1499968	2262907
	239420887	**240248122**

CAPITAL EXPENSES INCURRED DURING THE YEAR

	RECEIPTS	PAYMENTS
Buildings	0	2781088479
E-Journals	0	25882054
Equipment General including MHRD & AICTE	0	104254840
Vehicles	0	0
Furniture	0	2296614
Computers & Peripherals		27018050
Computer Software		3756367
Work-in-progress	1340065228	0
GRAND TOTAL ******	**1340065228**	**2944296404**

OTHER DEPOSIT ACCOUNTS (Amount in Rupees)

	RECEIPTS	PAYMENTS
Earnest Money Deposit / Security Deposit	13993204	8012095
Lab and Library Deposit	0	208000
Other deposit	2992129	2694522
Security Deposit for Staff Quarters	1578	0
NIT Co-Operative Stores Deposit	1622750	0
	18609661	**10914617**

ENCLOSURE TO RECEIPTS AND PAYMENTS ACCOUNT (Amount in Rupees)

INVESTMENTS ACCOUNT

Short Term Deposit Account with SBI, NITW	842675129	1200433145
Corpus Fund	90542603	55100849
Maintenance Fund	2707720	3841466
Depreciation Fund	2962025	4284275
Staff Development Fund	1956625	2927424
SBI Mutual Funds	0	60000000
	940844102	**1326587159**

EARMARKED FUNDS	**RECEIPTS**	**PAYMENTS**
Student Welfare Fund	4668050	2692408
Magazine Fee	22150	459300
Students Aid Fund	23550	59920
Students Library Fee	7164600	4123758
Inter University Tournament Fee	25050	100
Games Fee	2410400	722909
Technical Association Fee	21950	100
Film Club Charges	22000	100
Medical Aid and Exam Fee	2479000	506633
Compu Maint & Email (Student Collection)	5050600	3815909
Students Club Activity	66050	300
Other Scholarships	14476575	28644350
Sale of Application for Recruitment	0	326000
Industrial Consultancy Centre	14255857	16222594
NIT Staff Club / CTV	263750	263750
NIT Press Account	54900	7889
SSA TS Hyd RAA A Ram K Laxna SS Abh	682000	1549552
Library Overdue charges	241252	0
Officers Co-op Credit Society	10017646	10017646
Society for NIT Employee Welfare	8660	8660
College Resource Fund(Self Generation)	583940	212700
Convocation	5287000	1095261
Registration fee PG	1347654	705640
RECTA Membership / Teacher's Association	1186387	1186387
NIT NT Staff Co-op Credit Society	11083902	11083902
Relief fund for CM/PM	4086767	4086767
Examination Fee	3517421	0
Visitors Block Resource Fund	166275	6728445
Counciling Expenses	1487840	2200657
Spring Spree / Technozion	3341700	0
ICC R&D	0	2170322

ENCLOSURE TO RECEIPTS AND PAYMENTS ACCOUNT		(Amount in Rupees)
NIT Alumini Association	4382500	0
ICC suspense account	18912	18912
Cost of Migration Certificate	100	0
Cost of Migration Application	155	0
Transcripts	1080305	326687
Institute Development Contribution	32536500	30440000
NIT SC / ST Emloyees Welfare Fund	3856910	3856910
ICC Administrative Charges	550633	550196
ICC Personal Development fund	917722	909890
ICC Faculty Share	5506333	1728508
Salary Suspense	420732	245631
TCS India Taiwan Programme	100000	0
Training & Placement Section Fund	4326000	0
OBC Co operative society	1255716	1255716
Exec Development Programme	480000	216000
Unnat Bharat Abhiyan UBA - Dr G Sunitha	275000	505000
Corups Fund	55108962	30542603
Corups Fund - Maintenance Fund	3841927	2707720
Corups Fund - Depreciation Fund	4284915	2962025
Corups Fund - Staff Development Fund	2935272	1956625
SC / ST Plan	0	2908734
Grand Total	**215921520**	**180023116**

NATIONAL INSTITUTEOF TECHNOLOGY, WARANGAL
RESEARCH SCHEMES ACCOUNT
BALANCE SHEET AS AT 31-03-2021

(Amount in Rupees)

SOURCES OF FUNDS	SCHEDULE	Current Year	Previous Year
Corpus / Capital Fund	1	30462092	36007150
Designated / Earmarked / Endowment Funds	2	0	0
Current Liabilities & Provisions	3	225006591	264785342
TOTAL		**255468683**	**300792492**
APPLICATION OF FUNDS			
Fixed Assets	4		
-- Tangible Assets		0	0
-- Intangible Assets		0	0
-- Capital Work in progress		0	0
Investments	5		
-- Long Term		0	0
-- Short Term		0	0
Investments - Others	6	0	0
Current Assets	7	175883211	237394479
Loans, Advanes & Deposits	8	79585472	63398013
TOTAL		**255468683**	**300792492**
Significant Accounting Policies	23		
Contingent Liabilities and Notes to Accounts	24		

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

RESEARCH SCHEMES ACCOUNT

SCHEDULES FORMING PART OFBALANCE SHEET AS AT 31-03-2021

SCHEDULE 1- CORPUS FUND / CAPITAL FUND	CURRENT YEAR	PREVIOUS YEAR
Balance as at the beginning of the year	36007150	29282690
Add: Contributions towards Corpus / Capital Fund	0	0
Add: Grants from UGC, GOI and State Government to the extent utilized for capital expenditure	0	0
Add: Assets purchased out of Earmarked Funds	0	0
Add: Assets purchased out of Sponsored Projects where ownership vests in the institution	0	0
Add: Assets Donated / Gifts Received	0	0
Add: Other Addition	0	0
Add: Excess of Income over expenditure transferred from Income & Expenditure Account	-5545058	6724460
	30462092	36007150
Ded: Deficit of Incover over Expenditure transerred from Income & Expenditure Account	0	0
Balance at the year end	**30462092**	**36007150**

SCHEDULE 3 - CURRENT LIABILITIES & PROVISIONS	CURRENT YEAR	PREVIOUS YEAR
A. CURRENT LIABILITIES		
1. Deposits from staff		
2. Deposits from students		
3. Sundry Creditors		
a) For Goods & Services	0	0
b) Others	0	0
4. Deposits - others (including EMD, Security deposit)	0	0
5. Statutory Liabilities(GPF, TDS, WC TAX, CPF, GIS, NPS):		
a) Overdue	0	0
b) Others - Professional Tax & Income Tax & GST-TDS	19409781	19128473
7. Other Current Liabilities:		
a) Salaries	0	0
b) Receipts against sponsored projects	154400881	224103927
c) Receipts against sponsored fellowships & scholarships	0	0
d) Unutilised Grants	0	0
e) Grants in advance	0	0
f) Other funds	0	0
g) Other liabilities - Advances / FDD / LC Suspense	51195929	21552942
TOTAL (A)	**225006591**	**264785342**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL
RESEARCH SCHEMES ACCOUNT
SCHEDULES FORMING PART OFBALANCE SHEET AS AT 31-03-2021

B. PROVISIONS		
1. For Taxation	0	0
2. Gratuity	0	0
3. Superannuation/ Pension	0	0
4. Accumulated Leave Encashment	0	0
5. Trade Warranties/ Claims	0	0
6. Others (Specify) - Advances / FDD / LC suspense	0	0
TOTAL (B)	0	0
TOTAL (A+B)	**225006591**	**264785342**

SCHEDULE 7 - CURRENT ASSETS	**CURRENT YEAR**	**PREVIOUS YEAR**
1. Stock:		
a) Stores and Spares		
--- Stores and Spares	0	0
--- Loose Tools	0	0
--- Publications	0	0
--- Laboratory chemicals, consumables and glassware	0	0
--- Building Material	0	0
--- Electrical Material	0	0
--- Stationery	0	0
--- Water supply material	0	0
2. Sundry Debtors:		
a) Debts outstanding for a period exceeding six months	0	0
b) Others		
3. Cash and Bank Balances		
a) Cash Balance in hand(incl cheques / drafts and imprest)		
- Main Cash Balance	0	0
- Petty Cash Balance	0	0
- Imprest with department	0	0
b) With Scheduled Banks:		
- In Current Accounts	0	0
- In Term Deposit Accounts - **STDR**	142490112	142490112
- In Savings Accounts	33393099	94904367
c) With Non-Scheduled banks:		
- In Current Accounts	0	0
- In Term Deposit Accounts	0	0
- In Savings Accounts	0	0
4. Post Office- Savings Accounts	0	0
TOTAL	175883211	**237394479**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL
RESEARCH SCHEMES ACCOUNT
SCHEDULES FORMING PART OFBALANCE SHEET AS AT 31-03-2021

SCHEDULE 8 - LOANS, ADVANCES & DEPOSITS	CURRENT YEAR	PREVIOUS YEAR
1. Advances to employees (Non-interest bearing):		
a) Salary	0	0
b) Festival	0	0
c) LTC	0	0
d) Others (to be specified)	0	0
2. Long Term Advances to employees (Interest bearing)		
a) Vehicle loan	0	0
b) Home Loan	0	0
c) Others (to be specified)	0	0
3. Advances and other amounts recoverable in cash or in kind or for value to be received:		
a) On Capital Account	0	0
b) To Suppliers	0	0
c) Others		
--- Advance receivable / LC Suspense / FDD Suspense	0	0
4. Prepaid Expenses		
a) Insurance	0	0
b) Other Expenses	0	0
5. Deposits		
a) Telephone	0	0
b) Lease Rent	0	0
c) Electricity	0	0
d) AICTE, if applicable	0	0
e) Others(to be specified)		
6. Income Accrued:		
a) On Investments from Earmarked/ Endowment Funds	0	0
b) On Investments- Others	0	0
c) On Loans and Advances	0	0
d) Others (includes income due unrealized)	0	0
7. Other Current Assets receivable from UGC / sponsored projects		
a) Debit balances in Sponsored Projects	79585472	63398013
b) Debit balances in Sponsored Fellowship & Scholarship	0	0
c) Grants Recoverable	0	0
d) Other receivables from UGC	0	0
8. Claims Receivable	0	0
TOTAL	**79585472**	**63398013**

SCHEDULE - 3(a) - SPONSORED PROJECTS

Sr No	Name of the Project	Opening Balance		Receipts / Recoveries	Total	Expenditure during the	Closing Balance	
		Credit	Debit				Credit	Debit
1	Mechnotranics Lab(MED)FIST	77518	0	0	77518	0	77518	0
2	First Program-Dr.CSRK Prasad	0	4831	0	-4831	0	0	4831
3	Rajiv Gandhi GN.Fellowship(Chemistry)	17874	0	0	17874	0	17874	0
4	PMGSY-Panchayat - Prof. CSRK	371983	0	0	371983	0	371983	0
5	Wgl.Water Shed-Dr.N.V.Uma Mahesh	78	0	0	78	0	78	0
6	AP Cost Trg.Program	64	0	0	64	0	64	0
7	GOI-NPEE-Prof.N.V.Ram Murthy	414	0	0	414	0	414	0
8	IT-Theme Centre(ECE)	984	0	0	984	0	984	0
9	ISTAM-99-Prof.TIV Iyengar	39	0	0	39	0	39	0
10	GOI-MCIT-DIT-Prof.DVLN.Somayajulu-ISEAP	138057	0	0	138057	0	138057	0
11	SEIMUS-Civil	46875	0	0	46875	0	46875	0
12	AICTE-EFIP Program	74683	0	0	74683	0	74683	0
13	MOOD - Centre of Excellence - Prof.CSRKP	9980966	0	0	9980966	0	9980966	0
14	R&D Project -Dr.M.Vinod Kumar	19109	0	0	19109	0	19109	0
15	AR & DB Orithect....Investment..Dr.GVN	467168	0	0	467168	0	467168	0
16	DRDI(DRDO)-CSP Rao(MED)	97773	0	0	97773	0	97773	0
17	AP-Cost-R&D-Special Project-Dr.Shoba	339	0	0	339	0	339	0
18	UGC-Sri.M.Divakar-Maths	61310	0	0	61310	0	61310	0
19	EM-Research-CSIR-Dr.V. Rajeswarrao	2181	0	0	2181	0	2181	0
20	CSIR Grant/Fellowship-S.Satyanarayana	133174	0	0	133174	0	133174	0
21	IPPSSM-CSP Rao...Missiles.	254858	0	0	254858	0	254858	0
22	DLRL-DRDO-S.Anjaneyulu	10126	0	0	10126	0	10126	0
23	Nava Research Board - Prof. Appa Rao	0	28000	0	-28000	0	0	28000
24	CSIR Project -Dr.P.V.Sreelakshmi	53	0	0	53	0	53	0
25	DST Grant-Dr.Y.Ravi Kumar - MED	264205	0	0	264205	0	264205	0
26	GOI-Dept.of A.Energy...CFD..Dr.H.P.Rani	86	0	0	86	0	86	0
27	UGC-Grants Contingency for MBA	160000	0	0	160000	0	160000	0
28	DST-End Forming....Mr.J.Davidson-MED	133638	0	0	133638	0	133638	0
29	NRRDA-MRD-Sealing....Prof.CSRK-Civil	304034	0	0	304034	0	304034	0
30	GOI-DST-Devpt.of...turnors-Dr.PVS.Laxmi	16130	0	0	16130	0	16130	0
31	GOI-DST-Formability....Dr.M.Joseph Dev.	49120	0	0	49120	0	49120	0
32	CSIR-Dr.B.Rajitha/B.Suresh kumar	54000	0	0	54000	0	54000	0
33	GOI-DST-Dr.Venkat Reddy, K. - CIVIL	201256	0	0	201256	0	201256	0

SCHEDULE - 3(a) - SPONSORED PROJECTS

Sr No	Name of the Project	Opening Balance		Receipts / Recoveries	Total	Expenditure during the	Closing Balance	
		Credit	Debit				Credit	Debit
34	DST-CWRDM-Dr. E. Venkatratnam - Civil	1455	0	0	1455	0	1455	0
35	UGC-Pawan Kumar - JRF - Maths	138758	0	0	138758	0	138758	0
36	CSIR-Research Fellow-Mallikarjun - G.	5000	0	0	5000	0	5000	0
37	UGC-JRF-Mr.R.Raj Kumar/Chemistry	21783	0	0	21783	0	21783	0
38	LRDE-ECE-Prof. NS.Murthy	290595	0	0	290595	0	290595	0
39	GOI-DST-Dr.P.Abdul Azeem-Physics	0	11	0	-11	0	0	11
40	Indian-A.S. Workshop-Dr.Vishnushankar-Chemistry	51006	0	0	51006	0	51006	0
41	R.Proj-Institute Overhead Charges	22702708	0	3613274	26315982	605279	25710703	0
42	UGC-Mr.Krishnaiah-Chemistry	35371	0	0	35371	0	35371	0
43	DRDO-Dr.KV.Gobi - Chemistry	736564	0	0	736564	0	736564	0
44	ECIL Radar Signal Processing-CBR-Rao	45000	0	0	45000	0	45000	0
45	National Workshop - R.T. Naik	20000	0	0	20000	0	20000	0
46	IIT - Madras - Jangam Ebenezer - CSE	71250	0	0	71250	0	71250	0
47	IIT - Madras - B.R. Purushotham - CSE	160000	0	0	160000	0	160000	0
48	UGC - Galli Rajitha - Chemistry	6569	0	0	6569	0	6569	0
49	CV - Raman Inter.Fellowship.Mekonnen	100	0	0	100	0	100	0
50	CV - Raman Inter.Fellowship.Awokeamdar	44100	0	0	44100	0	44100	0
51	MHRD - ISTE-IITB-Workshop-Prof.BV.Appa	206288	0	0	206288	0	206288	0
52	CSIR-Vijaykumar - Co-Ord.GVP.Chandra	42136	0	0	42136	0	42136	0
53	IIC-InfosysFRP1-Prof.DVLN.Somayajulu	182114	0	0	182114	0	182114	0
54	CSIR - Kinetic….Powder…Dr. Asitkumar	0	100	0	-100	0	0	100
55	UGC-Ms.Syed Naheed, Deptt. Of Phy	79198	0	0	79198	0	79198	0
56	RS-1201-MoU-RPS Laksha-Dr.P.R.kumar	9965	0	0	9965	0	9965	0
57	RS-1202-MoU-RPS Laksha-Dr.S.Venkate	20000	0	0	20000	0	20000	0
58	RS-1203-MoU-RPS Laksha-Dr.K.Padma	1040	0	0	1040	0	1040	0
59	RS-1204-MoU-RPS Laksha-Dr.P.Pruthvi	20000	0	0	20000	0	20000	0
60	IEI-Robot-Dr.V.Vasu - MED	13640	0	0	13640	0	13640	0
61	MoU-RS112-PTV-Pilot Project-Dr.CSRK	600062	0	0	600062	0	600062	0
62	DST - SERB-FAST TRACK-Dr.N.Venkaiah	11178	0	0	11178	0	11178	0
63	DLRL-4121-Design..Dr.NVSN&Dr.Vakula	0	4447	0	-4447	0	0	4447
64	CSIR-Muripiti Venkanna-Chemistry-JRF	32100	0	0	32100	0	32100	0
65	DST-SERB-Dr.P.V.Srilakshmi-Chemistry	247846	0	0	247846	0	247846	0
66	SERB-PAC-2013-Prof.CSRK.Prasad	459642	0	0	459642	0	459642	0

SCHEDULE - 3(a) - SPONSORED PROJECTS

Sr No	Name of the Project	Opening Balance		Receipts / Recoveries	Total	Expenditure during the	Closing Balance	
		Credit	Debit				Credit	Debit
67	GOI-Dept.of Space - Dr.Shirish H-Chemical	5744	0	0	5744	0	5744	0
68	SemiConductor-US-Prof.B.Laxmi-ECE	221404	0	0	221404	0	221404	0
69	DST-SERB-Dr.Veeresh Babu	18723	0	0	18723	0	18723	0
70	DST-SERB-Dr.P.V.Srilakshmi	0	140410	0	-140410	0	0	140410
71	GOI-DST-SERB-Dr.R.Padmavathy-CSE	19200	0	0	19200	0	19200	0
72	DRDO-Dr.Mani-ECE	121006	0	0	121006	0	121006	0
73	DRDO-Dr.B.Laxmi - ECE	131228	0	0	131228	0	131228	0
74	BRNS-Dev.Evaluation...Prof.NVS.Nages.M	84862	0	0	84862	0	84862	0
75	GOI-MCIT-ITRA-Prof.NVUmamahesh-civil	360206	0	0	360206	0	360206	0
76	DRDO-CARS-Dr.PSC.Bose-MED	190633	0	0	190633	0	190633	0
77	DST-GOI-SERB-Dr.K.Thangaraju	58981	0	0	58981	0	58981	0
78	DRDO-ER&IPR-Prof.GVS.Nageswar Rao	0	73242	0	-73242	0	0	73242
79	MOEF-Dr.Shirish H.Sonawane-Chemical	129990	0	0	129990	0	129990	0
80	DST-GOI-Dr.K. Venkat Reddy	73739	0	0	73739	0	73739	0
81	GOI-DRDL-Dr.A.Kumar - MED	7184	0	0	7184	0	7184	0
82	DRDA-CARS-Smt.B.Laxmi	1503	0	0	1503	0	1503	0
83	DST-MCIT-Dr. Shirish H Sonawane, Chemi	0	56000	0	-56000	0	0	56000
84	GoI-BRNS-Ajay Kumar Patel-CED	141377	0	0	141377	0	141377	0
85	GoI-SERB-Dr. Shashidhar Kumar, Chemistry	23318	0	0	23318	0	23318	0
86	GoI-SERB-FSERY-Dr.Y.Ravi Kumar, MED	1760944	0	0	1760944	0	1760944	0
87	GoI-SERB-Dr. D. Kashinath, Chemistry	1555	0	0	1555	0	1555	0
88	GoI-DST-MST-Dr.Hari Prasad, INSPIRE	277353	0	0	277353	0	277353	0
89	DRDO-ER&IPR-Dr.Sonawane - Chemicals	24825	0	0	24825	0	24825	0
90	UGC-Mohanbabu - Physics	15214	0	0	15214	0	15214	0
91	UGC-Mahendranath-Chemistry	3729	0	0	3729	0	3729	0
92	UGC-R. Rajkumar - Chemistry	4542	0	0	4542	0	4542	0
93	SERB-Dr.K.Narasimhulu-Biotech	21122	0	0	21122	0	21122	0
94	GoI-MSTBD-Dr.P.S.Rao-Biotech	429235	0	0	429235	0	429235	0
95	GoI-BRNS-Dr.T.S.Rao/GVS Rao-MMED	1818897	0	0	1818897	0	1818897	0
96	UGC-Mr.S.Nagaraju-Chemistry	180378	0	0	180378	0	180378	0
97	UGC-Mr.V. Ravi Babu-Chemistry	9126	0	0	9126	0	9126	0
98	UGC-Mr. Varun A - Chemistry	8	0	0	8	0	8	0
99	DRDO-Ministry of Defence-Dr.SHRao, ECE	98086	0	0	98086	0	98086	0

SCHEDULE - 3(a) - SPONSORED PROJECTS

Sr No	Name of the Project	Opening Balance		Receipts / Recoveries	Total	Expenditure during the	Closing Balance	
		Credit	Debit				Credit	Debit
100	DST-GoI-Design Dr.M.Amaravathi, Chemic	25109	0	0	25109	0	25109	0
101	DST-INSPIRE-G.Venkatasuman-Maths	239739	0	0	239739	0	239739	0
102	GoI-Biotech-Dr.P.Venkateswara Rao	89056	0	0	89056	0	89056	0
103	GoI-DST-Dr.Santanab Giri-INSPIRE-Chemi	7200	0	0	7200	0	7200	0
104	GoI-DST-Dr.K.Divakar-INSPIRE-Biotech	745049	0	0	745049	745049	0	0
105	CARS-Dr.T.Kishore Kumar-ECE	459251	0	0	459251	0	459251	0
106	DRDO-Dr.D.Vakula-ECE	0	1300	0	-1300	0	0	1300
107	Industry Sponsored - Prof.GVPC-Chemistry	178056	0	0	178056	33925	144131	0
108	BRNS-Dr.Kiran Kumar K-MED	728812	0	0	728812	0	728812	0
109	DRDO-Ministry of Defence-Dr.SHRao, ECE	0	565143	0	-565143	0	0	565143
110	DRDO-CARS-Dr. Sreehari Rao - ECE	446578	0	0	446578	0	446578	0
111	GoI-BRNS-Dr.T. Venkatappa Rao, Physics	34849	0	0	34849	0	34849	0
112	CSIR-Dr. R. Satish Babu - Biotech	100935	0	0	100935	0	100935	0
113	GoI–SERB–Dr.Ajey Kumar Patel – Civil	0	12064	0	-12064	0	0	12064
114	DRDO–NRB–Dr.PSC Bose – MED	134398	0	0	134398	0	134398	0
115	ISEA Project–II–Prof. Ramesh/Prof.DVLNS	1374889	0	0	1374889	8000	1366889	0
116	K Pack System–Dr.Shirish H Sonawane, Che	0	5143	0	-5143	0	0	5143
117	SERB–Dr.A. Venkata Ratnam, Civil	13529	0	0	13529	0	13529	0
118	SERB–Dr. Brahma Raju G, MMED	56575	0	0	56575	29166	27409	0
119	SERB–Dr. D. Jaya Krishna, CED	200	0	0	200	0	200	0
120	SERB–Dr. Urmila Saxena, Biotech	0	0	0	0	0	0	0
121	SERB–Dr. P. V. Suresh, Chemical	0	0	0	0	0	0	0
122	GoI–Ministry of Earth Scie–Dr.E.V.Ratnam	25212	0	0	25212	0	25212	0
123	GoI–MST–DST–Dr.Madhavi Latha Devi, Physi	88369	0	400000	488369	300000	188369	0
124	GoI–SERB–Dr.D.Kashinath–Chemistry	491386	0	0	491386	0	491386	0
125	GoI–SERB–Dr.Amitava Bandu, Biotech	66318	0	0	66318	0	66318	0
126	DRDO–CARs–Dr. D. Vakula–ECE	170240	0	0	170240	0	170240	0
127	CSIR Dr.Ch. Ram Reddy–Maths	16524	0	0	16524	0	16524	0
128	GoI–MHRD–Prof.I.A.K. Reddy–Chemistry	4463395	0	103850	4567245	3629701	937544	0
129	GoI–MHRD–Prof.I.A.K. Reddy–Chemistry	34657274	0	0	34657274	33472448	1184826	0
130	GoI–SERB–Dr. Prakash S – Biotech	100000	0	0	100000	0	100000	0
131	GoI–DST–Dr.Sachin Jain–EEE	116	0	0	116	0	116	0
132	GoI-SERB-Dr.Venkatatri Narayanan-Chem	333165	0	0	333165	20000	313165	0

SCHEDULE - 3(a) - SPONSORED PROJECTS

Sr No	Name of the Project	Opening Balance		Receipts / Recoveries	Total	Expenditure during the	Closing Balance	
		Credit	Debit				Credit	Debit
133	SMDP–C2SD–MCIT–Dr.P.Srihari Rao & KP–E	3389588	0	0	3389588	757070	2632518	0
134	GoI–SERB–Dr.D.Paul Joseph–Physics	756640	0	0	756640	0	756640	0
135	GoI–DST–MST–Dr.K.Hari Prasad–Chemistry	351031	0	0	351031	74256	276775	0
136	GoI–SERB–Dr.Hari Prasad – Chemistry	160953	0	0	160953	19845	141108	0
137	Visvesvarayya - PhD Scheme	0	0	7955635	7955635	7955635	0	0
138	UGC–DAE–CSR–Dr.R. Arocia Kumar–MMED	2419	0	0	2419	0	2419	0
139	DRDO–CARS–Dr.TKK–ECE	183703	0	0	183703	0	183703	0
140	GoI–SERB–Dr.T.Kishore Kumar–ECE	0	0	0	0	0	0	0
141	GoI–DRDO–CARs–Dr.S. Ravi Chandra–CSE	231747	0	0	231747	0	231747	0
142	India Govt. Mint–Dr.K. Anand Kishore–Che	2229	0	0	2229	0	2229	0
143	GoI–SERB–Dr.B.Srinivas Rao, MMED	0	22314	22314	0	0	0	0
144	GoI–SERB–Dr.B. Rama Raju, Biotech	20066	0	0	20066	342	19724	0
145	Geetam–SERB–Dr.P. Vamshi Krishna, MED	0	4472	0	-4472	0	0	4472
146	GoI–SERB–Dr.P. Syam Prasad, Physics	0	0	0	0	0	0	0
147	DST-FIST Programme - MED	9800	0	700020	709820	700020	9800	0
148	GoI-CAR-Dr. E. Venkata Ratnam - CED	20951	0	0	20951	0	20951	0
149	GoI–JPC–Ministry of Steel, MMED	678002	0	0	678002	0	678002	0
150	GoI–SERB–Dr.G.Raghavendra, MED	4372	0	0	4372	113861	0	109489
151	GoI–SERB–Dr.A. Benerji Babu, Maths	0	300012	0	-300012	239292	0	539304
152	GoI–MST–DST–INSPIRE Fellowship– K. Satis	35113	0	510448	545561	494398	51163	0
153	GoI–SERB–Dr.Karthik B – MED	1571489	0	0	1571489	1571489	0	0
154	GoI–MST–DST–Dr.RR Rout/Prof.DVLN Somayaj	73395	0	0	73395	73395	0	0
155	GoI–NTPC–NETRA–Dr.Arockia Kumar, MMED	164800	0	0	164800	197870	0	33070
156	GoI–SERB–Dr. P. Sreenivasa Rao, Biotech	1	0	0	1	0	1	0
157	GoI–SERB–Dr. V. Jayalakshmi, Physics	333252	0	0	333252	276675	56577	0
158	GoI–SERB–Dr.A. Sesha Giri Rao, Chemical	0	0	0	0	72588	0	72588
159	GoI–SERB–Dr.S. Shankar, CED	0	1841500	268974	-1572526	175000	0	1747526
160	GoI–MHRD–Dr.T.P.Tezeswi, CED	1841878	0	0	1841878	0	1841878	0
161	GoI–SERB–Dr.Ajoy Kumar Pandey, MMED	212184	0	500000	712184	475399	236785	0
162	GoI–SERB–Dr.Kusum Kumari, Physics	99542	0	176021	275563	44989	230574	0
163	GoI–SERB–Dr.Ravi Kumar Jatoth, ECE	11184	0	0	11184	0	11184	0
164	GoI–Ministry of Defence – Dr.CSPR/Dr.PSB	604140	0	0	604140	0	604140	0
165	GoI–SERB–Dr.T. Vinay Kumar, EEE	164081	0	0	164081	42834	121247	0

SCHEDULE - 3(a) - SPONSORED PROJECTS

Sr No	Name of the Project	Opening Balance		Receipts / Recoveries	Total	Expenditure during the	Closing Balance	
		Credit	Debit				Credit	Debit
166	GoI–SERB–Dr.J. Pranitha, Maths	90720	0	0	90720	0	90720	0
167	GoI–SERB–Dr.G. Naga Srinivasulu, MED	210176	0	0	210176	0	210176	0
168	GoI-BRNS-DAE-Dr.Sourabh Roy, Physics	587599	0	42000	629599	194480	435119	0
169	GoI-SERB-Dr.B. Nagu, EED	0	200706	0	-200706	757069	0	957775
170	GoI-SERB-Dr.Chandra Mohan V P, MED	93605	0	0	93605	375300	0	281695
171	DRDO-CARS-Dr.Udaya Bhasker-EEE	0	0	0	0	0	0	0
172	RCI-DRDO-Dr.V.V. Mani, ECE	55479	0	0	55479	0	55479	0
173	GoI-DST-MST-Dr.Kusum Kumari, Physics	2001347	0	51197	2052544	1319529	733015	0
174	GoI-ISRO-Dr.Venkat Reddy, CED	5000	0	0	5000	0	5000	0
175	IITM-Dr.D.Kalyan Kumar, CED	200000	0	0	200000	0	200000	0
176	GoI-AR&D (DRDO)-Dr.A.Venu Vinod, Chem	183761	0	0	183761	183240	521	0
177	GoI-SERB-Dr.B.Satish Ben, MED	608707	0	0	608707	632883	0	24176
178	GoI-SERB-Dr.Arockiakumar Raju-MMED	4644843	0	0	4644843	4460662	184181	0
179	GoI-SERB-Dr.S.Kanmani Subbu, MED	2925000	0	0	2925000	0	2925000	0
180	GoI-SERB-Dr.V.V.Mani-ECE	26256	0	0	26256	8043	18213	0
181	GoI-SERB-Dr.Syed Ismail, MED	0	1785933	0	-1785933	282420	0	2068353
182	GoI-BIRAC-SRISTI-Dr.Shirish H S, Chemica	243414	0	0	243414	237977	5437	0
183	GoI-SERB-Dr.Kirubakaran-EED	889527	0	400000	1289527	508890	780637	0
184	GoI-DST-Inspire Fellowship-VDRPavan, Phy	32508	0	521455	553963	517097	36866	0
185	GoI-DST-Inspire Fellowship-Srikanth G,	278916	0	982520	1261436	798680	462756	0
186	GoI-DRDO(AR&DB)-Dr.A.Kumar-MED	393600	0	0	393600	249260	144340	0
187	GoI-SERB-Dr.S.Srinivasa Rao-EED	674645	0	0	674645	349059	325586	0
188	GoI-SERB-Dr.Sourach Roy-Physics	224431	0	0	224431	0	224431	0
189	UGC-DAE-CSR-Prof.GVS Nageswara Rao	42798	0	215760	258558	296160	0	37602
190	GoI-CARS-DRDO-Dr.P.Srihari Rao-ECE	0	0	0	0	0	0	0
191	GoI-CARS-Dr.PSrihariRao&Dr.S.AnuradhaECE	12990	0	0	12990	0	12990	0
192	GoI-DST-MST-Dr.Kanmani Subbu-MED	121845	0	539491	661336	444803	216533	0
193	CSIR-Dr.AmitavaBandhu-Biotech	191737	0	0	191737	180000	11737	0
194	GoI-SERB-Dr.TKK-ECE	632504	0	0	632504	395560	236944	0
195	GoI-MST-DST-Dr.SHS-Chemical	89292	0	22550	111842	111839	3	0
196	GoI-DST-Dr. P. Venkata Suresh, Chemical	0	0	0	0	0	0	0
197	RINL-Visakha Steel-PSCBose/CSP Rao-MED	339	0	511891	512230	512214	16	0
198	GoI-SERB-Dr.VT Somasekhar-EED	1401295	0	13305	1414600	1412517	2083	0

SCHEDULE - 3(a) - SPONSORED PROJECTS

Sr No	Name of the Project	Opening Balance		Receipts / Recoveries	Total	Expenditure during the	Closing Balance	
		Credit	Debit				Credit	Debit
199	GoI-MD(AR&D)-DRDO-Dr.TP Tezeswi-CED	1179055	0	0	1179055	256200	922855	0
200	GoI-SERB-Dr.SHS-Chemical	752813	0	500000	1252813	220433	1032380	0
201	GoI-SERB-Dr.V.Kohila-Biotech	270542	0	0	270542	333715	0	63173
202	GoI–SERB–Dr.P. Syam Prasad, Physics	134383	0	700000	834383	700145	134238	0
203	GoI–SERB–Dr.S. Anuradha, ECE	213066	0	450000	663066	466319	196747	0
204	GoI–MST–Travel Grants, D. Naresh Yadav	92900	0	0	92900	0	92900	0
205	GoI–SERB–Dr.K. Venkat Reddy, CED	638125	0	0	638125	522981	115144	0
206	GoI(IUSSTF)–DST–Dr.Kusum Kumari, Phy	0	0	0	0	0	0	0
207	CSIR–Dr. D. Srinivas–Chemistry	326910	0	0	326910	369933	0	43023
208	GoI–MOIL–Prof.L.Anjaneyulu–ECE	124642	0	0	124642	3540	121102	0
209	GoI–NMP–AUSE–Prof.GVS Nageswara Rao	7717341	0	2850858	10568199	14098867	0	3530668
210	GoI–SERB–Dr.Narasimha Raju–EEE	495044	0	0	495044	700650	0	205606
211	GoI–SERB–Dr.P.Abdul Azeem, Physics	0	305179	0	-305179	586337	0	891516
212	GoI–SERB–Dr.Satish Kumar–EED	0	163279	0	-163279	34059	0	197338
213	New Land Laboratory Ltd., –Dr.Srinath	5846	0	0	5846	0	5846	0
214	AUSC–IGCAR–Dr.N.Narsaiah–MMED	0	5749313	13399130	7649817	5118706	2531111	0
215	AUSC–IGCAR–Dr.Ajey Kumar Panday, MMED	0	51644835	0	-51644835	1376416	0	53021251
216	MoU–Hexagon&NITW–Prof.A.V. Gopal, MED	5000	0	0	5000	0	5000	0
217	AUSC–IGCAR–Dr.GVSNageswara Rao	12949495	0	2246590	15196085	16759013	0	1562928
218	GoI–DST–MST–Dr.Vamshi Krishna–MED	589673	0	324958	914631	862445	52186	0
219	GoI–IITM–Prof.M.V. Umamahes/Dr.Venka	951156	0	0	951156	1703342	0	752186
220	GoI–CARS–Prof.NVSNSarma/Dr.D.Vakula	0	9000	0	-9000	0	0	9000
221	GoI–DST–MST–Dr.Anish Karmakar,MMED	0	0	0	0	0	0	0
222	IEI–R&D Cell–Dr. Jaya Krishna, MED	650	0	0	650	24497	0	23847
223	GoI–MST–DST–Dr.S H Sonawane, Chemical En	182518	0	0	182518	403538	0	221020
224	GoI–DST–MST(INSPIRE)–Dr.J.Prakash	223084	0	0	223084	187293	35791	0
225	AUSC–IGCAR–Dr.GVSNRao–MMED	13754622	0	1547359	15301981	18121901	0	2819920
226	GoI–DST–MST–Prof.N.Narsaiah,MMED	2624983	0	0	2624983	502292	2122691	0
227	GoI–SERB–Dr.V.Anitha–CED	92490	0	0	92490	581025	0	488535
228	GoI–DST–MST–Archana Bhat–Maths	239854	0	0	239854	193650	46204	0
229	GoI–DST–MST–RaghavendraPSingh–Mat	198134	0	435662	633796	183942	449854	0
230	CPRI–Dr.S.Sreenivasa Rao–EED	331525	0	0	331525	648253	0	316728
231	GoI–DST–MST–Dr.J.Ravi Kumar–ECE	2241348	0	0	2241348	1386327	855021	0

SCHEDULE - 3(a) - SPONSORED PROJECTS

Sr No	Name of the Project	Opening Balance		Receipts / Recoveries	Total	Expenditure during the	Closing Balance	
		Credit	Debit				Credit	Debit
232	ICSSR–Dr.G.Sunitha–SoM	54672	0	0	54672	75000	0	20328
233	GoI–DST–MST–Dr.Venkat Reddy K–CED	0	0	9642	9642	0	9642	0
234	GoI–DST–Dr.Vijay Kumar M–MED	520623	0	0	520623	88838	431785	0
235	AICTE–Prof.D.Srinivasa Charya, Maths	570000	0	0	570000	0	570000	0
236	GoI–SERB–Dr.Suresh Babu–EED	532877	0	0	532877	403000	129877	0
237	GoI–SERB–Dr.Prakash Saudagar–Biotech	341453	0	900000	1241453	531078	710375	0
238	GoI–SERB–Dr.K.Narasimhulu–Biotech	275000	0	0	275000	49960	225040	0
239	GoI–SERB–Dr.G.Udaya Bhaskar Babu	18428	0	714926	733354	515976	217378	0
240	GoI–SERB–Dr.Vinay Kumar, EEE	388719	0	629080	1017799	743251	274548	0
241	GoI–SERB–DST–Prof.P.V.Srilakshmi	773999	0	0	773999	904285	0	130286
242	GoI–SERB–Dr.Raghu Chitta, Chemistry	1893401	0	1000000	2893401	1349791	1543610	0
243	GoI–SERB–Dr.Arun Kumar G, ECE	1200326	0	0	1200326	254456	945870	0
244	GoI–SERB–Dr.Vasu V, MED	270376	0	0	270376	389927	0	119551
245	GoI–SERB–Dr.S. Nagarajan, Chemistry	738735	0	0	738735	791808	0	53073
246	GoI–SERB–Dr.Ravinder Pawar, Chemistry	2409281	0	0	2409281	1954641	454640	0
247	GoI-DST-Dr.K.Venkat Reddy-CED	757464	0	0	757464	770251	0	12787
248	GoI–DRDO(CARS)–Dr.D.Vakula	0	0	0	0	0	0	0
249	GoI–SERB–Dr.K.Hari Prasad, Chemistry	741065	0	800000	1541065	1069483	471582	0
250	GoI–MBDB–Dr.T.V.Appa Rao–Physics	2360875	0	1127500	3488375	531335	2957040	0
251	GoI-ICSSR-MHRD-Dr.Madhumathi P-HSS	93636	0	300000	393636	314242	79394	0
252	GoI–NTPC Ltd.,–Dr.G. Sunitha–SoM	0	0	0	0	0	0	0
253	GoI–SERB—Dr.S.Porpandi Selvi –EED	1188502	0	0	1188502	1717224	0	528722
254	GoI–SERB–Dr.R.Rakesh Kumar, Physics	218870	0	0	218870	218869	1	0
255	GoI–SERB–Dr.Ratna Prabha D, Biotech	434099	0	500000	934099	341000	593099	0
256	GoI–SPARC–MHRD–Dr.Nagarajan D, Chemi	0	9373	0	-9373	0	0	9373
257	GoI–SPARC–MHRD–Dr.Murali Mohan S, Che	428640	0	0	428640	161403	267237	0
258	GoI–SPARC–MHRD–Dr.NagaSrinivasulu G	2057970	0	0	2057970	122914	1935056	0
259	GoI–SPARC–MHRD–Dr.K.Venkat Reddy	0	471406	0	-471406	0	0	471406
260	GoI–SPARC–MHRD–Dr.NagaSrinivasulu G	567200	0	0	567200	0	567200	0
261	GoI–SPARC–MHRD–Dr.V.V.Mani, ECE	550566	0	0	550566	320557	230009	0
262	GoI–SPARC–MHRD–Dr.Narasimharaju BL	490174	0	0	490174	5560	484614	0
263	GoI–SPARC–MHRD–Dr.Sreehari Rao P,ECE	660750	0	0	660750	0	660750	0
264	GoI–SPARC–MHRD–Dr.Kartik B, MED	275077	0	0	275077	0	275077	0

SCHEDULE - 3(a) - SPONSORED PROJECTS

Sr No	Name of the Project	Opening Balance		Receipts / Recoveries	Total	Expenditure during the	Closing Balance	
		Credit	Debit				Credit	Debit
265	GoI–SPARC–MHRD–Dr.Narasimha Rao R	433251	0	0	433251	208659	224592	0
266	GoI–DST–Dr. Raju Bukya, CSE	28854	0	0	28854	0	28854	0
267	GoI–CPRI–Dr.S.Porpandi Selvi–EED	438525	0	0	438525	532255	0	93730
268	GoI–MST–DST–Dr.A. Kumar, MED	485702	0	15350	501052	121818	379234	0
269	GoI–DST–Dr. Suresh Babu E, CSE	37313	0	0	37313	0	37313	0
270	GoI–SERB–Dr. L. Anjaneyulu, ECE	191841	0	0	191841	95467	96374	0
271	GoI–DST–MST–Head, Chemistry	11400000	0	0	11400000	446040	10953960	0
272	SPARC–Overhead & Contingency	702887	0	0	702887	24638	678249	0
273	GTRE–Dr. Srish H Sonawane, Chemical	356278	0	0	356278	204091	152187	0
274	GoI–AICTE–Dr.Bhukya Raju, CSE	0	0	0	0	0	0	0
275	GoI–DST–Dr.Ravi Kumar Jatoth, ECE	82360	0	0	82360	82360	0	0
276	GoI–DST–Dr.Vijay Kumar, MED	11321	0	0	11321	16800	0	5479
277	Humanities Miscellaneous Charges	0	0	0	0	0	0	0
278	AICTE(ATAL)–Dr.B.Spoorthy, H&SS	0	0	186000	186000	186000	0	0
279	GoI–DST(ACST)–Dr.D. Kashinath, Chemist	0	0	0	0	0	0	0
280	AICTE(ATAL)–Dr.RBV Subramanyam, CSE	162000	0	0	162000	0	162000	0
281	AICTE(ATAL)–Dr. M. Srinivas, CSE	162000	0	0	162000	0	162000	0
282	CSIR-Travel Grant-R. Beekya Naik, Chemic	0	0	0	0	0	0	0
283	ICSSR–Dr.V. Rama Devi, SoM	196000	0	0	196000	288366	0	92366
284	AICTE(ATAL)–Dr.Y. Ravi Kumar, MED	0	0	93000	93000	93000	0	0
285	GoI–SERB–Dr.T.P. Tezeswi, CED	1336830	0	0	1336830	179722	1157108	0
286	GoI–SERB–Dr.Manohar K, Chemical	1864296	0	0	1864296	2216701	0	352405
287	GoI–SERB–Dr. Shirish H Sonawane, Che	1021269	0	150000	1171269	479259	692010	0
288	GoI–SERB–Dr. Narasimha Raju BL, EED	3432430	0	0	3432430	3807053	0	374623
289	GoI-CSIR-Dr E Satyanrayana	0	0	602000	602000	0	602000	0
290	GoI-SERB-Dr Ravinder Pawar Chemistry	0	0	0	0	1002014	0	1002014
291	GoI-SERB-Dr Raju Bhukya, ECE	0	0	0	0	1770950	0	1770950
292	AICTE(ATAL)–Dr. Raju Bhukya, CSE	0	0	465000	465000	464640	360	0
293	CSIR-SRF Grants - Vishnu VJ Physics	0	0	0	0	16082	0	16082
294	GoI-SERB-Dr V Sridevi-MMED	0	0	0	0	48263	0	48263
295	GoI-SERB-Dr Sourbh Roy-Physics	0	0	0	0	138046	0	138046
296	INSA Travel Grant–Dr.Seshagiri Rao, Chem	0	0	0	0	0	0	0
297	GoI–BHEL–Dr.B.Srinivas,–MMED	354000	0	0	354000	202580	151420	0

SCHEDULE - 3(a) - SPONSORED PROJECTS

Sr No	Name of the Project	Opening Balance		Receipts / Recoveries	Total	Expenditure during the	Closing Balance	
		Credit	Debit				Credit	Debit
298	GoI–DST–MST–Dr.C.B.K./Dr.KK–CED	16000000	0	0	16000000	0	16000000	0
299	GoI-CARS-DRDO-Dr-K-Madhu murthy	0	0	249978	249978	9160	240818	0
300	GoI-AICTE-(ATAL) Dr. Sanjay Kumar	0	0	93000	93000	93000	0	0
301	GoI-SERB- DST-Dr.V.V.Mani.	0	0	1446096	1446096	0	1446096	0
302	GoI-SERB-DST-Dr.B.S.B-MED	0	0		0		0	0
303	GoI-SERB-SRG-Dr.Chayan Bhar- ECE	0	0	0	0	1994	0	1994
304	GoI-SERB-DST-Dr.R.Ramesh nayaka-CED	0	0		0		0	0
305	GoI-SERB-Dr. Vinay Kumar - EED	0	0	0	0	833196	0	833196
306	GoI-SERB-DST-Dr.Palash Mishra-EED	0	0	0	0	122750	0	122750
307	GOI-SERB-DR.Rajeshkumar- chem	0	0	0	0	20000	0	20000
308	GoI-SERB-Dr.K.Anand Kishore-Chem	0	0		0		0	0
309	GoI-SERB-Dr.Kishant Kumar-Chem	0	0	0	0	46948	0	46948
310	GoI-(ISRDC) DR.RAVICHANDRA ,CSE	0	0	735000	735000	0	735000	0
311	GoI-DST-INSPIRE- DR.Mukul Pradhan - Chem	0	0	2539952	2539952	1314268	1225684	0
312	CCPD-K Kiran Kumar- MED	0	0	0	0	943522	0	943522
313	GoI-SERB-DR.Haranath D, Physics	0	0	75000	75000	75000	0	0
314	GoI--DRDO-ARDB-Dr. Shivraman, MED	0	0	1240000	1240000	11071	1228929	0
315	GoI-SERB- Dr.KNaga Srinivasarao B, ECE	0	0	1299280	1299280	2208009	0	908729
316	GoI-FIST-PROGRAM- Head of Physics Dept,	0	0	18000000	18000000	0	18000000	0
317	GoI-SERB-Dr.UmaMaheswaraRaoS-MMED	0	0		0		0	0
318	GoI-SERB-DST-Dr.A. Sesha Giri Rao, Chem	0	0	4105555	4105555	3500000	605555	0
319	GOI-SERB-Dr.S.Venkateswara Rao	0	0		0		0	0
320	GoI-SERB-Dr.P.Deepak Reddy -EED	0	0	0	0	545670	0	545670
321	GoI-CARS-Dr.Veeresh Babu-MED	0	0	500000	500000	0	500000	0
322	GoI-SERB-Dr.Anant Kumar Rai-MED	0	0		0		0	0
323	GoI-NHAI-Dr. Hari Krishna- CED	0	0	1190400	1190400	0	1190400	0
324	GoI-SERB-Dr.Surya Kanta Ghosh-Physics	0	0	0	0	9699	0	9699
325	RS-918-GoI-AUSC-Dr.GVSNRAO-MMED	0	0	350000	350000	17690	332310	0
326	GoI-ICSSR-SRC-OU-HYD-DR.RR-SOM	0	0		0		0	0
327	GoI-DST-Dr. Shirish H Sonawane, Chemica	0	0	1415421	1415421	0	1415421	0
328	GoI-MST-DST-Dr.V.Rajesh Kumar, Chemistry	0	0	1020306	1020306	0	1020306	0
329	ICSSR-Dr.V.Spoorthy, SoM	0	0	80000	80000	0	80000	0
330	GoI-PCDA(R&D)-Dr.Chandra Mohan, MED	0	0	523884	523884	0	523884	0

SCHEDULE - 3(a) - SPONSORED PROJECTS

Sr No	Name of the Project	Opening Balance		Receipts / Recoveries	Total	Expenditure during the	Closing Balance	
		Credit	Debit				Credit	Debit
331	GoI-DST-MST-R.Naresh, Maths	0	0	451520	451520	0	451520	0
332	GoI-CET-Dr.S.Porpandi Selvi, EED	0	0	21450	21450	21450	0	0
	Total	**224103927**	**63398013**	**82834602**	**243540516**	**168725107**	**154400881**	**79585472**

NATIONAL INSTITUTEOF TECHNOLOGY, WARANGAL
RESEARCH SCHEMES ACCOUNT
INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2021

INCOME	SCHEDULE	Current Year	Previous Year
Academic Receipts	9	0	0
Garnts / Subsidies	10	0	0
Income from Investments	11	2103150	6376275
Interest Earned	12	0	0
Other Income	13	0	348185
Prior Period Income	14	0	0
TOTAL (A)		**2103150**	**6724460**
EXPENDITURE			
Staff Payments & Benefits (Establishment Expenses)	15	0	0
Academic Expenses	16	0	0
Administrative and General Exp	17	0	0
Transportation expenses	18	0	0
Reparis & Maintenance	19	0	0
Finance Cost	20	0	0
Depreciation	4	0	0
Other Expenses	21	7648208	0
Prior Period Expenses	22	0	0
TOTAL (B)		**7648208**	**0**
Balance being excess of Income over Expenditure (A-B)		-5545058	6724460
Transfer to / from Designated Fund		0	0
Building Fund		0	0
Others if Any		0	0
Balance being surplus (Deficit) carried to General Fund		**-5545058**	**6724460**
Notes on Accounts	22		

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL
RESEARCH SCHEMES ACCOUNT
SCHEDULES FORMING PART OF INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR 2020 - 21

SCHEDULE 11- INCOME FROM INVESTMENTS

	Earmarked / Endowment Funds		Other Investments	
	CURRENT YEAR	PREVIOUS YEAR	CURRENT YEAR	PREVIOUS YEAR
1. Interest				
a) On Govt. Securities	0	0	0	0
b) Other Bonds/ Debentures	0	0	0	0
2. Interest on Term Deposits	0	0	2103150	6376275
3. Income accrued but not due on Term Deposits / Interest bearing advances to employees	0	0	0	0
4. Interest on Savings Bank Accounts	0	0	0	0
4. Others (Specify)	0	0	0	0
TOTAL	**0**	**0**	**2103150**	**6376275**
TRANSFERRED TO EARMARKED/ ENDOWMENT FUNDS	**0**	**0**		

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

RESEARCH SCHEMES ACCOUNTS

SCHEDULES FORMING PART OF INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR 2020 - 21

SCHEDULE 13- OTHER INCOME

A.Income from Land & Building	**CURRENT YEAR**	**PREVIOUS YEAR**
1. Hostel Room Rent	0	0
2. License fee	0	0
3. Hire Charges of Auditorium/Play ground/Convention Centre,etc.	0	0
4. Electricity Charges recovered	0	0
5. Water Charges recovered	0	0
Total (A)	**0**	**0**
B. Sale of Institute's Publications	**0**	0
C. Income from from holding events		
1.Gross Receipts from annual function/sports carnival	0	0
Less : Direct Expenditure incurred on the annual function/sports carnival	0	0
2. Gross Receipts from fetes	0	0
Less : Direct Expenditure incurred on the fetes	0	0
3. Gross Receipts for educational tours	0	0
Less : Direct Expenditure incurred on the tours	0	0
4. Others (to be specified and separately disclosed)	0	0
TOTAL(C)	**0**	**0**
D. Others		
1. Income from Consultancy	0	0
2. RTI Fees	0	0
3. Income from Royalty	0	0
4. Sale of application form (recruitment)	0	0
5. Misc. receipts (Sale of tender form, waste paper, etc.)		
6. Profit on Sale/ Disposal of Assets:		
a) Owned Assets	0	0
b) Assets acquired out of grants, or received free of cost	0	0
7. Grants / Donations from Institutions, Welfare Bodies and International Organizations	0	0
8. Others (Specify) - Interest transferred to Research Projects	0	348185
TOTAL(H)	**0**	**348185**
GRAND TOTAL (A+B+C+D+E+F+G+H)	**0**	**348185**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

RESEARCH SCHEMES ACCOUNTS

SCHEDULES FORMING PART OF INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR 2020 - 21

SCHEDULE 21- OTHER EXPENSES	CURRENT YEAR			PREVIOUS YEAR		
	PLAN	NON PLAN	TOTAL	PLAN	NON PLAN	TOTAL
a) Provision for Bad and Doubtful Debts/ Advances	0	0	0	0	0	0
b) Irrecoverable Balances Written-off	0	0	0	0	0	0
c) Grants / Subsidies to other Institutions / Organizations	0	0	0	0	0	0
c) Others (Specify) - Interest transferred to Research Projects	0	7648208	7648208	0	0	0
TOTAL	**0**	**7648208**	**7648208**	**0**	**0**	**0**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL
RESEARCH SCHEMES ACCOUNT
RECEIPTS AND PAYMENTS FOR THE YEAR ENDED 31-03-2021

(Amount in Rupees)

RECEIPTS	Current Year	Previous Year	PAYMENTS	Current Year	Previous Year
I. Opening Balances:			**I. Expenses**		
a) Cash in hand			a) Establishment Expenses	0	0
b) Bank Balances			b) Academic Expenses	0	0
--- SBI NITW SB A/c	94904367	122054215	c) Administrative Expenses	0	0
			d) Transportation Expenses	0	0
II. Grants Received			e) Repairs & Maintenance	0	0
a) GOI - MHRD Grants	0	0	f) Prior Period Expenses	0	0
b) GOI - MHRD COE Grants	0	0			
			II. Payments made against Earmarked / Endowment Funds		
III. Academic Receipts	0	0	--- Earmarked Fund	0	0
			--- Endowment Fund	0	0
IV. Receipts against Earmarked / Endowment Fund	0	0	**III. Payments against Sponsored Projects / Schemes**	168725107	293716032
V. Receipts against Sponsored Projects / Schemes	82834602	204223717	**IV. Payments against Sponsored Felllowships / Scholarships**	0	0
VI. Receipts against Sponsored Fellowships and Scholarships	0	0	**V. Investments and Deposits made**		
			a) Out of Earmarked / Endowments funds	0	0
VII. Income on Investments from			b) Out of Own funds	0	0
--- Earmarked / Endowment Funds	0	0			
--- Other Investments	0	0	**VI. Term Deposits with Scheduled Banks**	0	0
			VII. Expenditure on Fixed Assets and Capital Works - in - Progress		
VIII. Interest received on					
--- Bank Deposits	2103150	6376275	a) Fixed Assets	0	0
--- Loand and Advances	0	0	b) Capital Work - in - Progress	0	0
--- Savings Bank Account	0	0			
			VIII. Other Payments including statutory payments		
IX. Investment encashed	0	0			
X. Term Deposits with Scheduled Banks encashed	0	0	--- Income Tax	23999	130000
XI. Other Income (including PPI)			--- Professional Tax	116300	150000
--- Income from L & B	0	0	--- GST / TDS	0	1563139
--- Other Income			**IX. Refunds and Grants**	0	0
			X. Deposits and Advances		
XII. Deposits & Advances			--- NIT Warangal	0	0
--- NIT, Warangal	0	0	--- Advances Accounts	6968479	5061382
--- Advances Accounts	37371336	4693531	--- FDD Suspense Account	0	297049
--- FDD / LC Suspense Account	0	196342914	--- LC Suspense Account	0	139055081
XIII. Miscelleneous Receipts including Statutory Receipts			**XI. Other Payments**	0	0
--- Income Tax	91967	140900	--- Interest transfer to Research Projects	7648208	
--- Professional Tax	119500	137100	--- RS Suspense Account	759870	
--- Miscelleneous Receipts	0	348185	**XII. Closing Balances**		
--- GST / TDS	210140	560213	a) Cash in hand	0	0
XIV. Any Other Receipts	0	0	**b) Bank Balances**		
			--- SBI NITW SB A/c	33393099	94904367
	217635062	**534877050**		**217635062**	**534877050**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL
PROVIDENT FUND ACCOUNT
BALANCE SHEET AS AT MARCH 31, 2021

.

(Amount in Rupees)

LIABILITIES	Current Year	Previous Year	ASSETS	Current Year	Previous Year
GPF:			**Investments**	329348869	308532843
Opening Balance	320651613	281306032			
Less: Subscription for March 2020	0	0	**Interest accrued as on March, 2021**	7800900	10333558
Add: Subscriptions in the year	39255047	51023756			
Add: Subscriptions for March 2021	0	0	**Subscription Due for March, 2021**		
Add Interest Credited	19254287	20299688	--- GPF	0	0
Less: Advance / withdrawl	-28429039	-31977863	--- CPF	0	0
Closing Balance	350731908	320651613	--- UC due to CPF	0	0
			--- NPS - II	0	0
CPF:					
Opening Balance	0	0	Tax recovered from interest on investme-	0	0
Less: Subscription for March 2020	0	0	nts pending refund from Income tax dept		
Add: Subscriptions in the year	0	0			
Add: Subscriptions for March 2021	0	0	**Cash at Bank**		
Add Interest Credited	0	0	--- SBI SB Account	17608436	6688783
Less: Advance / withdrawl	0	0			
Closing Balance	0	0			
NPS Tier- II Account					
Opening Balance	1592182	421739			
Less: Subscription for March 2020	0	0			
Add: Subscriptions in the year	36147865	32405268			
Add: Subscriptions for March 2021	0	0			
Add Interest Credited	0	0			
Less: Advance / withdrawl	-36345198	-31234825			
Closing Balance	1394849	1592182			
University Contribution (NPS):					
Opening Balance	2698131	588188			
Less: Subscription for March 2020	0	0			
Add: Subscriptions in the year	50607298	44358601			
Add: Subscriptions for March 2021	0	0			
Add Interest Credited	0	0			
Less: Advance / withdrawl	-50867059	-42248658			
Closing Balance	2438370	2698131			
Interest Reserve					
Opening Balance	613258	791508			
Add: Excess of Income over Exp	-420180	-178250			
ClosingBalance	193078	613258			
	354758205	**325555184**		**354758205**	**325555184**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL
PROVIDENT FUND ACCOUNT
INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31-03-2021

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(Amount in Rupees)

EXPENDITURE	Current Year	Previous Year	INCOME	Current Year	Previous Year
Interest credited to			Interest Earned on Investements inclu-	550739	287839
--- GPF Account	19254287	20299688	ding Savings Bank Account		
			Add: Interest accrued on 03/2021	7800900	205964
--- CPF Account	0	0	Add: Interest received during the year	10482468	19627635
			Add: Tax recovered on Interest -Refund	0	0
--- University Contribution (NPS)	0	0	to be obtained		
--- NPS Tier - II Account	0	0	Less: Interest accrued for 03/2020	0	0
Bank Charges / Miscelleneous Exp	0	0			
Excess of Income over Expenditure	0	0	Excess of Expenditure over Income	420180	178250
	19254287	**20299688**		**19254287**	**20299688**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL
PROVIDENT FUND ACCOUNT
RECEIPTS AND PAYMENTS FOR THE YEAR ENDED 31-03-2021

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(Amount in Rupees)

RECEIPTS	Current Year	Previous Year	PAYMENTS	Current Year	Previous Year
Opening Balances:			**GPF Advance / Withdrawn**	28429039	31977863
a) Cash in hand	0	0			
b) Bank Balances			**CPF Advance / Withdrawn**	0	0
--- SBI SB Account	6688783	4074665			
			NPS Tier - II	36345198	31234825
G P F Subscription	39255047	51023756			
			University Contribution Withdrawl	50867059	42248658
C P F Contribution	0	0			
			Term Deposits with Scheduled Banks	0	20000000
C P F University Contribution(NPS)	50607298	44358601			
			Bank Charges / Misc Charges	0	0
NPS Tier II Account	36147865	32405268			
			Closing Balances		
Term Deposits with Scheduled Banks encashed	0	0	a) Cash in hand	0	0
			b) Bank Balances		
Interest Received			--- SBI SB Account	17608436	6688783
a) Interest on STDR's	0	0			
b) Interest on SB Account	550739	287839			
	133249732	**132150129**		**133249732**	**132150129**

NATIONAL INSTITUTEOF TECHNOLOGY, WARANGAL
TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME - III
BALANCE SHEET AS AT 31-03-2021

(Amount in Rupees)

SOURCES OF FUNDS	SCHEDULE	Current Year	Previous Year
Corpus / Capital Fund	**1**	3087067	22492533
Designated / Earmarked / Endowment Funds	**2**	0	0
Current Liabilities & Provisions	**3**	210000	210000
TOTAL	**-**	**3297067**	**22702533**
APPLICATION OF FUNDS			
Fixed Assets	**4**		
-- Tangible Assets		0	19659459
-- Intangible Assets		0	0
-- Capital Work in progress		0	0
Investments	**5**		
-- Long Term		0	0
-- Short Term		0	0
Investments - Others	**6**	0	0
Current Assets	**7**	3087429	2833436
Loans, Advanes & Deposits	**8**	209638	209638
TOTAL		**3297067**	**22702533**
Significant Accounting Policies	**23**		
Contingent Liabilities and Notes to Accounts	**24**		

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL
TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME - III
SCHEDULES FORMING PART OFBALANCE SHEET AS AT 31-03-2021

SCHEDULE 1- CORPUS FUND / CAPITAL FUND	CURRENT YEAR	PREVIOUS YEAR
Balance as at the beginning of the year	22492533	1373018
Add: Contributions towards Corpus / Capital Fund	0	19659459
Add: Grants from UGC, GOI and State Government to the extent utilized for capital expenditure	0	0
Less: Assets purchased in the earliers years wrongly capitalized not reversed	-19659459	0
Add: Assets purchased out of Sponsored Projects where owne-rship vests in the institution	0	0
Add: Assets Donated / Gifts Received	0	0
Add: Other Addition	0	0
Add: Excess of Income over expenditure transferred from Inc-ome & Expenditure Account	253993	1460056
	3087067	22492533
Ded: Deficit of Incover over Expenditure transerred from Inco-me & Expenditure Account	0	0
Balance at the year end	**3087067**	**22492533**

SCHEDULE 3 - CURRENT LIABILITIES & PROVISIONS	CURRENT YEAR	PREVIOUS YEAR
A. CURRENT LIABILITIES		
1. Deposits from staff		
2. Deposits from students		
3. Sundry Creditors		
a) For Goods & Services	0	0
b) Others	0	0
4. Deposits - others (including EMD, Security deposit)	0	0
5. Statutory Liabilities(GPF, TDS, WC TAX, CPF, GIS, NPS):		
a) Overdue	0	0
b) Others		
7. Other Current Liabilities:		
a) Salaries	0	0
b) Receipts against sponsored projects	0	0
c) Receipts against sponsored fellowships & scholarships	0	0
d) Unutilised Grants	0	0
e) Grants in advance	0	0
f) Other funds - Advances from NIPU & NIT Warangal	210000	210000
g) Other liabilities - Advance from staff	0	0
TOTAL (A)	210000	210000

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL
TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME - III
SCHEDULES FORMING PART OFBALANCE SHEET AS AT 31-03-2021

B. PROVISIONS		
1. For Taxation	0	0
2. Gratuity	0	0
3. Superannuation/ Pension	0	0
4. Accumulated Leave Encashment	0	0
5. Trade Warranties/ Claims	0	0
6. Others (Specify)	0	0
TOTAL (B)	0	0
TOTAL (A+B)	210000	210000

SCHEDULE 7 - CURRENT ASSETS	**CURRENT YEAR**	**PREVIOUS YEAR**
1. Stock:		
a) Stores and Spares		
--- Stores and Spares	0	0
--- Loose Tools	0	0
--- Publications	0	0
--- Laboratory chemicals, consumables and glassware	0	0
--- Building Material	0	0
--- Electrical Material	0	0
--- Stationery	0	0
--- Water supply material	0	0
2. Sundry Debtors:		
a) Debts outstanding for a period exceeding six months	0	0
b) Others		
3. Cash and Bank Balances		
a) Cash Balance in hand(incl cheques / drafts and imprest)		
- Main Cash Balance	0	0
- Petty Cash Balance	0	0
- Imprest with department	0	0
b) With Scheduled Banks:		
- In Current Accounts	3087429	2833436
- In Term Deposit Accounts - **STDR**	0	0
- In Savings Accounts	0	0
c) With Non-Scheduled banks:		
- In Current Accounts	0	0
- In Term Deposit Accounts	0	0
- In Savings Accounts	0	0
4. Post Office- Savings Accounts	0	0
TOTAL	3087429	2833436

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL
TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME - III
SCHEDULES FORMING PART OFBALANCE SHEET AS AT 31-03-2021

SCHEDULE 8 - LOANS, ADVANCES & DEPOSITS	CURRENT YEAR	PREVIOUS YEAR
1. Advances to employees (Non-interest bearing):		
a) Salary	0	0
b) Festival	0	0
c) LTC	0	0
d) Others (to be specified)	209638	209638
2. Long Term Advances to employees (Interest bearing)		
a) Vehicle loan	0	0
b) Home Loan	0	0
c) Others (to be specified)	0	0
3. Advances and other amounts recoverable in cash or in kind or for value to be received:		
a) On Capital Account	0	0
b) To Suppliers	0	0
c) Others		
--- Advance receivable	0	0
4. Prepaid Expenses		
a) Insurance	0	0
b) Other Expenses	0	0
5. Deposits		
a) Telephone	0	0
b) Lease Rent	0	0
c) Electricity	0	0
d) AICTE, if applicable	0	0
e) Others(to be specified)		
6. Income Accrued:		
a) On Investments from Earmarked/ Endowment Funds	0	0
b) On Investments- Others	0	0
c) On Loans and Advances	0	0
d) Others (includes income due unrealized)	0	0
7. Other Current Assets receivable from UGC / sponsored projects		
a) Debit balances in Sponsored Projects	0	0
b) Debit balances in Sponsored Fellowship & Scholarship	0	0
c) Grants Recoverable	0	0
d) Other receivables from UGC	0	0
8. Claims Receivable	0	0
TOTAL	**209638**	**209638**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL
TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME - III
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2021

SCHEDULE - 4 - FIXED ASSETS

(Amount in Rupees)

S.No	DESCRIPTIONS	GROSS BLOCK				DEPRECIATION				NET BLOCK	
		Opg Balance 01.04.2020	Additions	Deductions	Cl Balance 31.03.2021	Dep Opening Balance	Depreciation for the year	Deduction / Adjustments	Total Depreciation	31.03.2021	31.03.2020
1	Land	0	0	0	0	0	0	0	0	0	0
2	Site Development	0	0	0	0	0	0	0	0	0	0
3	Buildings	0	0	0	0	0	0	0	0	0	0
4	Roads & Bridges	0	0	0	0	0	0	0	0	0	0
5	Tubewells & Water Supply	0	0	0	0	0	0	0	0	0	0
6	Sewarage & Drainage	0	0	0	0	0	0	0	0	0	0
7	Electrical Installation and Equipment	0	0	0	0	0	0	0	0	0	0
8	Plant & Machinery	19659459	0	19659459	0	0	0	0	0	0	19659459
9	Scientific & Laboratory Equipment	0	0	0	0	0	0	0	0	0	0
10	Office Equipment	0	0	0	0	0	0	0	0	0	0
11	Audit Visual Equipment	0	0	0	0	0	0	0	0	0	0
12	Computers & Peripherals	0	0	0	0	0	0	0	0	0	0
13	Furniture, Fixtures & Fittings	0	0	0	0	0	0	0	0	0	0
14	Vehicles	0	0	0	0	0	0	0	0	0	0
15	Lib Books & Scientific Journals	0	0	0	0	0	0	0	0	0	0
16	Small Value of assets	0	0	0	0	0	0	0	0	0	0
	Tota (A)	**19659459**	**0**	**19659459**	**0**	**0**	**0**	**0**	**0**	**0**	**19659459**
17	Capital Work in progress (B)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0	0

S.No	Intangible Assets	Opg Balance 01.04.2020	Additions	Deductions	Cl Balance 31.03.2021	Dep Opening Balance	Amortization Adjustments	Deductions / Adjustments	Total Amortiziation / Adjustments	31.03.2021	31.03.2020
18	Computer Software	0	0	0	0	0	0	0	0	0	0
19	E-Journals	0	0	0	0	0	0	0	0	0	0
20	Patents	0	0	0	0	0	0	0	0	0	0
	Total (C)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Grand Total(A+B+C)	**19659459**	**0**	**19659459**	**0**	**0**	**0**	**0**	**0**	**0**	**19659459**
	PREVIOUS YEAR	**0**	**19659459**	**0**	**19659459**	**0**	**0**	**0**	**0**	**19659459**	**0**

NATIONAL INSTITUTEOF TECHNOLOGY, WARANGAL
TECHNICAL EDUCTION QUALITY IMPROVEMENT PROGRAMME - III
INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2021

INCOME	SCHEDULE	Current Year	Previous Year
Academic Receipts	9	0	0
Garnts / Subsidies	10	10460119	26693230
Income from Investments	11	0	0
Interest Earned	12	0	0
Other Income	13	255025	1467342
Prior Period Income	14	0	0
TOTAL (A)		**10715144**	**28160572**
EXPENDITURE			
Staff Payments & Benefits (Establishment Expenses)	15	673857	619862
Academic Expenses	16	0	0
Administrative and General Exp	17	9787294	26080655
Transportation expenses	18	0	0
Reparis & Maintenance	19	0	0
Finance Cost	20	0	0
Depreciation	4	0	0
Other Expenses	21	0	0
Prior Period Expenses	22	0	0
TOTAL (B)		**10461151**	**26700517**
Balance being excess of Income over Expenditure (A-B)		253993	1460056
Transfer to / from Designated Fund		0	0
Building Fund		0	0
Others if Any		0	0
Balance being surplus (Deficit) carried to General Fund		**253993**	**1460056**
Notes on Accounts	22		

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL
TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME - III
SCHEDULES FORMING PART OF INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR 2020 - 21

SCHEDULE 10 - GRANTS / SUBSIDIES (IRREVOCABLE GRANTS RECEIVED)

	PLAN			TOTAL PLAN	NON PLAN /	CURRENT	PREVIOUS
	GOVT OF	UGC					
	INDIA	PLAN	SPC SCHEME		UGC	YEAR TOTAL	YEAR
Balance B/f	0	0	0	0	0	0	0
Add: Receipts during the year	0	0	0	0	10460119	10460119	26693230
Total	0	0	0	0	10460119	10460119	26693230
Less: Refunded to UGC	0	0	0	0	0	0	0
Balance	0	0	0	0	10460119	10460119	26693230
Less: Utilized for Capital Expenditure (A)	0	0	0	0	0	0	
Balance	0	0	0	0	10460119	10460119	26693230
Less: Utilized for Revenue Expenditure (B)	0	0	0	0	10460119	10460119	26693230
TOTAL	0	0	0	0	0	0	0

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME - III

SCHEDULES FORMING PART OF INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR 2020 - 21

SCHEDULE 13- OTHER INCOME

A.Income from Land & Building	**CURRENT YEAR**	**PREVIOUS YEAR**
1. Hostel Room Rent	0	0
2. License fee	0	0
3. Hire Charges of Auditorium/Play ground/Convention Centre,etc.	0	0
4. Electricity Charges recovered	0	0
5. Water Charges recovered	0	0
Total (A)	**0**	**0**
B. Sale of Institute's Publications	**0**	0
C. Income from from holding events		
1.Gross Receipts from annual function/sports caenival	0	0
Less : Direct Expenditure incurred on the annual function/sports carnival	0	0
2. Gross Receipts from fetes	0	0
Less : Direct Expenditure incurred on the fetes	0	0
3. Gross Receipts for educational tours	0	0
Less : Direct Expenditure incurred on the tours	0	0
4. Others (to be specified and separately disclosed)	0	0
TOTAL(C)	**0**	**0**
D. Others		
1. Income from Consultancy	0	0
2. RTI Fees	0	0
3. Income from Royalty	0	0
4. Sale of application form (recruitment)	0	0
5. Misc. receipts (Sale of tender form, waste paper, etc.)		
--- Sale of Tender Schedules	0	0
--- Registration Fee	255025	1467342
6. Profit on Sale/ Disposal of Assets:		
a) Owned Assets	0	0
b) Assets acquired out of grants, or received free of cost	0	0
7. Grants / Donations from Institutions, Welfare Bodies and International Organizations	0	0
8. Others (Specify)	0	0
TOTAL(D)	**255025**	**1467342**
GRAND TOTAL (A+B+C+D)	**255025**	**1467342**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME - III

SCHEDULES FORMING PART OF INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR 2020 - 21

SCHEDULE 15- STAFF PAYMENTS & BENEFITS	CURRENT YEAR			PREVIOUS YEAR		
	PLAN	NON PLAN	TOTAL	PLAN	NON PLAN	TOTAL
a) Salaries and Wages	0	673857	673857	0	619862	619862
b) Allowances and Bonus - Bonus for Non Teaching Staff	0	0	0	0	0	0
c) Contribution to Provident Fund	0	0	0	0	0	0
d) Contribution to Other Fund (Specify)	0	0	0	0	0	0
e) Staff Welfare Expenses	0	0	0	0	0	0
f) Retirement and Terminal Benefits	0	0	0	0	0	0
g) LTC facility	0	0	0	0	0	0
h) Medical facility	0	0	0	0	0	0
i) Children Education Allowance	0	0	0	0	0	0
j) Honorarium	0	0	0	0	0	0
k) Others (Specify)	0	0	0	0	0	0
--- Amenities to Staff & Students	0	0	0	0	0	0
--- Daily wage / consolidated / Outsourcing charges	0	0	0	0	0	0
TOTAL	**0**	**673857**	**673857**	**0**	**619862**	**619862**

SCHEDULE 17- ADMINISTRATIVE AND GENERAL EXPENSES	CURRENT YEAR			PREVIOUS YEAR		
	PLAN	NON PLAN	TOTAL	PLAN	NON PLAN	TOTAL
A. Infrastructure						
a) Electricity and Power	0	0	0	0	0	0
b) Water charges	0	0	0	0	0	0
c) Insurance	0	0	0	0	0	0
d) Rent, Rates and Taxes (including property tax)	0	0	0	0	0	0
B. Communication						
e) Postage and telegram	0	0	0	0	0	0
f) Telephone, Fax and Internet Charges	0	0	0	0	0	0
C. Others						
g) Printing and Stationary (Consumption)	0	0	0	0	0	0
h) Travelling and Conveyance Expenses	0	0	0	0	275580	275580
i) Hospitality	0	0	0	0	0	0
j) Auditor's Remuneration	0	0	0	0	0	0
k) Professional Charges	0	0	0	0	0	0
Balance C/d	**0**	**0**	**0**	**0**	**275580**	**275580**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME - III

SCHEDULES FORMING PART OF INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR 2020 - 21

Balance B/d	0	0	0	0	275580	275580
l) Advertisement and Publicity	0	0	0	0	0	0
m) Magazines and Journals	0	0	0	0	0	0
n) Others (Specify)						
--- Graduates Employability	0	0	0	0	1912080	1912080
--- Improve Students Learning	0	370775	370775	0	2381546	2381546
--- Mentoring / Twinning Systems	0	18916	18916	0	367897	367897
--- Research & Development	0	206245	206245	0	848979	848979
--- Industry Institute Interaction	0	36000	36000	0	10870	10870
--- Faculty & Staff Development	0	649515	649515	0	6582550	6582550
--- Research Assistantships	0	0	0	0	12600000	12600000
--- Reforms & Governance	0	0	0	0	338500	338500
--- Management Capacity Development	0	0	0	0	291781	291781
--- Office Expenses	0	414683	414683	0	168605	168605
--- O & M Equipment	0	0	0	0	265015	265015
--- Consumables	0	0	0	0	29965	29965
--- Bank Charges	0	1032	1032	0	7287	7287
--- Procurement of Goods	0	8090128	8090128	0	0	0
TOTAL	**0**	**9787294**	**9787294**	**0**	**26080655**	**26080655**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL
TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME - III
RECEIPTS AND PAYMENTS FOR THE YEAR ENDED 31-03-2021

(Amount in Rupees)

RECEIPTS	Current Year	Previous Year	PAYMENTS	Current Year	Previous Year
I. Opening Balances:			**I. Expenses**		
a) Cash in hand			a) Establishment Expenses	673857	619862
b) Bank Balances			b) Academic Expenses	0	
--- SBI NITW Current A/c	2833436	3873380	c) Administrative Expenses	9787294	25805075
			d) Transportation Expenses	0	275580
II. Grants Received			e) Repairs & Maintenance	0	0
a) GOI - MHRD Capital Grant	0	19659459	f) Prior Period Expenses	0	0
b) GOI - MHRD Towards Advances	30000	2380000			
			II. Payments made against Earmarked / Endowment Funds		
b) GOI - MHRD Revenue Grant	10460119	26693230			
III. Academic Receipts	0	0	--- Earmarked Fund	0	0
			--- Endowment Fund	0	0
IV. Receipts against Earmarked / Endowment Fund	0	0	**III. Payments against Sponsored Projects / Schemes**	0	0
V. Receipts against Sponsored Projects / Schemes	0	0	**IV. Payments against Sponsored Felllowships / Scholarships**	0	0
VI. Receipts against Sponsored Fellowships and Scholarships	0	0	**V. Investments and Deposits made**		
			a) Out of Earmarked / Endowments funds	0	0
VII. Income on Investments from			b) Out of Own funds	0	0
--- Earmarked / Endowment Funds	0	0			
--- Other Investments	0	0	**VI. Term Deposits with Scheduled Banks**	0	0
			VII. Expenditure on Fixed Assets and Capital Works - in - Progress		
VIII. Interest received on					
--- Bank Deposits	0	0	a) Fixed Assets	0	19659459
--- Loand and Advances	0	0	b) Capital Work - in - Progress	0	0
--- Savings Bank Account	0	0			
			VIII. Other Payments including statutory payments		
IX. Investment encashed	0	0			
X. Term Deposits with Scheduled Banks encashed	0	0	**IX. Refunds and Grants**	0	0
XI. Other Income (including PPI)			**X. Deposits and Advances**	0	0
--- Income from L & B	0	0	--- EMD	0	0
--- Other Income			--- Advances Accounts	30000	2380000
-- Sale of Tender Schedule	0	0	--- NPIU - Adjustment of Advance	30000	3695000
-- Training / Regn Fee Coll	255025	1467342	**XI. Other Payments**		
			--- Professional Tax	4200	3300
			--- NIT Warangal	0	2500000
XII. Deposits & Advances			**XII. Closing Balances**		
--- EMD	0	0	a) Cash in hand		
--- Advances Accounts	30000	3695000	b) Bank Balances		
--- NIT Warangal	0	0	--- SBI NITW Current A/c	3087429	2833436
XIII. Miscelleneous Receipts including Statutory Receipts	0	0			
XIV. Any Other Receipts	4200	3300			
	13612780	**57771711**		**13612780**	**57771711**

NATIONAL INSTITUTEOF TECHNOLOGY, WARANGAL
TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME - II
BALANCE SHEET AS AT 31-03-2021

(Amount in Rupees)

SOURCES OF FUNDS	SCHEDULE	Current Year	Previous Year
Corpus / Capital Fund	1	89022789	89022789
Designated / Earmarked / Endowment Funds	2	0	0
Current Liabilities & Provisions	3	0	0
TOTAL	-	**89022789**	**89022789**
APPLICATION OF FUNDS			
Fixed Assets	4		
-- Tangible Assets		89004289	89004289
-- Intangible Assets		0	0
-- Capital Work in progress		0	0
Investments	5		
-- Long Term		0	0
-- Short Term		0	0
Investments - Others	6	0	0
Current Assets	7	18500	18500
Loans, Advanes & Deposits	8	0	0
TOTAL		**89022789**	**89022789**
Significant Accounting Policies	23		
Contingent Liabilities and Notes to Accounts	24		

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL
TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME - II
SCHEDULES FORMING PART OFBALANCE SHEET AS AT 31-03-2021

SCHEDULE 1- CORPUS FUND / CAPITAL FUND	CURRENT YEAR	PREVIOUS YEAR
Balance as at the beginning of the year	89022789	119480261
Add: Contributions towards Corpus / Capital Fund	0	0
Add: Grants from UGC, GOI and State Government to the extent utilized for capital expenditure	0	0
Add: Assets purchased out of Earmarked Funds	0	0
Add: Assets purchased out of Sponsored Projects where ownership vests in the institution	0	0
Add: Assets Donated / Gifts Received	0	0
Add: Other Addition	0	0
Add: Excess of Income over expenditure transferred from Income & Expenditure Account	0	0
	89022789	119480261
Ded: Deficit of Incover over Expenditure transerred from Income & Expenditure Account	0	0
Ded: Grants refunded to NPIU / NIT	0	30457472
Balance at the year end	**89022789**	**89022789**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL
TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME - II
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2021

SCHEDULE - 4 - FIXED ASSETS (Amount in Rupees)

S.No	DESCRIPTIONS	GROSS BLOCK				DEPRECIATION				NET BLOCK	
		Opg Balance 01.04.2020	Additions	Deductions	Cl Balance 31.03.2021	Dep Opening Balance	Depreciation for the year	Deduction / Adjustments	Total Depreciation	31.03.2021	31.03.2020
1	Land	0	0	0	0	0	0	0	0	0	0
2	Site Development	0	0	0	0	0	0	0	0	0	0
3	Buildings	0	0	0	0	0	0	0	0	0	0
4	Roads & Bridges	0	0	0	0	0	0	0	0	0	0
5	Tubewells & Water Supply	0	0	0	0	0	0	0	0	0	0
6	Sewarage & Drainage	0	0	0	0	0	0	0	0	0	0
7	Electrical Installation and Equipment	0	0	0	0	0	0	0	0	0	0
8	Plant & Machinery	76241114	0	0	76241114	0	0	0	0	76241114	76241114
9	Scientific & Laboratory Equipment	5983344	0	0	5983344	0	0	0	0	5983344	5983344
10	Office Equipment	0	0	0	0	0	0	0	0	0	0
11	Audit Visual Equipment	0	0	0	0	0	0	0	0	0	0
12	Computers & Peripherals	0	0	0	0	0	0	0	0	0	0
13	Furniture, Fixtures & Fittings	1200821	0	0	1200821	0	0	0	0	1200821	1200821
14	Vehicles	0	0	0	0	0	0	0	0	0	0
15	Lib Books & Scientific Journals	5579010	0	0	5579010	0	0	0	0	5579010	5579010
16	Small Value of assets	0	0	0	0	0	0	0	0	0	0
	Tota (A)	**89004289**	**0**	**0**	**89004289**	**0**	**0**	**0**	**0**	**89004289**	**89004289**
17	Capital Work in progress (B)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0	0

S.No	Intangible Assets	Op Balance 01.04.2020	Additions	Deductions	Cl Balance 31.03.2021	Dep Opening Balance	Amortization Adjustments	Deductions / Adjustments	Total Amortiziation / Adjustments	31.03.2021	31.03.2020
18	Computer Software	0	0	0	0	0	0	0	0	0	0
19	E-Journals	0	0	0	0	0	0	0	0	0	0
20	Patents	0	0	0	0	0	0	0	0	0	0
	Total (C)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Grand Total(A+B+C)	**89004289**	**0**	**0**	**89004289**	**0**	**0**	**0**	**0**	**89004289**	**89004289**
	PREVIOUS YEAR	**89004289**	**0**	**0**	**89004289**	**0**	**0**	**0**	**0**	**89004289**	**89004289**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL
TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME - II
SCHEDULES FORMING PART OFBALANCE SHEET AS AT 31-03-2021

SCHEDULE 7 - CURRENT ASSETS	CURRENT YEAR	PREVIOUS YEAR
1. Stock:		
a) Stores and Spares		
--- Stores and Spares	0	0
--- Loose Tools	0	0
--- Publications	0	0
--- Laboratory chemicals, consumables and glassware	0	0
--- Building Material	0	0
--- Electrical Material	0	0
--- Stationery	0	0
--- Water supply material	0	0
2. Sundry Debtors:		
a) Debts outstanding for a period exceeding six months	0	0
b) Others		
3. Cash and Bank Balances		
a) Cash Balance in hand(incl cheques / drafts and imprest)		
- Main Cash Balance	0	0
- Petty Cash Balance	0	0
- Imprest with department	0	0
b) With Scheduled Banks:		
- In Current Accounts	18500	18500
- In Term Deposit Accounts - **STDR**	0	0
- In Savings Accounts	0	0
c) With Non-Scheduled banks:		
- In Current Accounts	0	0
- In Term Deposit Accounts	0	0
- In Savings Accounts	0	0
4. Post Office- Savings Accounts	0	0
TOTAL	18500	18500

NATIONAL INSTITUTEOF TECHNOLOGY, WARANGAL
TEQIP - II CoE - SUSTAINABLE ENERGY STUDIES
BALANCE SHEET AS AT 31-03-2021

(Amount in Rupees)

SOURCES OF FUNDS	SCHEDULE	Current Year	Previous Year
Corpus / Capital Fund	1	18904353	18904353
Designated / Earmarked / Endowment Funds	2	0	0
Current Liabilities & Provisions	3	0	0
TOTAL	-	**18904353**	**18904353**
APPLICATION OF FUNDS			
Fixed Assets	4		
-- Tangible Assets		18904353	18904353
-- Intangible Assets		0	0
-- Capital Work in progress		0	0
Investments	5		
-- Long Term		0	0
-- Short Term		0	0
Investments - Others	6	0	0
Current Assets	7	0	0
Loans, Advanes & Deposits	8	0	0
TOTAL		**18904353**	**18904353**
Significant Accounting Policies	23		
Contingent Liabilities and Notes to Accounts	24		

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

TEQIP - II CoE - SUSTAINABLE ENERGY STUDIES

SCHEDULES FORMING PART OFBALANCE SHEET AS AT 31-03-2021

SCHEDULE 1- CORPUS FUND / CAPITAL FUND	CURRENT YEAR	PREVIOUS YEAR
Balance as at the beginning of the year	18904353	18904353
Add: Contributions towards Corpus / Capital Fund	0	0
Add: Grants from UGC, GOI and State Government to the extent utilized for capital expenditure	0	0
Add: Assets purchased out of Earmarked Funds	0	0
rship vests in the institution	0	0
Add: Assets Donated / Gifts Received	0	0
Add: Other Addition	0	0
Add: Excess of Income over expenditure transferred from Income & Expenditure Account	0	0
	18904353	18904353
Ded: Deficit of Incover over Expenditure transerred from Income & Expenditure Account	0	0
Ded: Grants Refunded to NPIU / NITW	0	0
Balance at the year end	**18904353**	**18904353**

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL

TEQIP - II CoE - SUSTAINABLE ENERGY STUDIES

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2021

SCHEDULE - 4 - FIXED ASSETS (Amount in Rupees)

S.No	DESCRIPTIONS	GROSS BLOCK				DEPRECIATION				NET BLOCK	
		Opg Balance 01.04.2020	Additions	Deductions	Cl Balance 31.03.2021	Dep Opening Balance	Depreciation for the year	Deduction / Adjustments	Total Depreciation	31.03.2021	31.03.2020
1	Land	0	0	0	0	0	0	0	0	0	0
2	Site Development	0	0	0	0	0	0	0	0	0	0
3	Buildings	0	0	0	0	0	0	0	0	0	0
4	Roads & Bridges	0	0	0	0	0	0	0	0	0	0
5	Tubewells & Water Supply	0	0	0	0	0	0	0	0	0	0
6	Sewarage & Drainage	0	0	0	0	0	0	0	0	0	0
7	Electrical Installation and Equipment	0	0	0	0	0	0	0	0	0	0
8	Plant & Machinery	18904353	0	0	18904353	0	0	0	0	18904353	18904353
9	Scientific & Laboratory Equipment	0	0	0	0	0	0	0	0	0	0
10	Office Equipment	0	0	0	0	0	0	0	0	0	0
11	Audit Visual Equipment	0	0	0	0	0	0	0	0	0	0
12	Computers & Peripherals	0	0	0	0	0	0	0	0	0	0
13	Furniture, Fixtures & Fittings	0	0	0	0	0	0	0	0	0	0
14	Vehicles	0	0	0	0	0	0	0	0	0	0
15	Lib Books & Scientific Journals	0	0	0	0	0	0	0	0	0	0
16	Small Value of assets	0	0	0	0	0	0	0	0	0	0
	Tota (A)	**18904353**	**0**	**0**	**18904353**	**0**	**0**	**0**	**0**	**18904353**	**18904353**
17	Capital Work in progress (B)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0	0

S.No	Intangible Assets	Opg Balance 01.04.2020	Additions	Deductions	Cl Balance 31.03.2021	Dep Opening Balance	Amortization Adjustments	Deductions / Adjustments	Total Amortiziation / Adiustments	31.03.2021	31.03.2020
18	Computer Software	0	0	0	0	0	0	0	0	0	0
19	E-Journals	0	0	0	0	0	0	0	0	0	0
20	Patents	0	0	0	0	0	0	0	0	0	0
	Total (C)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Grand Total(A+B+C)	**18904353**	**0**	**0**	**18904353**	**0**	**0**	**0**	**0**	**18904353**	**18904353**
	PREVIOUS YEAR	**18904353**	**0**	**0**	**18904353**	**0**	**0**	**0**	**0**	**18904353**	**18904353**

NATIONAL INSTITUTEOF TECHNOLOGY, WARANGAL
TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME - I
BALANCE SHEET AS AT 31-03-2021

(Amount in Rupees)

SOURCES OF FUNDS	SCHEDULE	Current Year	Previous Year
Corpus / Capital Fund	**1**	172452051	172452051
Designated / Earmarked / Endowment Funds	**2**	0	0
Current Liabilities & Provisions	**3**	770	770
TOTAL	**0**	**172452821**	**172452821**
APPLICATION OF FUNDS			
Fixed Assets	**4**		
-- Tangible Assets		172452821	172452821
-- Intangible Assets		0	0
-- Capital Work in progress		0	0
Investments	**5**		
-- Long Term		0	0
-- Short Term		0	0
Investments - Others	**6**	0	0
Current Assets	**7**	**0**	0
Loans, Advanes & Deposits	**8**	0	0
TOTAL		**172452821**	**172452821**
Significant Accounting Policies	**23**		
Contingent Liabilities and Notes to Accounts	**24**		

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL
TECHNICAL EDUCATIONAL QUALITY IMPROVEMENT PROGRAMME - I
SCHEDULES FORMING PART OFBALANCE SHEET AS AT 31-03-2021

SCHEDULE 1- CORPUS FUND / CAPITAL FUND	CURRENT YEAR	PREVIOUS YEAR
Balance as at the beginning of the year	172452051	172452051
Add: Contributions towards Corpus / Capital Fund	0	**0**
Add: Grants from UGC, GOI and State Government to the extent utilized for capital expenditure	0	0
Add: Assets purchased out of Earmarked Funds	0	0
Add: Assets purchased out of Sponsored Projects where ownership vests in the institution	0	0
Add: Assets Donated / Gifts Received	0	0
Add: Other Addition	0	0
Add: Excess of Income over expenditure transferred from Income & Expenditure Account	0	0
	172452051	172452051
Ded: Deficit of Incover over Expenditure transerred from Income & Expenditure Account	0	0
Balance at the year end	**172452051**	**172452051**

SCHEDULE 3 - CURRENT LIABILITIES & PROVISIONS	CURRENT YEAR	PREVIOUS YEAR
A. CURRENT LIABILITIES		
1. Deposits from staff		
2. Deposits from students		
3. Sundry Creditors		
a) For Goods & Services	0	**0**
b) Others	0	0
4. Deposits - others (including EMD, Security deposit)	770	770
5. Statutory Liabilities(GPF, TDS, WC TAX, CPF, GIS, NPS):		
a) Overdue	0	0
b) Others		
7. Other Current Liabilities:		
a) Salaries	0	0
b) Receipts against sponsored projects	0	0
c) Receipts against sponsored fellowships & scholarships	0	0
d) Unutilised Grants	0	0
e) Grants in advance	0	0
f) Other funds	0	0
g) Other liabilities	0	0
TOTAL (A)	770	770

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL
TECHNICAL EDUCATIONAL QUALITY IMPROVEMENT PROGRAMME - I
SCHEDULES FORMING PART OFBALANCE SHEET AS AT 31-03-2021

B. PROVISIONS		
1. For Taxation	0	0
2. Gratuity	0	0
3. Superannuation/ Pension	0	0
4. Accumulated Leave Encashment	0	0
5. Trade Warranties/ Claims	0	0
6. Others (Specify)	0	0
TOTAL (B)	0	0
TOTAL (A+B)	770	770

NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL
TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME - I
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2021

SCHEDULE - 4 - FIXED ASSETS

(Amount in Rupees)

S.No	DESCRIPTIONS	GROSS BLOCK				DEPRECIATION				NET BLOCK	
		Opg Balance 01.04.2020	Additions	Deductions	Cl Balance 31.03.2021	Dep Opening Balance	Depreciation for the year	Deduction / Adjustments	Total Depreciation	31.03.2021	31.03.2020
1	Land	0	0	0	0	0	0	0	0	0	0
2	Site Development	0	0	0	0	0	0	0	0	0	0
3	Buildings	14702290	0	0	14702290	0	0	0	0	14702290	14702290
4	Roads & Bridges	0	0	0	0	0	0	0	0	0	0
5	Tubewells & Water Supply	0	0	0	0	0	0	0	0	0	0
6	Sewarage & Drainage	0	0	0	0	0	0	0	0	0	0
7	Electrical Installation and Equipment	0	0	0	0	0	0	0	0	0	0
8	Plant & Machinery	104287799	0	0	104287799	0	0	0	0	104287799	104287799
9	Scientific & Laboratory Equipment	0	0	0	0	0	0	0	0	0	0
10	Office Equipment	8424982	0	0	8424982	0	0	0	0	8424982	8424982
11	Audit Visual Equipment	0	0	0	0	0	0	0	0	0	0
12	Computers & Peripherals	11740161	0	0	11740161	0	0	0	0	11740161	11740161
13	Furniture, Fixtures & Fittings	5305346	0	0	5305346	0	0	0	0	5305346	5305346
14	Vehicles	0	0	0	0	0	0	0	0	0	0
15	Lib Books & Scientific Journals	27992243	0	0	27992243	0	0	0	0	27992243	27992243
16	Small Value of assets	0	0	0	0	0	0	0	0	0	0
	Tota (A)	**172452821**	**0**	**0**	**172452821**	**0**	**0**	**0**	**0**	**172452821**	**172452821**
17	Capital Work in progress (B)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0	0

S.No	Intangible Assets	Op Balance 01.04.2020	Additions	Deductions	Cl Balance 31.03.2021	Dep Opening Balance	Amortization Adjustments	Deductions / Adjustments	Total Amortiziation /	31.03.2021	31.03.2020
18	Computer Software	0	0	0	0	0	0	0	0	0	0
19	E-Journals	0	0	0	0	0	0	0	0	0	0
20	Patents	0	0	0	0	0	0	0	0	0	0
	Total (C)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Grand Total(A+B+C)	**172452821**	**0**	**0**	**172452821**	**0**	**0**	**0**	**0**	**172452821**	**172452821**
	PREVIOUS YEAR	**172452821**	**0**	**0**	**172452821**	**0**	**0**	**0**	**0**	**172452821**	**172452821**

National Institute of Technology, Warangal

Statement showing interest receivable on STDR's as at 31.03.2021

Sl No	FDR No	Head of Account	sss	Principle Amout	Matured Value	Interest to be accounted	Principle Amount	Date of Deposit	Date of Maturity	Period of Deposit	Out standing interest	No of Days
1	62080003346	Maintenance	5.1	6,504,075	7,435,773	931,698	7,435,773	24/10/2020	24/10/2022	2 Years	165196	159
2	62179741057	Maintenance	5	455,509	483,937	28,428	483,937	04/02/2021	04/02/2022	1 Year	3712	56
3	62495406459	Maintenance	4.25	15,000,000	-	-	15,000,000	30/12/2016	30/12/2026	10 Years	2712432	1553
			Total	21,959,584	7,919,710	960,126	22,919,710				**2,881,340**	
1	62080003482	Depreciation	5.1	9,127,976	10,435,543	1,307,567	10,435,543	24/10/2020	24/10/2022	2 Years	231841	159
2	62179739376	Depreciation	5	459,682	488,371	28,689	488,371	04/02/2021	04/02/2022	1 Year	3746	56
3	62495405570	Depreciation	4.25	15,000,000	-	-	15,000,000	30/12/2016	30/12/2026	10 Years	2712432	1553
			Total	24,587,658	10,923,914	1,336,256	25,923,914				**2948019**	
1	62179740122	Staff Developm	5	126,680	134,586	7,906	134,586	04/02/2021	04/02/2022	1 Year	1032	56
2	62080032979	Staff Developm	5.1	518,584	592,870	74,286	592,870	24/10/2020	24/10/2022	2 Years	13171	159
3	62179741524	Staff Developm	5	6,684,798	7,649,903	965,105	7,649,903	05/02/2021	05/02/2023	2 Years	57636	55
4	62495406776	Staff Developm	4.25	10,000,000	-	-	10,000,000	30/12/2016	30/12/2026	10 Years	1808288	1553
			Total	17,330,062	8,377,359	1,047,297	18,377,359				**1880127**	
1	62182098187	Corpus Fund	6.75	4,808,225	-	-	4,808,225	22/05/2019	15/02/2022	1000D	604651	680
2	62277978404	Corpus Fund	3	71,559,841	76,476,163	4,916,322	76,476,163	03/04/2020	04/04/2021	366 D	2281713	363
3	62407680460	Corpus Fund	3	91,930,746	96,375,856	4,445,110	96,375,856	28/02/2021	28/02/2022	1 Year	253482	32
4	62503666081	Corpus Fund	2.9	76,628,147	87,025,120	10,396,973	87,025,120	29/12/2020	28/11/2022	699 D	643032	93
5	62304229832	Corpus Fund	4.9	8,852,147	9,441,714	589,567	9,441,714	20/09/2020	20/09/2021	1 year	244631	193
6	62304230020	Corpus Fund	4.9	8,852,147	9,441,714	589,567	9,441,714	20/09/2020	20/09/2021	1 year	244631	193
7	62403978991	Corpus Fund	2.9	68,638,500	72,313,588	3,675,088	72,313,588	03/01/2021	03/01/2022	1 Year	505601	88
8	62459635868	Corpus Fund	4.6	66,588,781	-	-	66,588,781	14/03/2020	13/03/2022	729D	3214140	383
9	62495407634	Corpus Fund	4.25	30,000,000	-	-	30,000,000	30/12/2016	30/12/2026	10 Years	5424863	1553
10	37672435897	Corpus Fund	3.5	40,000,000	45,729,932	5,729,932	45,729,932	27/04/2020	27/04/2022	2 Yrs	1486536	339
11	38422303936	Corpus Fund	4.4	5,916,000	6,438,456	522,456	6,438,456	26/10/2020	26/04/2021	182 D	121854	157
12	62462063951	Corpus Fund	3.7	71,777,105	76,708,354	4,931,249	76,708,354	03/04/2020	03/04/2021	1 Yr	2822657	363
13	39158027479	Corpus Fund	6	1,460,420	-	-	1,460,420	20/02/2020	20/02/2023	3 Yrs	97468	406
14	38422296951	Corpus Fund	4.4	5,000,000	5,441,562	441,562	5,441,562	26/10/2020	26/04/2021	182 D	102987	157
15	38766156886	Director - Wgl	3	20,566,934	21,336,487	769,553	21,336,487	06/03/2021	02/09/2021	180 days	45224	26
			Total	572,578,993	506,728,946	37,007,379	609,586,372				18,093,470	
1	37369157915	Director - Wgl	2.9	91,324,174	94,377,575	3,053,401	94,377,575	16/03/2021	15/06/2021	91 days	119976	16
2	37371662550	Director - Wgl	2.9	91,324,177	94,377,578	3,053,401	94,377,578	17/03/2021	16/06/2021	91 days	112477	15
3	37618516001	Director - Wgl	2.9	90,218,147	93,234,569	3,016,422	93,234,569	24/03/2021	23/06/2021	91 days	59261	8
4	37618533887	Director - Wgl	2.9	90,218,147	93,234,569	3,016,422	93,234,569	24/03/2021	23/06/2021	91 days	59261	8
5	37618535057	Director - Wgl	2.9	90,218,147	93,234,569	3,016,422	93,234,569	24/03/2021	23/06/2021	91 days	59261	8
6	37866333907	Director - Wgl	2.9	103,140,719	113,132,413	9,991,694	113,132,413	03/02/2021	05/05/2021	91 days	525303	57
7	38213358805	Director - Wgl	2.9	80,000,000	87,902,204	7,902,204	87,902,204	22/01/2021	23/04/2021	91 days	488590	69
8	38213366699	Director - Wgl	2.9	80,000,000	87,902,204	7,902,204	87,902,204	22/01/2021	23/04/2021	91 days	488590	69
9	38213372965	Director - Wgl	2.9	80,000,000	87,902,204	7,902,204	87,902,204	22/01/2021	23/04/2021	91 days	488590	69
10	38213373673	Director - Wgl	2.9	80,000,000	87,902,204	7,902,204	87,902,204	22/01/2021	23/04/2021	91 days	488590	69
11	38213374554	Director - Wgl	2.9	80,000,000	87,902,204	7,902,204	87,902,204	22/01/2021	23/04/2021	91 days	488590	69

National Institute of Technology, Warangal												
Statement showing interest receivable on STDR's as at 31.03.2021												
Sl No	FDR No	Head of Account	sss	Principle Amout	Matured Value	Interest to be accounted	Principle Amount	Date of Deposit	Date of Maturity	Period of Deposit	Out standing interest	No of Days
12	38743055997	Director - Wgl	2.9	20,503,667	21,179,087	675,420	21,179,087	26/02/2021	27/05/2021	90 days	57213	34
13	38743067775	Director - Wgl	2.9	20,503,667	21,179,087	675,420	21,179,087	26/02/2021	27/05/2021	90 days	57213	34
14	38743084677	Director - Wgl	2.9	20,503,667	21,179,087	675,420	21,179,087	26/02/2021	27/05/2021	90 days	57213	34
15	38743115438	Director - Wgl	2.9	20,503,667	21,179,087	675,420	21,179,087	26/02/2021	27/05/2021	90 days	57213	34
16	38743116146	Director - Wgl	2.9	20,503,667	21,179,087	675,420	21,179,087	26/02/2021	27/05/2021	90 days	57213	34
17	38748530606	Director - Wgl	3.9	5,136,536	5,351,323	214,787	5,351,323	27/02/2021	28/05/2021	90 days	18869	33
18	38748531452	Director - Wgl	3.9	5,136,536	5,351,323	214,787	5,351,323	27/02/2021	28/05/2021	90 days	18869	33
19	38823876775	Director - Wgl	3.9	15,203,425	16,034,417	830,992	16,034,417	28/03/2021	26/06/2021	90 days	6853	4
20	38823953627	Director - Wgl	3.9	15,203,425	16,034,417	830,992	16,034,417	28/03/2021	26/06/2021	90 days	6853	4
21	38823954654	Director - Wgl	3.9	15,203,425	16,034,417	830,992	16,034,417	28/03/2021	26/06/2021	90 days	6853	4
22	38823955841	Director - Wgl	3.9	15,203,425	16,034,417	830,992	16,034,417	28/03/2021	26/06/2021	90 days	6853	4
23	38823956753	Director - Wgl	3.9	15,203,425	16,034,417	830,992	16,034,417	28/03/2021	26/06/2021	90 days	6853	4
24	38823957871	Director - Wgl	3.9	15,203,425	16,034,417	830,992	16,034,417	28/03/2021	26/06/2021	90 days	6853	4
25	38823959006	Director - Wgl	3.9	15,203,425	16,034,417	830,992	16,034,417	28/03/2021	26/06/2021	90 days	6853	4
26	38823961479	Director - Wgl	3.9	15,203,425	16,034,417	830,992	16,034,417	28/03/2021	26/06/2021	90 days	6853	4
27	38823962519	Director - Wgl	3.9	15,203,425	16,034,417	830,992	16,034,417	28/03/2021	26/06/2021	90 days	6853	4
28	38823963793	Director - Wgl	3.9	15,203,425	16,034,417	830,992	16,034,417	28/03/2021	26/06/2021	90 days	6853	4
29	38823964935	Director - Wgl	3.9	15,203,425	16,034,417	830,992	16,034,417	28/03/2021	26/06/2021	90 days	6853	4
30	38824037319	Director - Wgl	3.9	15,203,425	16,034,417	830,992	16,034,417	28/03/2021	26/06/2021	90 days	6853	4
31	38824038437	Director - Wgl	3.9	15,203,425	16,034,417	830,992	16,034,417	28/03/2021	26/06/2021	90 days	6853	4
32	38824039543	Director - Wgl	3.9	15,203,425	16,034,417	830,992	16,034,417	28/03/2021	26/06/2021	90 days	6853	4
33	38824040956	Director - Wgl	3.9	15,203,425	16,034,417	830,992	16,034,417	28/03/2021	26/06/2021	90 days	6853	4
34	38824041790	Director - Wgl	3.9	15,203,425	16,034,417	830,992	16,034,417	28/03/2021	26/06/2021	90 days	6853	4
35	38824042954	Director - Wgl	3.9	15,203,425	16,034,417	830,992	16,034,417	28/03/2021	26/06/2021	90 days	6853	4
36	38824044644	Director - Wgl	3.9	10,135,616	10,689,612	553,996	10,689,612	28/03/2021	26/06/2021	90 days	4569	4
37	38824643886	Director - Wgl	3.9	15,203,425	16,034,417	830,992	16,034,417	28/03/2021	26/06/2021	90 days	6853	4
38	38970609493	Director - Wgl	3.9	15,203,425	15,839,164	635,739	15,839,164	25/02/2021	26/05/2021	90 days	59234	35
39	38970662254	Director - Wgl	3.9	15,203,425	15,839,164	635,739	15,839,164	25/02/2021	26/05/2021	90 days	59234	35
40	38970666032	Director - Wgl	3.9	15,203,425	15,839,164	635,739	15,839,164	25/02/2021	26/05/2021	90 days	59234	35
41	38970667387	Director - Wgl	3.9	15,203,425	15,839,164	635,739	15,839,164	25/02/2021	26/05/2021	90 days	59234	35
42	38970668198	Director - Wgl	3.9	15,203,425	15,839,164	635,739	15,839,164	25/02/2021	26/05/2021	90 days	59234	35
43	38970668846	Director - Wgl	3.9	15,203,425	15,839,164	635,739	15,839,164	25/02/2021	26/05/2021	90 days	59234	35
44	38970669974	Director - Wgl	3.9	15,203,425	15,839,164	635,739	15,839,164	25/02/2021	26/05/2021	90 days	59234	35
45	38970671188	Director - Wgl	3.9	15,203,425	15,839,164	635,739	15,839,164	25/02/2021	26/05/2021	90 days	59234	35
46	38970674258	Director - Wgl	3.9	15,203,425	15,839,164	635,739	15,839,164	25/02/2021	26/05/2021	90 days	59234	35
47	38970675434	Director - Wgl	3.9	15,203,425	15,839,164	635,739	15,839,164	25/02/2021	26/05/2021	90 days	59234	35
48	38970676618	Director - Wgl	3.9	15,203,425	15,839,164	635,739	15,839,164	25/02/2021	26/05/2021	90 days	59234	35
49	38970677769	Director - Wgl	3.9	15,203,425	15,839,164	635,739	15,839,164	25/02/2021	26/05/2021	90 days	59234	35
50	38970679303	Director - Wgl	3.9	10,135,616	10,559,442	423,826	10,559,442	25/02/2021	26/05/2021	90 days	39489	35
51	38970679959	Director - Wgl	3.9	10,135,616	10,559,442	423,826	10,559,442	25/02/2021	26/05/2021	90 days	39489	35
52	38743083561	Director - Wgl	2.9	20,503,667	21,179,087	675,420	21,179,087	26/02/2021	30/05/2021	90 days	57213	34
53	40043567743	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31

National Institute of Technology, Warangal												
Statement showing interest receivable on STDR's as at 31.03.2021												
Sl No	FDR No	Head of Account	sss	Principle Amout	Matured Value	Interest to be accounted	Principle Amount	Date of Deposit	Date of Maturity	Period of Deposit	Out standing interest	No of Days
54	40043573575	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
55	40043382752	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
56	40043628992	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
57	40043627444	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
58	40043628266	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
59	40043625772	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
60	40043735426	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
61	40043624635	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
62	40043623325	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
63	40043622559	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
64	40043620131	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
65	40043619240	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
66	40043618269	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
67	40043617196	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
68	40043615870	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
69	40043614752	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
70	40043613963	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
71	40043613055	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
72	40043611445	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
73	40043610587	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
74	40043609344	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
75	40043578596	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
76	40043577864	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
77	40043577069	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
78	40043576087	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
79	40043572492	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
80	40043571216	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
81	40043570110	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
82	40043569025	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
83	40043565780	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
84	40043566524	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
85	40043564232	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
86	40043563272	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
87	40043562484	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
88	40043561582	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
89	40043560533	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
90	40043559743	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
91	40043558808	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
92	40043557871	Director - Wgl	3.9	15,000,000	-	-	15,000,000	01/03/2021	30/05/2021	90 days	49685	31
			Total	2,176,248,183	1,669,377,431	93,129,248	2,269,377,431				6,664,614	
Break up				**2,812,704,480**	**2,203,327,360**	**133,480,306**	**2,946,184,786**		**Total**		**32,467,570**	

सत्यमेव जयते

महानिदेशक लेखापरीक्षा (केंद्रीय) का कार्यालय
सैफाबाद, हैदराबाद - ५०० ००४

OFFICE OF THE
DIRECTOR GENERAL OF AUDIT (CENTRAL)
SAIFABAD, HYDERABAD - 500 004.

No.DGA(C)/CEA/Unit-1/PA/NITW/SAR. 2020-21 / 2021-22/ Date:07.02.2022

सेवा में
सचिव,
भारत सरकार, शिक्षा मंत्रालय,
उच्च शिक्षा विभाग, '
सी' विंग,शास्त्री भवन,डॉ. राजेन्द्र प्रसाद रोड
नई दिल्ली -110 001

महोदय,

विषय: राष्ट्रीय प्रौद्योगिकी संस्थान, वारंगल, के वर्ष 2020-21, लेखों पर पृथक लेखापरीक्षा प्रतिवेदन

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Separate Audit Report on the Accounts of National Institute of Technology, Warangal, for the year 2020-21, Annexure thereof and one copy of the Annual Accounts for the year 2020-21, are forwarded herewith for placing before both the Houses of Parliament.

The dates of presentation of Separate Audit Report in both the Houses of Parliament may please be intimated.

Receipt of this letter along with the enclosures may kindly be acknowledged.

भवदीय,

संल:यथोपरि

Sd/-
महा निदेशक लेखापरीक्षा (केंद्रीय)

Endt. No.DGA(C)/CEA/Unit-1/PA/NITW/SAR.2020-1 2021-22/112 Date:07.02.2022

Copy to Prof. N.V. Ramana Rao, Director, National Institute of Technology, Warangal-506 004, Telangana, along with one copy of Annual Accounts for the year 2020-21 (English version), with a request to furnish Hindi version of the approved Annual Accounts 2020-21 (2 sets), to this Office.

संल:यथोपरि

Director/CEA

Phone No.: 040-23236811 to 23236819 E-mail : pdachyderabad@cag.gov.in Fax No. : 040-23232294

Separate Audit Report of the Comptroller and Auditor General of India on the Accounts of National Institute of Technology, Warangal, for the year ended 31 March 2021

We have audited the attached Balance Sheet of National Institute of Technology, Warangal (NITW), as at 31 March 2021, the Income & Expenditure Account and Receipts & Payments Account for the year ended on that date under Section 19(2) of the Comptroller & Auditor General's (Duties, Powers & Conditions of Service) Act, 1971, read with Section 22(2) of the National Institutes of Technology Act, 2007. These financial statements are the responsibility of the Institute's Management. Our responsibility is to express an opinion on these financial statements based on our audit.

2. This Separate Audit Report contains the comments of the Comptroller & Auditor General of India (CAG) on the accounting treatment only with regard to classification, conformity with the best accounting practices, accounting standards and disclosure norms, etc. Audit observations on financial transactions with regard to compliance with the Law, Rules & Regulations (Propriety and Regularity) and efficiency-cum-performance aspects, etc., if any, are reported through Inspection Reports/CAG's Audit Reports separately.

3. We have conducted our audit in accordance with auditing standards generally accepted in India. These standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements. An audit includes examining, on a test basis, evidences supporting the amounts and disclosure in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of financial statements. We believe that our audit provides a reasonable basis for our opinion.

4. Based on our audit, we report that:

i. We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of our audit;

ii. The Balance Sheet and Income & Expenditure Account/ Receipts & Payments Account dealt with by this Report have been drawn in the Revised Format of Accounts, prescribed by Government of India, Ministry of Human Resource Development, for Central Educational Institutions.

iii. In our opinion, proper books of accounts and other relevant records have been maintained by the Institute as required, in so far as it appears from our examination of such books.

iv. We further report that:

A. Consolidated Balance Sheet

A.1. Corpus/Capital Fund - Rs.653.60 crore

A.1.1 Capital expenditure was incurred from advances made to CPWD from the years 2017-18 to 2020-21 which was not taken to Capital Fund. This resulted in understatement of the capital and overstatement of unutilised grants to the extent of Rs.33.11 crore.

A.2 Current Liabilities & Provisions – Rs.88.86 crore

A.2.1 An amount of Rs. 2.57 crore pertaining to the Institute Overhead charges and Rs.6.78 lakh pertaining to SPARC-Overhead & Contingency was shown under current liabilities instead of booking under the Head Income. This resulted in overstatement of Current Liabilities & Provisions to the extent of Rs.2.64 crore and understatement of Income of to the same extent.

A.2.2 This includes GST Provision amount of Rs.1.91 crore which was withdrawn and refunded to the concerned Project Sponsors. However, the Institute, even after refund of the same, exhibited this under Schedule-3. This resulted in overstatement of Current Liabilities & Provisions of Schedule-3 and overstatement of Current Assets.

A.2.3 This does not include an amount of Rs.63.87 lakh (i) due to depiction of Rs.35 lakh invested from the Project Fund as expenditure (mentioned at Sl.No.318 of Schedule-3(a) of Rs.35.00 lakh as expenditure), (ii) non-accounting of sanctioned amount of Rs.24.87 lakh in respect of Project (mentioned at Sl.No.320 of Schedule-3(a)) and (iii) investment amount of Rs.4.00 lakh shown as expenditure for the same Project. This resulted in understatement of Current Liabilities & Provisions at Schedule-3 to the extent of Rs.63.87 lakh and overstatement of Current Assets.

A.3 Fixed Assets – Rs.442.21crore

A.3.1 This does not include the Fixed Assets purchased through Research Project amounting to Rs.6.78 crore[1] though the Institute addressed to the Sponsors that the equipment would be retained for future academic programme. This resulted in understatement of Fixed Assets to the extent of Rs.6.78 crore and understatement of Capital Fund to the same extent. Depreciation is also understated.

A.3.2 This includes an amount of Rs.29.00 lakh pertaining to the subscription of e-Journals[2] capitalized during the year 2020-21 instead of 2021-22 and depreciation was also provided on this amount, though, subscription of these e-Journals pertains to the period from 1.04.2021 to 31.03.2022. This resulted in overstatement of Fixed Assets and Capital Fund to an extent of Rs.29.00 lakh. This also resulted in Overstatement of depreciation to the extent of Rs. 11.60 lakh under Income and Expenditure account.

A.4 Current Assets – Rs.277.41 crore

A.4.1 This does not include an amount of Rs.4.22 crore available in Current Account (Account No.38631724470) related to SERB Projects and the same was not disclosed in the Annual Accounts. This resulted in understatement of Current Assets to the extent of Rs.4.22 crore.

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[1] 100 KN Servo electric fatigue testing system-Rs.21113278, Computer &Printer – Rs.4896924, DG Set-Rs.2672056, AC System- Rs.866581, UPS- Rs.727478, Creep Testing Machines – Rs.37543905

[2] Sage e-Journals – EMS Engineering and Materials Science Collection, Sage Publications

B. Income and Expenditure Account

B.1 Expenditure- Rs. 338.28 Crore

B.1.1 Expenditure incurred towards purchase of Computers & Peripherals (Depreciation @ 20 per cent) and Computer Software (Depreciation @ 40 per cent) amounting to Rs.5.13 crore was misclassified and booked under Scientific & Laboratory equipment with a rate of depreciation of 8 per cent. This resulted in understatement of Depreciation to an extent of Rs.68.84 lakh. Thereby, the expenditure is understated, and deficit is overstated to the same extent.

B.1.2 An expenditure incurred towards purchase of Furniture (viz., Library Book racks, Wooden & Steel racks etc.) amounting to Rs.7.28 lakh was booked under E-Journals and depreciation was allowed @40 per cent instead of 7.5 per cent applicable to Furniture, Fixtures & Fittings. This resulted in overstatement of expenditure in the form of depreciation and overstatement of deficit to a tune of Rs.2.36 lakh.

C. General

1. Provision (as per Accounting Standard-15) was not made for liability towards payment of Retirement Gratuity, Leave Encashment and Superannuation Pension.

2. The discrepancy of Rs. 6.49 crore in Opening Balance of Corpus Fund (Rs. 63.74 crore) as stated at Schedule-5A and the amount invested under Term Deposits with Banks (Rs. 57.26 crore) needs reconciliation.

D. Grants-in-aid

Out of total Grants-in-aid of Rs. 205.72 crore[3] and previous year unutilized balance of Rs.191.49 crore (as per previous year SAR for the year 2019-20) totaling to Rs.397.21 crore, the Institute utilized a sum of Rs. 216.04 crore[4], leaving a balance of Rs. 181.17 crore unutilized as on 31.03.2021.

E. Management Letter

Deficiencies which have not been included in the Separate Audit Report have been brought to the notice of the Director, NITW, through a management letter issued separately for remedial/corrective action.

v. Subject to our observations in the preceding paragraphs, we report that the Balance Sheet, Income & Expenditure Account and Receipts & Payment Account dealt with by this report are in agreement with the books of accounts.

vi. In our opinion and to the best of our information and according to the explanations given to us, the said financial statements read together with the Accounting Policies and Notes on Accounts, and subject to the significant matters stated above and other matters mentioned in Annexure to this Audit Report give a true and fair view in conformity with accounting principles generally accepted in India:

(a) *In so far as it relates to the Balance Sheet, of the state of affairs of the National Institute of Technology, Warangal, as at 31 March 2021; and*

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[3] Grants : Capital – Rs.6 crore, Revenue – Rs.199.72 crore Total = Rs.205.72 crore

[4] Expenditure Capital – Schedule – 3(C) Rs.16. 32 crore, Revenue – Schedule- 10 – Rs.199.72 crore

(b) *In so far as it relates to Income & Expenditure Account of the* ***deficit*** *for the year ended on that date.*

Director General of Audit (Central)

ANNEXURE

1. **Adequacy of Internal Audit System:** There is no separate Internal Audit Wing in the Organization. Internal Audit mechanism has been introduced with the appointment of Accounts Officers on contract basis. All proposals are now subject to internal audit.

2. **Adequacy of Internal Control System:** Internal Audit Wing was established since February 2021. TDR Registers are not being updated regularly. TDRs pertaining to current year are not being obtained from respective Banks.

3. **System of Physical verification of fixed assets:** Physical verification of fixed assets was not conducted for the year 2020-21.

4. **System of Physical verification of Inventory:** Physical verification of Inventory was completed for the year 2020-21

5. **Regularity in payment of statutory dues:** The Institute is regular in payment of statutory dues barring observation in the report.

DIRECTOR/ CEA

जितेंद्र एस. करपे,
Jitendra S. Karape, IA&AS

सत्यमेव जयते

महानिदेशक लेखापरीक्षा (केंद्रीय)
सैफाबाद, हैदराबाद - ५०० ००४
Director General of Audit (Central)
Saifabad, Hyderabad - 500 004.

No.DGA(C)/CEA/Unit-1/PA/NITW/SAR.2020-21

Dated: 07.02.2022

Audit of Annual Accounts of National Institute of Technology, Warangal, for the year 2020-21, was conducted in November 2021. Significant comments on accounts are included in the Separate Audit Report issued separately to the Government of India, Ministry of Education, New Delhi and a copy marked to you. Some of the observations, which were not included in the Separate Audit Report, meriting the attention of the Management are detailed below to enable your office to take necessary corrective action:

1. There was differential amount of Rs.6.39 lakh due to non-adoption of interest as per TDRs Ledger amounting to Rs.6.57 crore whereas Annual Accounts depicts at Rs.6.64 crore. This needs reconciliation.

2. Negative balances were shown towards outstanding Advances due from various Departments/Contractors including CPWD under Schedule-8 "Loans, Advances & Deposits".

3. Statutory Liabilities such as GST-TDS, ICC-GST, Lab & Library Deposits, Hostel Caution Money Deposit, NIT Co-operative Stores Deposit, liabilities pertaining to Sales Tax, Professional Tax, Income Tax and Seignorage Charges etc. pending which are pending for more than Five (5) years, may either be remitted to Government Account after review or taken to receipt while making a note under Schedule-24 Notes on Account.

4. The discrepancies in respect of Sanctioned Grants, Expenditure incurred and the Balance amounts available in respect of Research Projects (Projects mentioned at Sl.No.177, 178, 262, 288, 318 and 320 of Schedule-3(a)) needs to be rectified.

5. An amount of Rs.18,500 related to TEQIP-II was wrongly depicted under Investment at Schedule-7 even after closure of the Project. This needs rectification.

6. Closing balances in respect of Designated / Earmarked /Endowment funds under-Schedule-2 (Page 27 of Annual accounts) were not distinctly represented by (i) Cash and bank balances (ii) Investments and (iii) Interest accrued but not due, though mandated

as per Revised Format of Accounts prescribed by Ministry of Education. This needs rectification.

7. Tuition Fee was accounted for on cash basis instead of accrual basis in contravention to the format prescribed by MoE

8. Incorrect depiction of Fellowships & Scholarships under Schedule-3(a) Sponsored Projects instead of under Schedule-3(b) Sponsored Fellowships & Scholarships as per mandated format by MoE was noticed. This needs rectification.

9. The receipt figures exhibited in Annual Accounts under Institute overhead charges (Sl.No.41, Page 77) was Rs.36,13,274 whereas in Ledger Register, it was Rs.36,22,916 which needs to be reconciled.

10. The Institute did not maintain register in respect of Assets/Equipment procured through Research Project Funds and no physical verification was conducted during the year 2020-21.

11. An amount of Rs.1,44,76,575 received under State Government Scholarships exhibited under Schedule-3(b) and payment made in this regard was shown as payment against Earmarked fund in Receipt and Payment account instead of "Payments against Sponsored Fellowships/Scholarships". The amount received under Scholarships was not shown against "Receipts against sponsored Fellowships & Scholarships" in Receipt and Payment account. This needs rectification.

12. The Institute did not maintain separate bank account in respect of Grants received from the Ministry, Research Projects and Earmarked/Endowment Funds.

13. Ledgers were not maintained for the year 2020-21 in respect of all the accounts maintained by the Institute.

14. The following discrepancies were noticed during the scrutiny of Annual Accounts (Schedule 1 and Schedule 10) for the year 2020-21 and Provisional Utilization Certificates, which needs reconciliation.

(Amount in Rs.)

		OB	Utilised	Unutilised
Capital grants	As per UC	674680211	163208000	571472286
	As per a/cs	584348457	163207925	481140532
Revenue grants	As per UC	1002794000	1891654000	1605435892
	As per a/cs	0	1997272000	0

15. (i) The following discrepancies in Term Deposit Account balances in respect of Research Scheme Account and College Account needs reconciliation.

Name of the Account	Amount as per the Annual Accounts	Amount as per the Bankers Certificate /Working Sheets (Annexed to Annual Accounts)
Research	14,24,90,112	15,71,38,803
College	227,01,29,214	226,93,77,431

(ii) Copies of renewed TDRs in respect of Research Account were only produced instead of TDRs in respect of these amounts.

(iii) STDR Registers in respect of College and Research Account were not maintained in proper format.

(iv) Non-maintenance of separate bank accounts in respect of Research Projects as prescribed by MoE.

16. The following information was not furnished to audit:

a) List of Unserviceable articles

b) Vouchers related to the Assets worth Rs.6,78,20,222 procured in respect of three Projects.

c) Details of works for which an advance of Rs.5,20,98,000 was given to CPWD.

Yours sincerely,

Prof. N.V. Ramana Rao,
Director,
National Institute of Technology, Warangal.







NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL

TELANGANA - 506004