राष्ट्रीय प्रौद्योगिकी संस्थान वारंगल

National Institute of Technology Warangal









Academic Report | 2021-2022

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National Institute of Technology Warangal

List of Board of Governors

Prof. N. V. Ramana Rao
Chairperson I/c, Board of Governors, NITW & Director,
Nationa Institute of Technology, Warangal.



Ms. Saumya Gupta, IAS
Joint Secretary (NITs)
Ministry of Education
New Delhi.



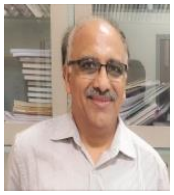
Ms. Alka Nangia Arora
Asst. Secretary & Financial Advisor
Dept. of Agricultural Research & Education
MoE, Government of India
Shastri Bhawan, New Delhi.



Prof. B.S. Murty
Director
Indian Institute of Technology, Hyderabad
Kandi, Sangareddy.



Prof. N.V. Umamahesh
Department of Civil Engineering
National Institute of Technology, Warangal.



Shri I. Ashok Kumar Reddy
Associate Professor
Dept. of Mechanical Engineering
National Institute of Technology, Warangal.



Shri S. Goverdhan Rao
Secretrary Board of Governors & Registrar
National Institute of Technology, Warangal.



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 high quality technical education. With the support of all stakeholders, the Institute has done reasonably well on all fronts in the academic year 2021-22. The Institute is continuously striving to maintain its standards and live up to the expectations during this post-COVID times. The Institute has also thrived well on all fronts in the last academic year 2020-21.

Though online teaching through LMS was 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/offline (hybrid) mode without interruption during the second semester of the academic year 2021-2022. 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 "Online" mode to post COVID hybrid and offline mode. I am sure that this experience will facilitate enhancing our outreach programs, and blended hybrid mode will become a part of our teaching- learning process.

The 20th Convocation of the Institute was held in offline mode after COVID times for two days on 3rd (UG) and 4th (PG&PhD) September, 2022. This is the first of this kind in the convocation history of NIT Warangal to have conducted in two days. Prof. SUDHIR K. JAIN, Vice-Chancellor, Banaras Hindu University, Varanasi, UP, India, was the chief guest of the first day of convocation ceremony. Dr. N. KALAISELVI, Director General, CSIR & Secretary, DSIR, Government of India, was the chief guest of second day on the occasion.

The NITW Alumni Association has been doing great work by contributing in different ways for the development of the Institute. 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 2021-22. 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. I am sure this will definitely make an impact on the NIRF ranking of NITW to move forward in the forthcoming NIRF rank from the previous rank among the engineering colleges of the country.

The Institute has been periodically starting new programs making use of the expertise available in the Institute and the demands of the society. The curriculum of all the programs is being revised by incorporating the provisions of the NEP-2020. The revised curriculum has been implemented from this academic year 2021-22. A new a 5-years integrated M.Sc program has been started from from this 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 2021-22 when compared to the previous academic year.

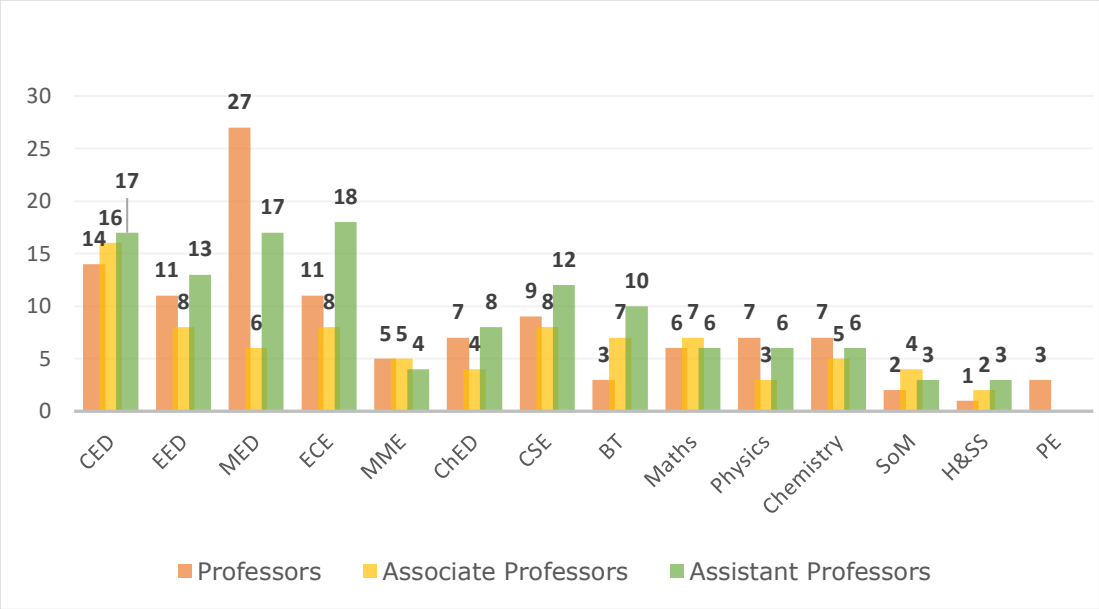
The Academic Report-2021-22 is a compilation of all the achievements of the institute, details of the academic and research activities, training and placement activities and various other developments taking place in the institute. I place on record my deep sense of appreciation to all those involved in the preparation of this Academic Report. I also take this opportunity to thank the members of the faculty, non-teaching staff, students and alumni of the institute, who are relentlessly working for the betterment of the institute.

Prof. N.V. Ramana Rao
Director
NIT Warangal

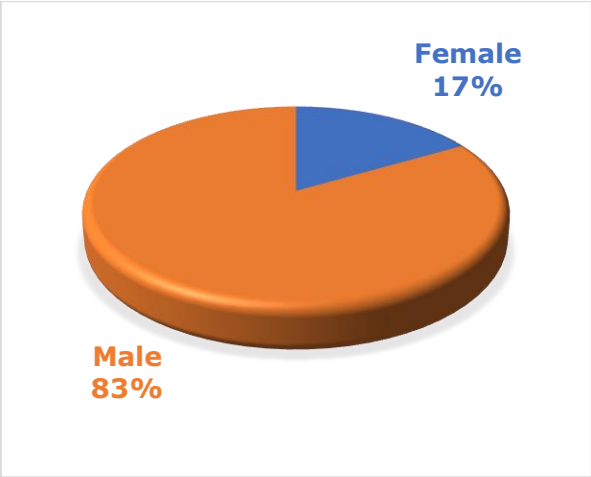
Faculty Details

Total Faculty on Rolls: 319

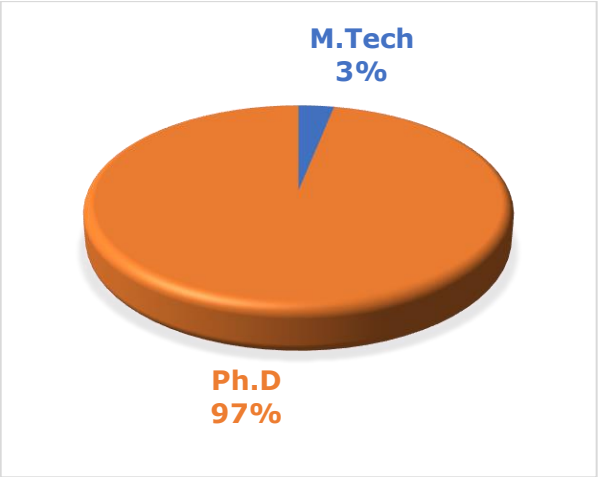
Department wise faculty distribution:



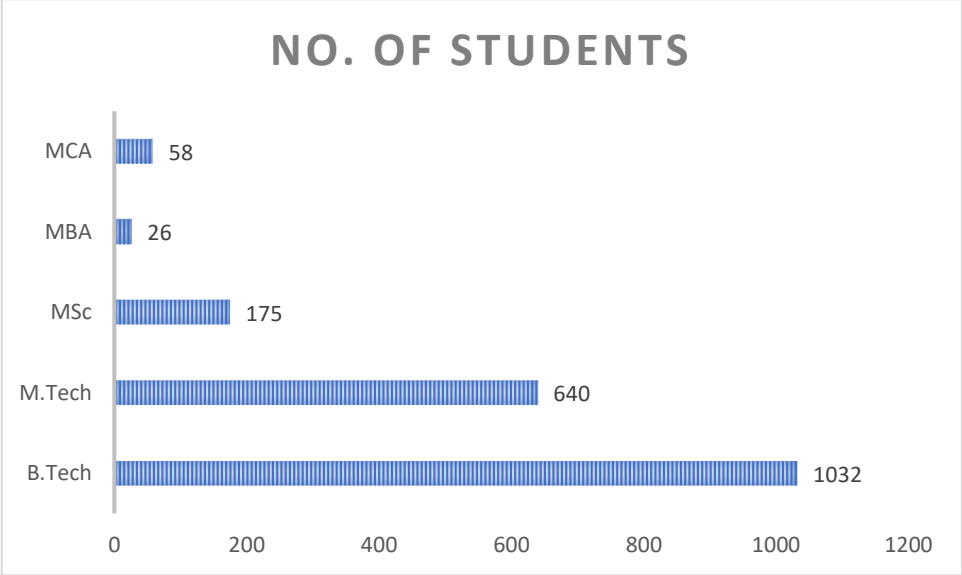
Faculty details: Gender Wise



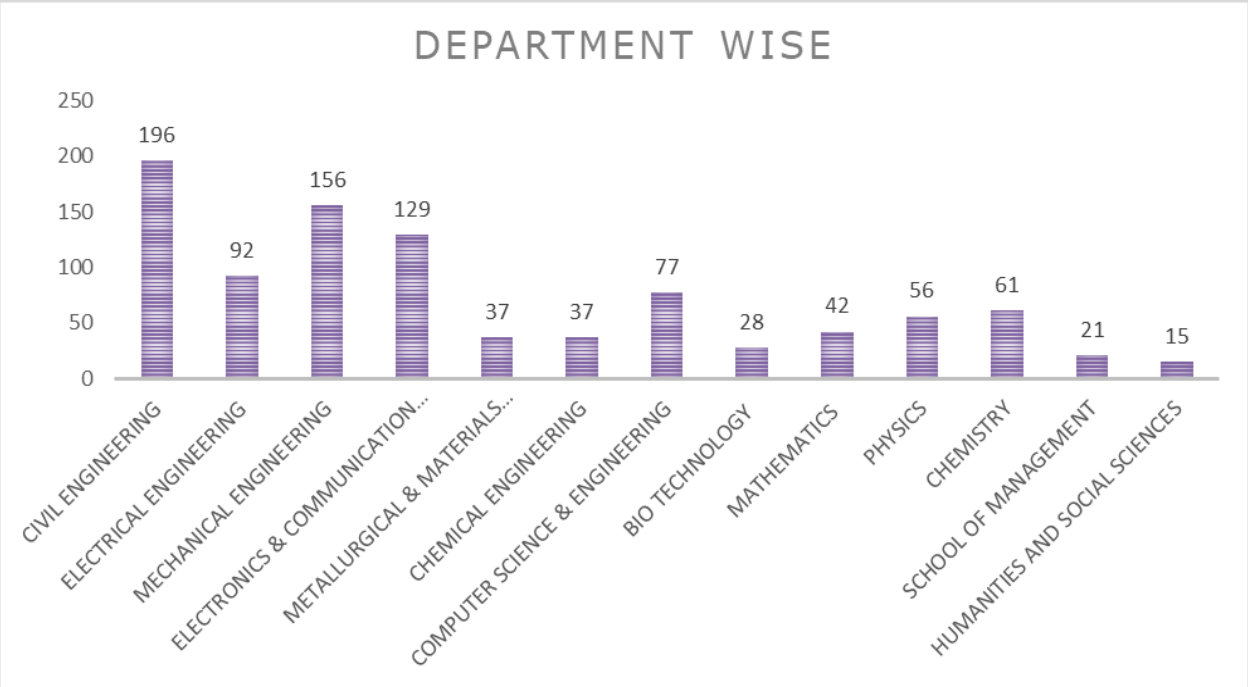
Faculty details: Qualification Wise



Students Admitted during 2021-2022



PhD Scholars-Department Wise



Placement Report 2021-2022

Centre for Career Planning and Development (CCPD)



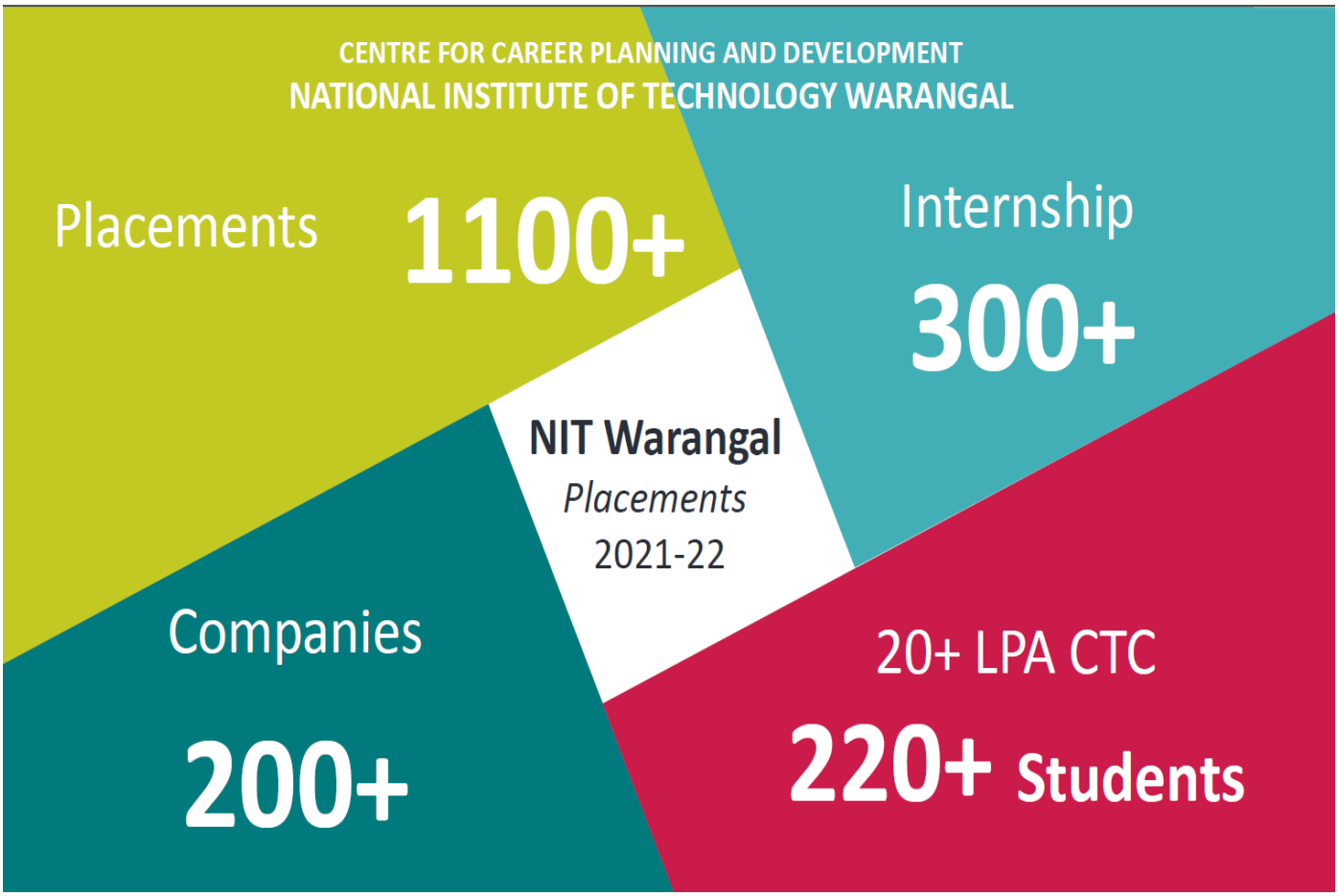
Type of Jobs Offered to Students:

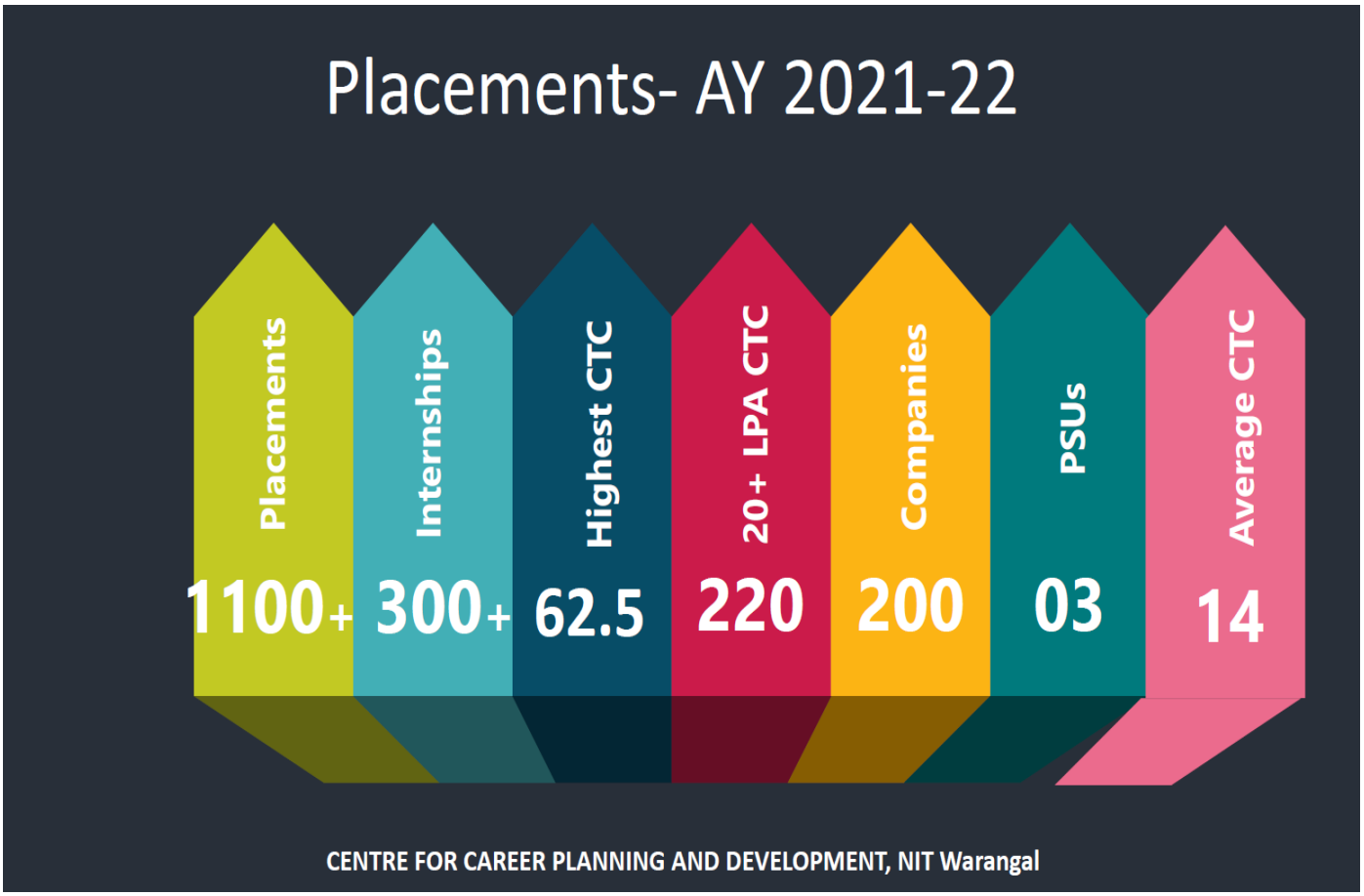
- Core
- IT
- Business
- Analytics
- Banking
- Teaching
- NGO

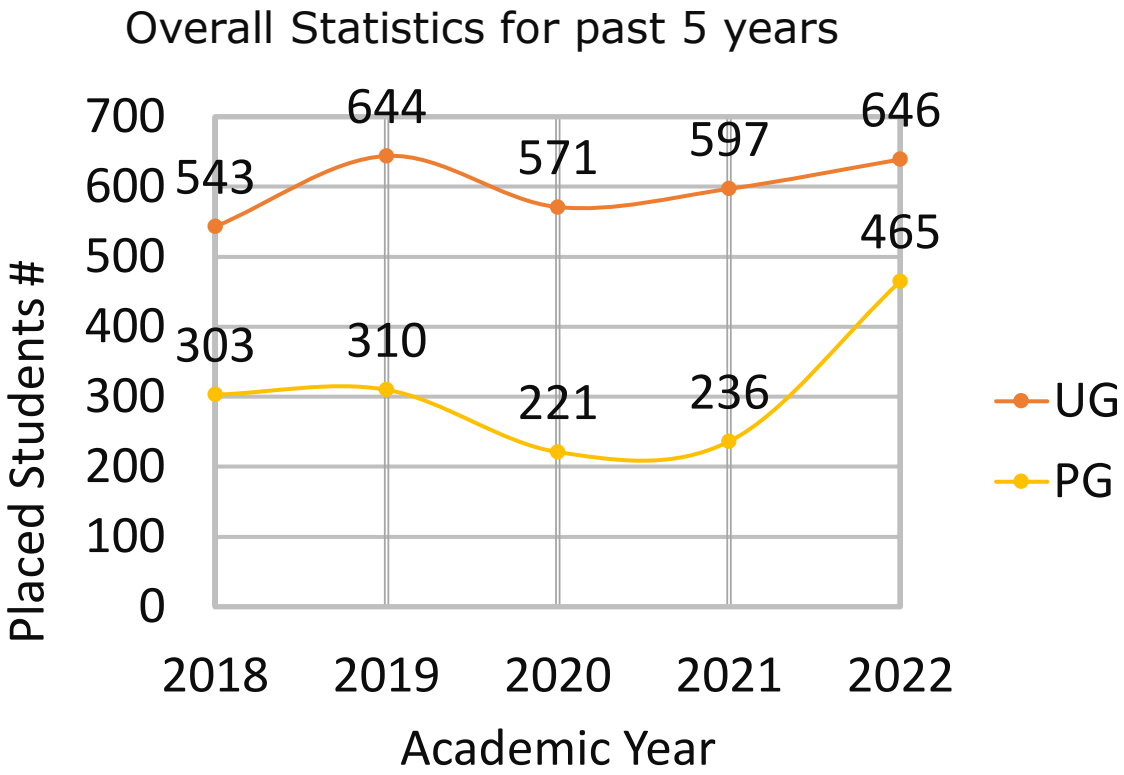
Type of Recruiters visit NIT Warangal for on-campus Placements:

- Government
- PSU
- MNC
- Private




CENTRE FOR CAREER PLANNING AND DEVELOPMENT
NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL
Placements
1100+
Internship
300+
NIT Warangal
Placements
2021-22
Companies
200+
20+ LPA CTC
220+ Students


Placements- AY 2021-22
Placements
1100+
Internships
300+
Highest CTC
62.5
20+ LPA CTC
220
Companies
200
PSUs
03
Average CTC
14
CENTRE FOR CAREER PLANNING AND DEVELOPMENT, NIT Warangal



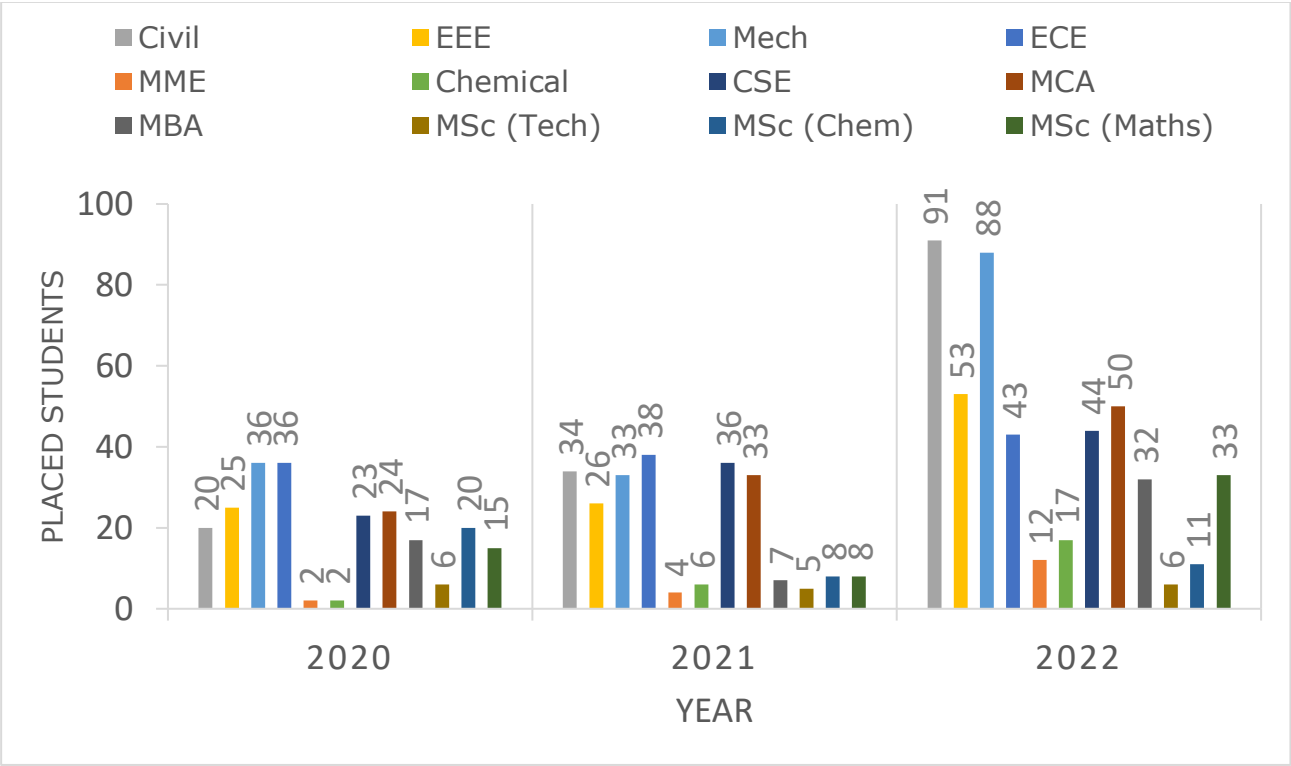
UG Placement Statistics for 2021-22

Branch	Total Students (Eligible*)	Placed	Max. Sal LPA	Avg. Sal. LPA
Civil Engg.	109(73)	60	16	8.93
EEE	133(113)	103	32.5	15
Mechanical Engg.	154(119)	114	37	11.05
ECE	140(113)	107	45.03	18.96
MME	57(38)	30	32	12.83
Chemical Engg.	103(74)	70	26.1	10.09
CSE	143(129)	70	62.5	25.5
Bio-Technology	60(42)	34	31.5	10.62

Number of BTech students placed for the past five years



PG Placements Statistics



Placement activities for AY 2022-2023

- Placement season started in August 2022
- No. of Companies visited so far: nearly 55
- No. of students placed so far: 380+
- No of students got/doing internship: 340+
- Students with CTC more than 19.9 LPA are >200

Central Library





Dr. Venu Gopal A
Chairman, LAC
(Till 23rd Jan 2022)



Dr. Kasi Viswanadham K N S
Chairman, LAC
(23rd Jan to 21st Mar 2022)



Dr. N. V. Umamahesh
Chairman, LAC
(21st March 2022 onwards)



Dr. K. Veeranjaneyulu
Librarian



Sri. Iranna M. Shettar
Deputy Librarian
(Joined on 18th Oct 2022)



Sri. G. Balakrishna
Assistant Librarian

Introduction:

The Central Library at the National Institute of Technology, 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, video lecture halls, digital library, book banks, separate reference area (TEQIP hall). The Central Library supports the regular academic activities of the institute (teaching 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.

Vision:

Our vision is to provide high-quality scholarly resources and services, and an environment that encourages NITW user community to achieve excellence in learning and research.

Mission:

The Central Library supports the academic, research and life-long learning activities by providing quality information resources, services and facilities to students, faculty, staff, and researchers of NITW.

Objectives:

1. A Library is the heart of any Academic Institution and plays a vital role in supporting teaching, learning and research by providing the required learning resources, and an ambiance of a quiet and comfortable place for study.
2. The Central library’s main objective is to accomplish its given task of fulfilling all the information needs of the academic community of NITW consisting of Students, Research Scholars and Faculty.
3. To achieve this, the Central Library is fully automated and has a wide range of learning resources including the latest books on engineering and allied disciplines, and also subscribes to many national and international journals both in print and electronic formats.

Learning Resources (including e-resources):

The Central Library has a wide range of resources on Engineering, Technology, Sciences, Management and Humanities & Social Sciences.

Sl. No.	Collection	Quantity
1.	Books (No. of Volumes)	1,87,014
2.	No. of. E-Books	222
3.	Books (No. of Titles)	22,912
4.	No. of e-journals subscribed	7,870
5.	No. of Print Journals	22
6.	No. of Books in Book Bank (including SC & ST Book Bank)	30,445

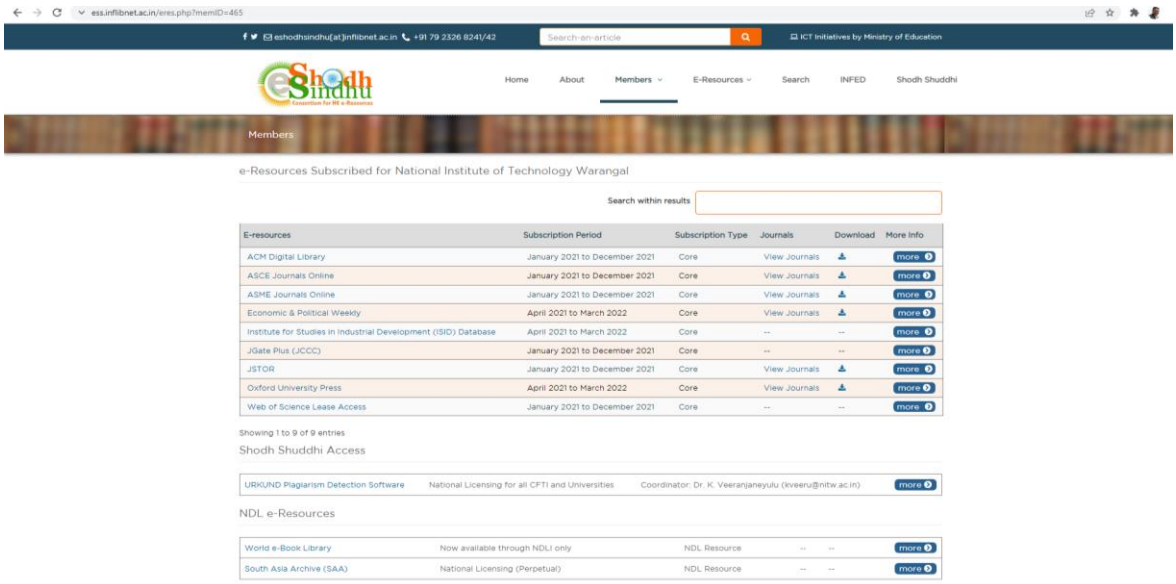
The Central Library of NIT Warangal is a member of the e-ShodhSindhu consortium and subscribes to online journals through the e-ShodhSindhu consortium and the institute funds. Through the MyLOFT App, research scholars and faculty members can access e-resources subscribed by the NITW anywhere and anytime. The details of the e-journals subscribed by NIT Warangal are as follow:

NIT, Warangal subscribed e-journals and databases:

Sl.No.	Name of the Database / Publishers	No. of Journals
1.	ASTM Standards + Digital Library	Database
2.	Elsevier Science Direct	1,129
3.	Emerald e-ShodhSindhu	312
4.	Royal Society of Chemistry	46
5.	Sage - Materials Science & Engineering Collection	78
6.	SciFinder Scholar	Database
7.	Springer Link	1,714
8.	Taylor & Francis	349
9.	American Chemical Society Journals	64
10.	IEEE Online	558
11.	MathSciNet	Database
12.	John Wiley & Sons Ltd	11
13.	IOP Journals	4
14.	World Scientific e-journals	2
15.	AIP Journals	2
16.	SIAM e-journals	2
17.	ICE Publishing E-Journals	2
18.	NRC Research Press Journals	2
	Total	**4,275**

E-Resources Provided by INFLIBNET through ESS Consortium:

Sl.No.	Name of the Database / Publishers	No. of Journals
1.	ACM Digital Library	1,153
2.	ASCE Journals Online	36
3.	ASME Journals Online	29
4.	Economic & Political Weekly	1
5.	Institute for Studies in Industrial Development (ISID)	Abstract Database
6.	JGate Plus (JCCC)	Abstract Database
7.	JSTOR	3,165
8.	Oxford University Press	262
9.	Web of Science	Citation Database
	Total	**4,646**



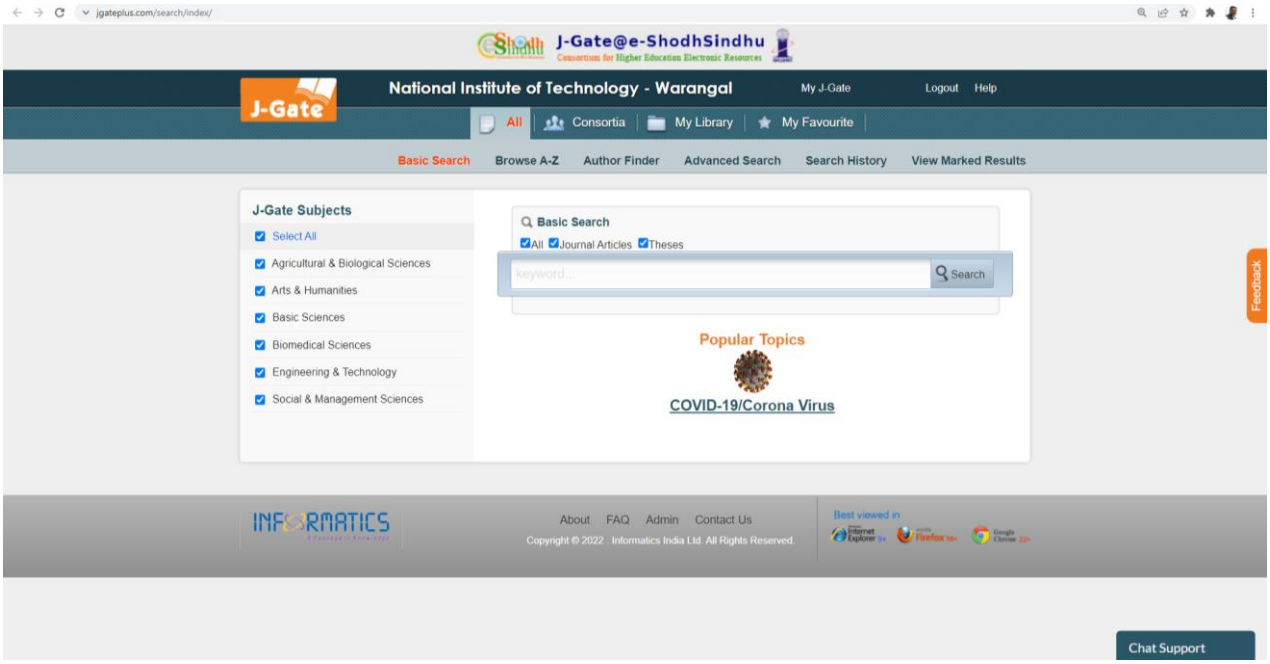
E-Journals Usage Statistics:

Name of the Database	2019	2020	2021
ACM Digital Library	1,728	942	1,056
ASCE	6,361	3,987	4,849
ASME	2,210	1,096	1,219
ASTM DL	2,360	1,539	1,032
Emerald	6,259	4,626	7,713

IEEE	1,74,575	93,823	1,23,233
JSTOR	1,981	1,547	1,865
OUP	1,007	656	859
ScienceDirect	1,31,594	1,10,440	1,48,785
SciFinder	21,098	28,517	49,282
SpringerLink	47,526	54,902	75,920
Taylor & Francis Online	17,194	12,286	16,463
WoS	3,152	4,296	8,571

Resource Sharing:

J-Gate@e-ShodhSindhu provides a single point search for consortia subscribed, library subscribed and open access journals. Portal to discover, access and share journal articles online within the institutes participating.



Accessibility to students:

Total built-up area	4,000 Sq. Mts
Library Staff Members	08
Number of Books	1,87,014
Reprographic facility	Yes
Number of seats in reading space	472

Data usage of the Library	Student – 6000 No.s, Faculty – 319 No., Non-Teaching Staff – 303 No.s
Annual Budget	5 Crore (Approx.)
Timing during working days	8:45 A. M. to 9:00 P.M.
Timing on Saturdays & Sundays	9:00 A.M. to 5:00 P.M. (Closed on National Holidays)

Digital Library:

The Central Library has acquired and installed 60 new computers with higher configurations (32 RAM and 1 TB HDD) for the Digital Library for the benefit of faculty and students.



Photocopying and Printing service:

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

Support to students for self-learning activities:

- Central Library conducts user orientation programs to the newly joined faculty and students about the facilities available in the Library.
- Central Library has been WI-Fi enabled to provide wireless access to the Internet. Users are welcome to use their laptops in the library.

Web Online Public Access Catalogue (OPAC):

The Central Library has implemented KOHA - Integrated Library Management Software for the automation of 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.

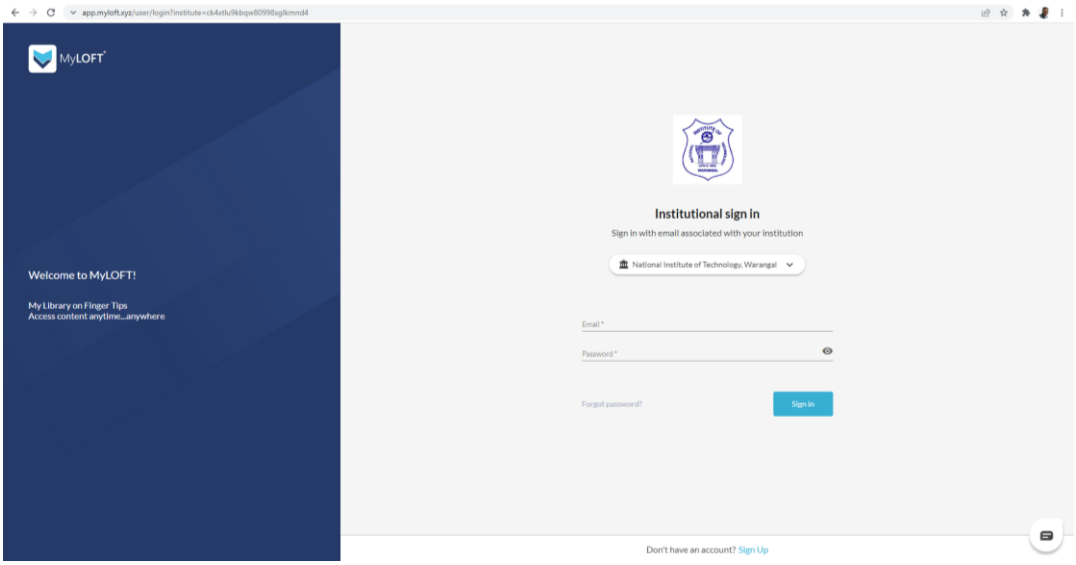
http://nitwopac.in:7071/

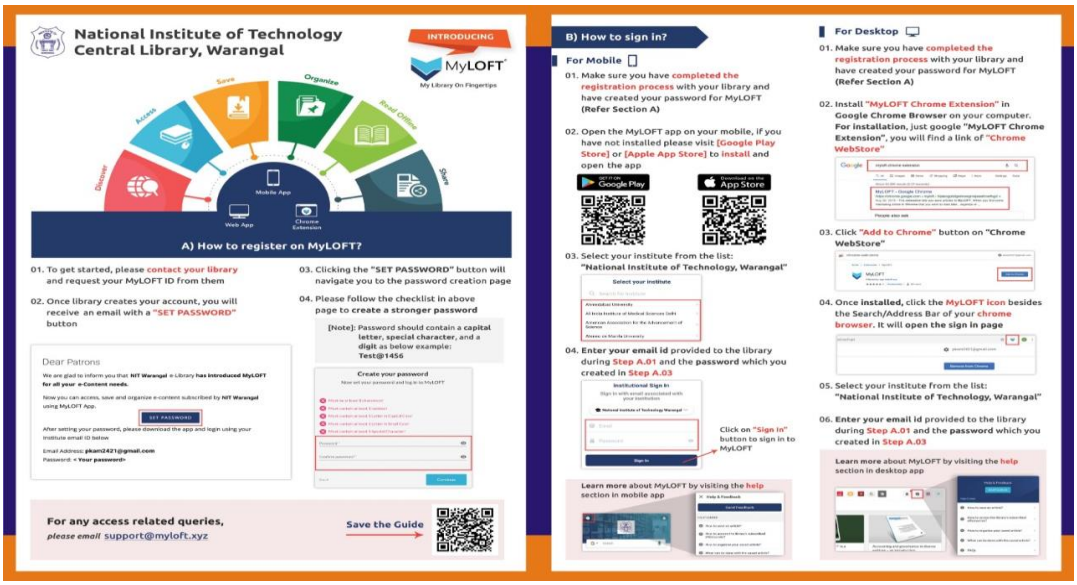


Remote Access Service:

Central Library, NITW introduced a new service called "Remote Access Services - MyLOFT (My Library On Fingertips)" for the benefit of Research Scholars and Faculty. MyLOFT is a mobile App. Through MyLOFT research scholars and faculty can access e-resources subscribed by the NITW anywhere and anytime.

https://app.myloft.xyz/user/login





Central Library organized programs:

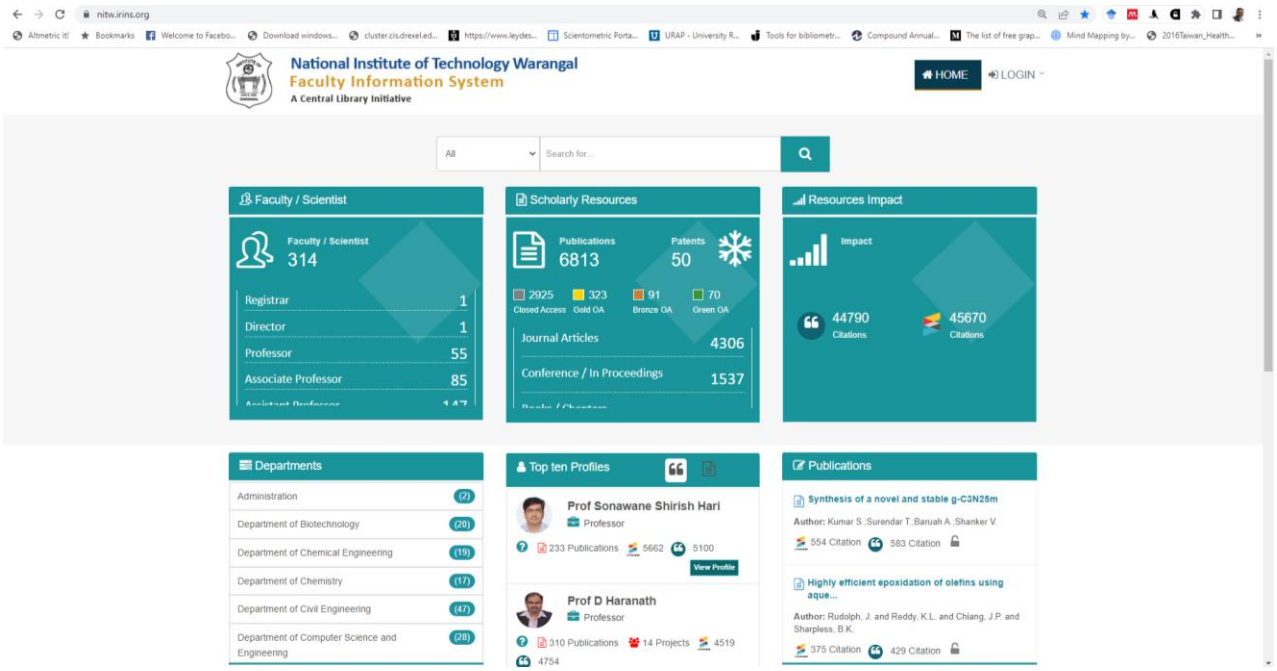
- Central Library, National Institute of Technology, Warangal has organized a Webinar on "Key Scientific Writing Strategies for building a strong Manuscript" on 10th and 12th August 2021 from 4:00 P.M. to 6:00 P.M. in collaboration with ACS Publications for the benefit of Faculty, P.G. and Ph. D. Students.
- Central Library, National Institute of Technology, Warangal has organized a Webinar on "Challenges and Opportunities for Environmental Sustainability in World's Fastest Growing Region" on 08th September 2021 from 4:00 P.M. to 6:00 P.M. in collaboration with ACS Publications for the benefit of Faculty, P.G. and Ph. D. Students.
- Central Library, National Institute of Technology Warangal is organized a Webinar on "Use of Online Digital Information Resources" on 16th September 2021 at 4.30 p.m. for the benefit of Faculty, Research Scholars and P.G. Students.

NITW - Faculty Information System

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 support the integration of 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:

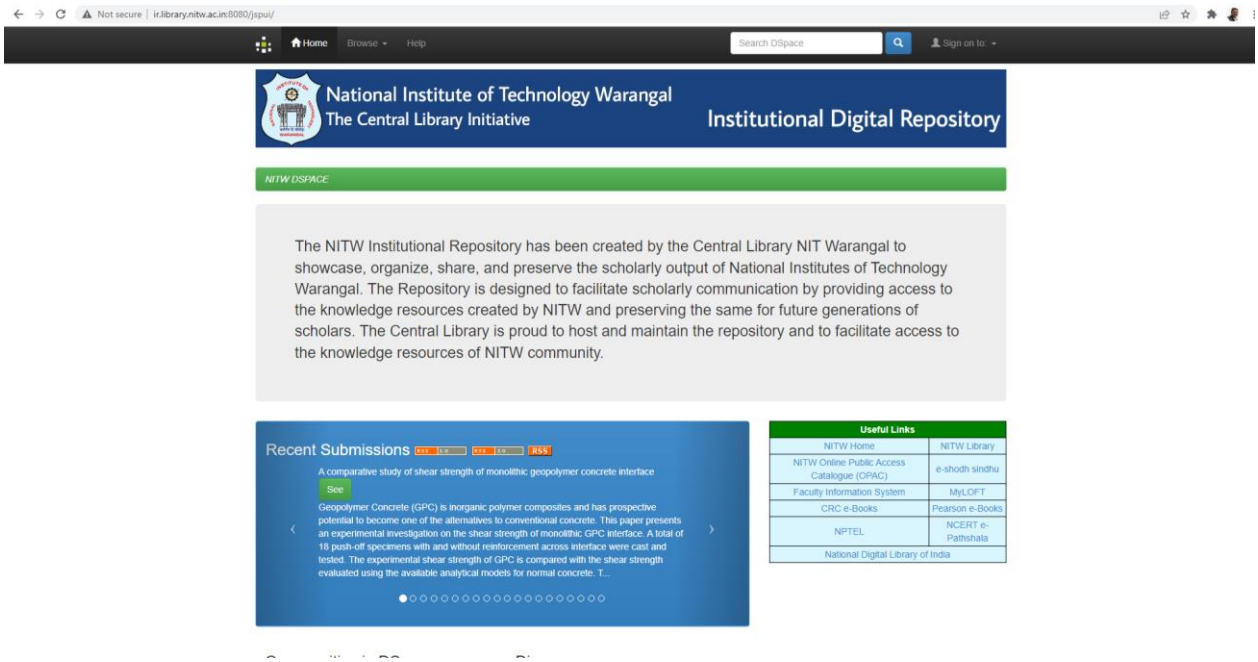
https://nitw.irins.org/



Institutional Repository:

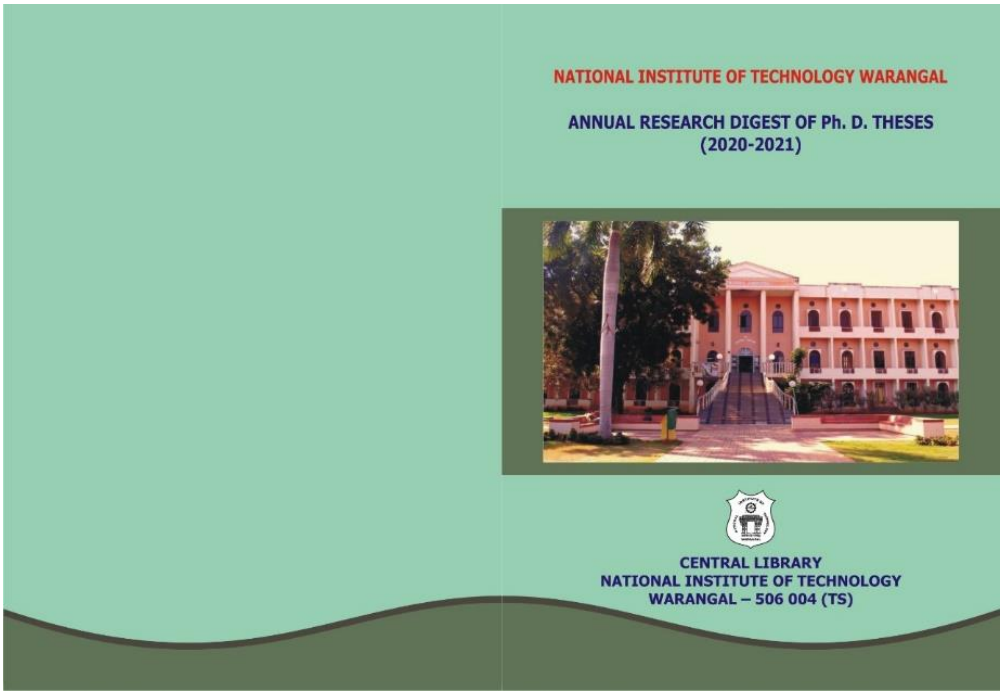
The Central Library NITW has created the Institutional Repository to showcase, organize, share, and preserve the scholarly output of the National Institutes of Technology Warangal. The Repository is designed to facilitate scholarly communication by providing access to the knowledge resources created 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.

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



NITW – Annual Research Digest of Ph. D. Theses

The Central Library brings the "Annual Research Digest of Ph.D. Theses of NITW" for the benefit of Students, Research Scholars and Faculty not only to know the Doctoral Research work completed in the Institute but also to identify the research problems for their future research work.



Compilation of Open Access e-Resources:

Central Library, NITW has compiled a discipline-wise list of Open Access E-books and Open Access E-Journals for the benefit of faculty, students and scholars. These resources are hosted on Web-OPAC which can be accessible from anywhere, anytime.



Central Library
National Institute of Technology, Warangal
Online Public Access Catalogue (OPAC)

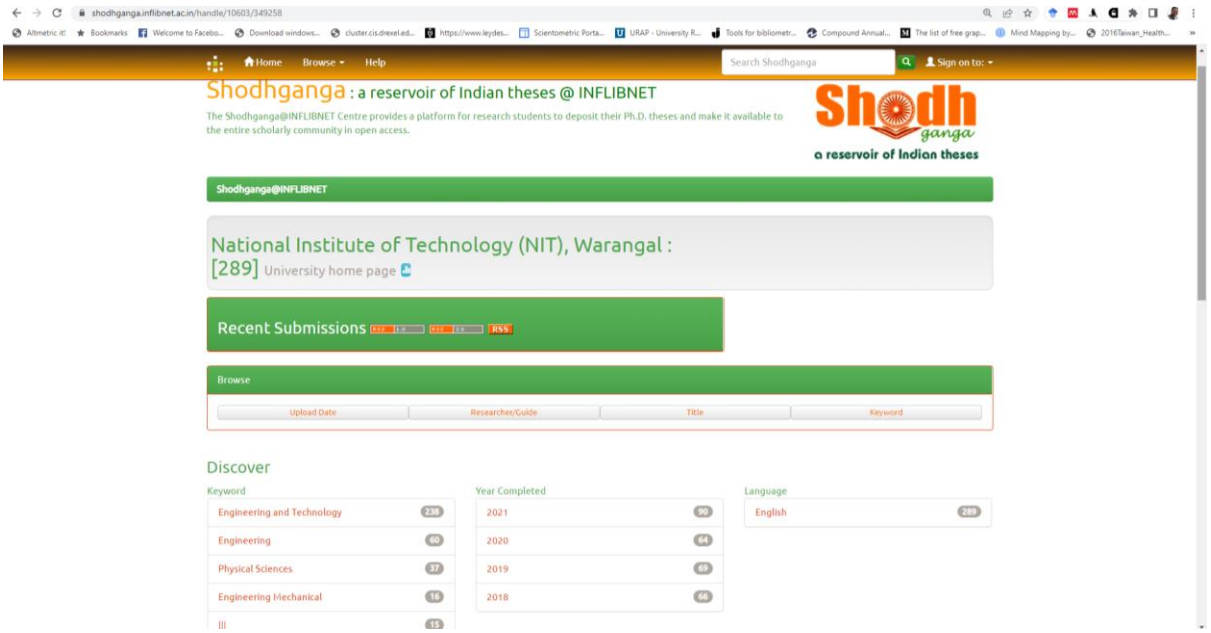
Open Access E-books

S.No.	PARTICULARS	ACTION
01	Department of Civil Engineering	Click Here
02	Department of Electrical Engineering	Click Here
03	Department of Mechanical Engineering	Click Here
04	Department of Electronics and Communication Engineering	Click Here
05	Department of Metallurgical and Materials Science Engineering	Click Here
06	Department of Chemical Engineering	Click Here
07	Department of Computer Science and Engineering	Click Here
08	Department of Biotechnology	Click Here
09	Department of Mathematics	Click Here
10	Department of Physics	Click Here
11	Department of Chemistry	Click Here
12	Department of Humanities and Social Sciences	Click Here
13	School of Management	Click Here

Shodhganga:

Full-text of Ph.D. theses are uploaded on the Shodhganga: A Reservoir of Indian Theses @ INFLIBNET. NITW Theses may be accessed from the below link:

https://shodhganga.inflibnet.ac.in/handle/10603/349258



Inauguration of OPAC Kiosk and release of books published by Central Library

Prof. N. V. Ramana Rao, Director, NITW, has inaugurated Online Public Access Catalogue (OPAC) Kiosks at the Central Library on 12-10-2021 for the benefit of Faculty and Students.

Hon'ble Director has also released two books compiled and published by Central Library on the same occasion entitled "*Open Access Journals in Engineering and Allied Sciences*" and "*Annual Research Digest of Ph. D. Theses (2019-2020)*".





NITW Librarian has Received Best Paper Award at Intl. Conference:

Dr. K. Veeranjaneyulu, Librarian, has received the Best Paper award for the paper entitled "*Transformation of National Institute of Technology-Warangal library during COVID-19 pandemic*" presented and published in the "4th I – LISS International Conference on Transition or Transformation of Libraries due to COVID Pandemic: Lessons to Learn" organized by International Library and Information Science Society, co-hosted by The Tamil Nadu Dr. Ambedkar Law University, Chennai, Tamil Nadu, India in association with JISTaP, Keimyung University, South Korea and Jeonbuk National University, South Korea.

Indexing of more than 1000 papers of NITW in the Scopus Database:

For the first time in the history of NITW, the total number of articles published in any calendar year by the faculty and scholars indexed in SCOPUS has crossed 1,000

in the year 2021. It is a landmark achievement and will undoubtedly help to achieve further milestones in the various ranking frameworks in the coming years.

Procurement of Print Books:

Central Library procured 1439 Print books for the financial year 2021-22 as per the recommendations of the Heads of Departments. The books were processed and ready for use.

Best Practices:

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

- Circulation of the information brochure to the newly joined students of the students, faculty, and staff.
- Conducting user orientation programs to the newly joined faculty and students about the facilities available in the Central Library.
- Information display and notifications by the institute and other institutes of the country.

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 as well as from the other states. Also, the Central Library allows using the electronic content (journals and e-books) to the resident participants of various faculty development programs and GIAN programs conducted by the Institute.

Library expenditure on books, magazines/journals and miscellaneous contents:

Year	Expenditure (in Rs.)					
	Books	Magazines/ Journals (Print subscription)	e-Journals & Databases	Equipment/ Furniture	Misc. Exp.	Total
2021-22	2,75,776.00	89,100.00	3,67,57,506.40	3,46,920.00	3,56,899.00	3,78,26,201.40
2020-21	26,76,732.00 (e-Books)	43,580.00	2,91,94,331.00	23,68,286.00	1,45,233.00	3,44,28,162.00
2019-20	Nil	83761.00	2,84,25,105.00	6,08,804.00	1,63,732.00	2,92,81,402.00
2018-19	11,88,880.00	1,64,171.00	3,04,88,111.00	Nil	98,223.00	3,19,39,385.00

Discipline-wise collection status

Department	No. of Titles	No. Volumes
Civil engineering	13,118	29,347
Electrical Engineering	7,587	18,535
Mechanical Engineering	11,613	24,671
Electronics & Communication Engineering	7,643	18,709
Metallurgical and Materials Engineering	4,311	8,452
Chemical Engineering	4,299	8,724
Computer Science & Engineering	9,797	22,760
Mathematics	6,527	11,661
Physics	6,860	10,399
Chemistry	5,040	9,630
Management	2,543	4,877
Biotechnology	674	2,282
General	6,407	10,772
Humanities and Social Sciences	3,246	5,838
Total	**89,665**	**1,86,657**

Research Productivity:

Period	No of Publications	No of Citations	h-Index
Overall	7018	60,119	80

Year	No of Publications	No of Citations	h-Index
2019	783	4,399	27
2020	902	4,051	24
2021	1,031	1,751	13

Year-wise Transactions Statistics:

Year	No of Books Checked-out	No of Books Checked-in	No of Daily Visitors (Approx.)
2019	30,158	33,675	569
2020	6,878	7,514	546 (Except Pandemic Period)
2021	400	4,531	N.A. (Pandemic Period)

Journal Publications:

- Rathinasabapathy, G., & **Veeranjaneyulu, K.** (2021). *Scholarly Open Access Veterinary and Animal Science Journals indexed in the DOAJ: A Bibliometric Analysis*. Library Philosophy and Practice, 1-13.

- Rathinasabapathy, G., & **Veeranjaneyulu, K.**, & Kandpal, K.N. (2021). *Knowledge Mapping of Bluetongue Disease Research: A Scientometric Analysis (1940-2020)*. Innovations, 66, 593-611.

- **Veeranjaneyulu, K.,** & Rathinasabapathy, G. (2021). *Design and Development of a MOOC on Information Handling Skills in Teaching, Learning and Research: A Case study*. Library Philosophy and Practice, 1-16.

- Rathinasabapathy, G., & **Veeranjaneyulu, K.** (2022). *Open Access Journals in Agriculture and Allied Sciences: A Study based on Directory of Open Access Journals (DOAJ)*. Library Philosophy and Practice, 1-14.

- Hadagali, G. S., Bulla, S. D., & **Shettar, I. M.** (2021). *Indian Institutes of Technology's Websites in India: A Webometric Analysis*. Journal of Indian Library Association, 57(4), 143-154.

- **Shettar, I. M.**, Hadagali, G. S., & Gupta, B. (2022). *Impact of Covid-19 on global economy: A scientometric analysis of global literature*. Library Herald, 60(1), 27–43. https://doi.org/10.5958/0976-2469.2022.00003.3

- **Shettar, I. M.**, & Hadagali, G. S. (2022). *Open Education Research: A Scientometric Analysis*. Journal of Indian Library Association, 58(1), 172-188.

Conference Papers Published:

- **Veeranjaneyulu, K.** (2021). Transformation of National Institute of Technology Warangal Library during COVID-19 Pandemic. *In* Oh, Dong-Geun., et al. (Eds.), *Transition of Transformation of Libraries due to COVID Pandemic: Lessons to Learn (Proceedings of the 4th I-LISS International Conference – IIC 2021)*. 85-94. (ISBN - 978-93-84136-23-9)

- **Veeranjaneyulu, K.** (2022). Open access and Scholarly Communication initiatives by the National Agricultural Research and Education System. *In* Ramesh Babu, B., et al. (Eds.), *International Conference on Open Access and Information Services during Post-Covid Times: Challenges and Opportunities (Volume – II)*. 941-959. (ISBN – 978-81-85216-54-6)

Book Chapters Published:

- **Veeranjaneyulu, K.**, & Rathinasabapathy, G. (2021). Visibility of Research output of State Agricultural Universities of India in ResearchGate. In Dynamics of Agricultural Library and Information Services. *In* Veeranjaneyulu, K., et al. (Eds.), *Dynamics of Agricultural Library and Information Services*. New Delhi, AgriBioVet, 20-41. (ISBN– 978-93-84502-96-6)

- **Veeranjaneyulu, K.** (2021). National Institute of Technology on The Researchgate Social Networking Site: A Quantitative Study. *In* Ramesh Babu, B., Krishnamurthy, C., & Hadagali, G. S. (Eds.), *Libraries and Resource Management in the Knowledge Society*. New Delhi, Shree Publishers & Distributors, 404-415. (ISBN- 978-93-90674-28-2)

- **Veeranjaneyulu, K.**, & Rathinasabapathy, G. (2022). Use of drones and Unmanned Aerial Vehicle (UAV) for Library Management and Services: Opportunities and Challenges. *In* Veeranjaneyulu, K., et al. (Eds.), *The Future of Agricultural Librarianship: Challenges and Opportunities*. New Delhi, Today & Tomorrow's Printer & Publishers. (ISBN - 9788170197195)

- **Veeranjaneyulu, K.**, & Rathinasabapathy, G. (2023). Emerging Technologies Transforming the Library and Information Services: An Overview. *In* Kandapal, K. N. et al. (Eds.), *Libraries: From Clay Tablet to Fablet*. New Delhi, AgriBioVet, 43-66. (ISBN – 978-93-93405-07-4)

- **Shettar, I. M.**, & Hadagali, G. S. (2023). Impact of Open Access Publication in Veterinary Sciences in India: A Scientometric Study. *In* Kandapal, K. N. et al.

(Eds.), *Libraries: From Clay Tablet to Fablet*. New Delhi, AgriBioVet, 144–157. (ISBN – 978-93-93405-07-4)

Books Edited:

- **Veeranjaneyulu, K.**, Rathinasabapathy, G., Jadhav, U.S., & Kandpal, K. N. (2021). *Dynamics of Agricultural Library and Information Services*. Dynamics of Agricultural Library and Information Services. New Delhi, AgriBioVet. (ISBN–978-93-84502-96-6)

- Rathinasabapathy, G., **Veeranjaneyulu, K.**, & Srinivas, V. (2021). *Management of Knowledge Resources Centers in the Networked Digital Environment*. Hyderabad, BS Publishers. (ISBN – 978-93-90211-65-4)

- Rathinasabapathy, G., **Veeranjaneyulu, K.**, Hazarika, C., & Gohain, H. K. (2022). *Innovation, Growth and Sustainability of Agricultural Libraries*. Hyderabad, BS Publishers. (ISBN – 978-93-91910-36-5)

- **Veeranjaneyulu, K.**, Rathinasabapathy, G., Gautham, M., Sharma, Y. (2022). *The Future of Agricultural Librarianship: Challenges and Opportunities*. New Delhi, Today & Tomorrow's Printer & Publishers. (ISBN - 9788170197195)

- **Kandapal, K. N.**, Rathinasabapathy, G., & Veeranjaneyulu, K. (2022). *Libraries: From Clay Tablet to Fablet*. New Delhi, AgriBioVet. (ISBN – 978-93-93405-07-4)

LIBRARY STAFF:

Professional Staff:

DESIGNATION	NAME	QUALIFICATION
Librarian & Head	Dr. K. Veeranjaneyulu	Ph.D., M.Com., M.L.I.Sc, B.G.L., PGDLAN
Deputy Librarian	Sri. Iranna M. Shettar	B.Sc., M.L.I.Sc., M.Phil, PGDLAN
Assistant Librarian	Sri. G. Balakrishna	B.Sc., M.L.I.Sc.
Lib. & Info. Asst.	Sri. Kanishka Samanta	M.L.I.Sc.

Supporting Staff:

NAME	DESIGNATION
Sri. A. Someshwar Rao	Senior Assistant
Sri. A. Sambaiah	Jr. Assistant (UG)
Smt. B. Jaya Sree	Technician
Sri. T. Ramesh	Sr. Caretaker
Sri. P. Saraiah	Technician
Sri. P. Eshwar	Jr. Assistant (UG)

NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL

TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME PHASE III

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/Institutionsin all aspects of the World Bank assisted projects. During 1991 to 2007, NPIU implemented three TechnicianEducation Projects of Government of India assistedby 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 the World 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.

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 witha budget outlay of Rs.7.0 Crores. This Project willfurther improve the quality of Post-Graduate teaching, catalyze the R& D activities, promote theFaculty 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

1. *Innovation and startups:*

i.) Entrepreneurship and Design Thinking Workshop for students was conducted in the month of February2021, followed by a competition.

ii.) Open source and product development workshop was conducted in February 2021, followed by acompetition 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 studentresearch project.

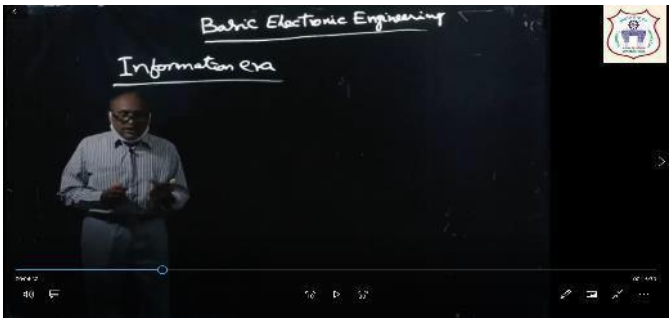
3. *Light Board Setup:*

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 alsohelpful when a lot of videos need to be made in a short period of time. Students would prefer learningfrom light board videos because the experience is very much similar to the instructors teaching usingthe 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 canbe used for recording of chalk and talk kind of video lecture as part of asynchronous mode of deliveryof 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. Napkinvending machine in Girls common room and Incinerator for managing the used napkins were providedin the Ladies Hostel.



Professor C B Rama Rao delivering lecture on Lightboard


Lightboard Studio, 009, Department of Chemical Engineering & Biotechnology Building (New), NITW

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

DepartmentName	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 Scienceand 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

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

- 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 studyof Mumbai Trans Harbour Link" on 25th November 2020.

- 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.

- 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.

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

- 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 inRs.**
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



The Center of Innovation and Incubation (CII) is a G+2 building, with a floor space of approx 30,000sq 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 thefollowing 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 expansionand 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.

WEBINARS (10 WEBINARS BY EXTERNAL EXPERTS)

4

Ideation Talk
21st August '21

Innovative Challenges & Research Opportunities
23rd December '21

Data Science & AI ML roles
12st February '22

Auroras Talks Series
- Startups for next generation
- Technologies that are in focus for decades to come

25th – 30th October '21

Entrepreneurship 101

Aman Dhattarwal (ApniKaksha) - 8th February '22
Harishankar Karunanidhi (HackerRank)- 11th February '22
Yuvan Arvind (Student Entrepreneur) - 15th February '22
Aditya Arora (Faad Network) - 23rd February '22
Vatsal Kanakiya (100X.VC) - 3rd March '22
Shobana Prakash (100X.VC) - 5th March '22

STUDENT-RUN STARTUPS

6

- BugClaim
- GBit Studios
- Founder's Bay
- Doge Home
- Fash Back
- Engagely

Faculty/ALUMNI-RUN STARTUPS

7

- Sigma Store
- Kalam Books
- Skylark Labs
- Cusmat
- EPICK Bikes
- Hemal Tech Solutions
- Sky e its
- Geo Spatial Technologies
- Teraiot

PATENTS

8

- Total Patents: 73
- Granted: 9
- Renewals: 3
- New Patent Applications: 16

RESOURCES AND FACILITIES

9

- Rapid Prototyping Lab
- Machine Learning Lab
- Hardware Shop
- Podcast Set-up
- 3D Printer
- Laser Cutter

UNDERGROUND RESEARCH ASSOCIATION

10

- Ronin Racing
- Robotics Club
- Team Mechaholics
- Team Mechxhausters

EXTERNAL REPRESENTATION BY IG

11

- Balavikas International Center (BVIC), Hyderabad
- Smart India Hackathon (SIH)
  15 TEAMS REPRESENTED NIT WARANGAL AND 1 TEAM GOT WINNERS CERTIFICATE
- Azadi Ka Amrut Mahotsav - Amrut Bharat App
- WE HUB Hyderabad Conferences

COLLABORATIONS

12

Filecoin DigitalOcean Devfolio

Sketch Gather #startupindia

100x celo invact FUTURE OF EDUCATION polygon

Tezos YES STARTUPS Growth School

MISSION AND VISION

13

Our Mission

To provide the necessary infrastructure, mentorship, seed funding, and resources & facilities to convert innovative ideas into working prototypes, independent businesses, or products in line with our entrepreneurial vision.

CENTER FOR INNOVATION INCUBATION

Our Vision

To accelerate the development of the technology and startup culture among students and promote the entrepreneurial ecosystem at NIT Warangal.



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

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.



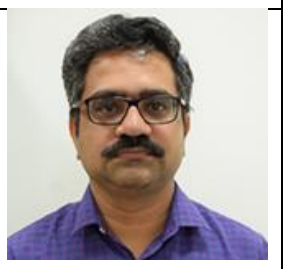
Faculty Details

S. No.	Name of the Faculty and Designation	Highest Qualification and Date of Joining	Research Interests	Photograph
1	Prof. N.V. Ramana Rao Professor and Director	Ph.D.	Vibrations, FEA, Structural Shape Optimisation of axisymmetric & prismatic shells & folded plates,GeopolymerConcrete,Composites,Ferrocement	
2	Dr. T.D.Gunneswara Rao Professor and HoD	Ph.D.	Fracture mechanics of Concrete structures, Fiber Reinforced Concrete, Reinforced Concrete, Sustainable construction materials	
3	Dr. N.V.Umamahesh Professor (HAG)	Ph.D.	Water Resources Systems, Hydrologic Modeling, Modeling Impact of Climate Change, Urban Floods	
4	Dr. C.S.R.K.Prasad Professor (HAG)	Ph.D.	Transportation Engg., Travel Demand, Urban & Regional Planning, Land Use Planning, Public Transport, Highway Network Design	
5	Dr. C.B.Kameswara Rao Professor	Ph.D.	Ferrocement, Fiber reinforced concrete, Sustainable Concrete, Torsion of RC members, Rehabilitation and retrofitting of structures, UHSC, Progressive Collapse	

6	Dr. P. Anandraj Professor	Ph.D.	Systems Analysis, Fuzzy Systems, Multi Criteria Decision Making, Hydrology and Fluid Mechanics	
7	Dr. D. Ramaseshu Professor	Ph.D.	New Concretes, Repair & Health Monitoring of Structures	
8	Dr. G. Rajesh Kumar Professor (HAG)	Ph.D.	High Strength Concrete, Prestressed Concrete, Self compacting self curing concrete	
9	Dr. Deva Pratap Professor	Ph.D.	Engineering Geology, Hydrogeology, Remote Sensing, GIS	
10	Dr. M. Chandrasekhar Professor (HAG)	Ph.D.	Water and Wastewater treatment, Air quality modelling, Water quality modelling, Solid waste Managemen	
11	Dr. P. Ratish Kumar Professor	Ph.D.	Sustainable Concrete Making Materials, Earthquake Engineering, Health Monitoring of Structures, Repair and Rehabilitation of structures	

12	Dr. V. Ramanamurthy Professor	Ph.D.	Expansive soils, Reinforced Earth, Utilisation of waste materials	
13	Dr. P. Hari Krishna Professor	Ph.D.	Granular Anchor Piles • Expansive Soils	
14	Dr. M. Heera Lal Professor	Ph.D.	Ground Improvements; Recycled materials; Geo-Environmental	
15	Dr. Venkaiah Chowdary Professor	Ph.D.	Characterization of asphalt binders and mixtures; asphalt pavement analysis, design and evaluation	
16	Dr. Venkata Reddy Professor	Ph.D.	Watershed modelling and management using numerical, soft computing and geospatial methods; Climate change impact studies	
17	Sri. V.N.Kameswara Rao Associate Professor	M.Tech.	Fluid Mechanics and Hydraulic Machines; Hydrologic Systems Modelling; Transport Phenomena of Mass, Momentum, Energy for climate modelling	

18	Sri. M. Sudhakar Associate Professor	M.Tech.	Steel fibre Reinforced Concrete	
19	Dr. P. Hari Prasad Associate Professor	Ph.D.	soil pollutant interaction, Soil stabilization, Contaminant Transport through porous media	
20	Dr.P.Venkateswara Rao Associate Professor	Ph.D.	Water supply, treatment and distribution, wastewater treatment, waste management, low cost water and wastewater treatment	
21	Dr.S.Venkateswara Rao Associate Professor	Ph.D.	Self Compacting concrete; Special concretes and nano materials in concrete and mortar; Repair and Rehabilitation of structures	
22	Dr. Arif Ali Baig Associate Professor	Ph.D.	Geoenvironmental Engineering; Unsaturated Soil Mechanics	
23	Dr. T.P. Tezeswi Associate Professor	Ph.D.	Experimental characterization and development of novel computational modeling methodologies to predict multi-scale behavior of cementitious composite Materials	

24	Dr. S. Shankar Associate Professor	Ph.D.	Low Volume Roads, Pavement Analysis and Design, Pavement Management System, Pavement Material characterization,	
25	Dr. M. Shashi Associate Professor	Ph.D.	Advanced Surveying; Photogrammetry;	
26	Dr. Ajey Kumar Patel Associate Professor	Ph.D.	Computational Fluid Dynamics (CFD); Environmental Fluid Mechanics; Wastewater Engineering	
27	Dr. D. Ravi Prasad Associate Professor	Ph.D.	cement concrete composites, structural health monitoring	
28	Dr. M.V.N. Siva Kumar Associate Professor	Ph.D.	Computational Mechanics;Fracture Mechanics Applications to Metal and Concrete Structures;Finite Element and Reliability Applications to Nuclear Reactor	
29	Dr. K.V.R. Ravi Shankar Associate Professor	Ph.D.	Interactions;Pedestrian behavioral analysis and modeling;Crowd dynamic analysis and emergency evacuation planning	

30	Dr. G. Kalyan Kumar Associate Professor	Ph.D.	Seismic hazard Analysis; Reliability Analysis; Soil Dynamics; Soil Pile Interaction; Laterally loaded piles; Seismic Microzonation;	
31	Dr. K.Gopikrishna Associate Professor	Ph.D.	Multi hazards performance Assessment of structures, Earthquake Engineering, Wavelet Finite Element Methods, Multi-scale Modeling of structures	
32	Dr. Arpan Mehar Associate Professor	Ph.D.	Macroscopic and microscopic traffic analysis, Highway Capacity and level of service, Highway geometric design, Traffic flow simulation	
33	Dr. P. Sridhar Assistant Professor	Ph.D.	Water/wastewater treatment, life cycle analysis, modelling of water/wastewater treatment, Solid waste management,	
34	Dr. G. VenkataRamana Assistant Professor	Ph.D.	Rock Mechanics and Rock Engineering, In-Situ and Laboratory Rock Mechanics Investigations	
35	Dr. S. AnithaPriyadharshani Assistant Professor	Ph.D.	Characterization of materials; Fiber Reinforced Polymer Composites; Stiffened panels; Experimental techniques; Finite Element Analysis	

36	Dr. B. Kavitha Assistant Professor	Ph.D.	Engineering Seismology; Earthquake data analysis; Simulation of ground motions; Probabilistic Seismic Hazard Assessment; Earthquake Forecastin	
37	Dr. Aneetha V. Assistant Professor	Ph.D.	Building Information Modelling, Road Information Modelling, Lean Construction, Virtual Reality in Construction, Construction Project Management	
38	Dr. Chinthala Sumanth Assistant Professor	Ph.D.	Air Pollution; Indoor Air Quality; Sustainable Development, Water and Waste water Mangement; Solid waste Management; Environmental Impact Assessment	
39	Dr. Umesh B. Assistant Professor	Ph.D.	Numerical Methods in Civil Engineering: Finite Difference Method, Finite Element Analysis and Iso-Geometric Analysis	
40	Dr. Shashi Ram Assistant Professor	Ph.D.	Sustainable Building Materials; Energy Efficient Buildings; Sustainable Construction Practices	
41	Dr. Sudheer Kumar Yamsani Assistant Professor	Ph.D.	Geoenvironmental Engineering Soil-Atmosphere Interaction Reinforced soil structures Applied Soil Mechanics	

42	Dr.Litan Kumar Ray Assistant Professor	Ph.D.	Stochastic hydrology, Flood & drought estimation, Real-time flood forecasting, Hydrologic Modelling, Climate change, and climate variability study	
43	Dr.Vema Vamsi Krishna Assistant Professor	Ph.D.	Hydrologic Modelling; Watershed Management; Parameterization of Watershed Models; Agricultural Water Management; Optimal Allocation of Resources	
44	Dr. Vishnu R Assistant Professor	Ph.D.	Pavement Materials, Pavement Management Systems, Pavement Design and Evaluation	
45	Dr.Sanjit Biswas Assistant Professor	Ph.D.	Soil Dynamics; Machine Foundations; Shallow and Deep Foundations; Field and Laboratory Testing; Finite Element Analysis; Continuum Approach Modelling	
46	Dr. R. Ramesh Nayaka Assistant Professor	Ph.D.	Building Information Modelling (BIM); Digital Construction; Sustainable Construction Materials; Construction Work Package	
47	Dr. Manish Pandey Assistant Professor	Ph.D.	Experimental Hydraulics, Sediment Transport, River Training Work	

48	Dr. Raghuram Kadali Assistant Professor	Ph.D.	Pedestrian Cross Flow Modelling, Non-Motorized Safety, Traffic Safety, Driver Behaviour, Traffic flow modeling • Transportation Environment	
49	Dr. Manali Pal Assistant Professor	Ph.D.	Hydrology; Climate Change; Soil Moisture Retrieval using Remote Sensing; Stochastic Modelling; Machine Learning and Artificial Intelligence	
50	Prof. K.V. Jayakumar Emeritus Professor	Ph.D.	Hydrology and Water Resources, Urban Water Management, Irrigation Engineering, Land and Water Management, Environmental Impact Assessment	

Journal Publications

1) Sravanthi Alamandala, R.L.N.Sai Prasad, Rathish Kumar Pancharathi & V.Guru Pratha Reddy, A comparative study of digital image correlation and fiber Bragg grating sensors based on strain measurements, Innovative Infrastructure Solutions, Volume 7, Article number: 167, 2022.
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3) Anish Banerjee , V. Guru Prathap Reddy , Rathish. Kumar Pancharathi , T Tadepalli, "Colour-stability analysis for estimation of deterioration in concrete due to chemical attack", Construction and building Materials, 321(2022), 126288, pp 1-16, Elsevier Publishers
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13) Chandra Sekhar Karadumpa and Rathish Kumar Pancharathi, "Studies on hydration mechanism of composite cement based mortars through microstructure investigation", Journal of Structural Engineering Vol. 48, No. 5, December 2021 - January 2022 pp. 338-354 No. 48-28.
14) Swarna Swetha Kolaventi, Hikmatullah Momand, Tezeswi Tadepalli, M.V.N Siva Kumar, Construction waste process flow modelingConstruction waste process flow modeling: A road map for marketing construction and demolition waste in India, Innovative Infrastructure Solutions (2022) 7:312, Springer Nature, https://doi.org/10.1007/s41062-022-00893-x (IF: 2.85)
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Funded Research Projects

S. No	Title & Name(s) of PI	Total Amount sanctioned (Rs in Lakhs)	Funding agency	Project No.
1	Development of Trip Generation Manual for Indian Cities. Dr. C. S. R. K. Prasad, Raghuram Kadali(Co-PI)	8.14	CSIR-CRRI	
2	Performance Evaluation of Emulsion Treated Base Layers in Low Volume Roads; Scheme: TARE Dr. C. S. R. K. Prasad (Co-PI)	18.30	DST SERB in association with StGITS Kottayam, Kerala	2022-25
3	Impacts of COVID-19 on Travel Behaviour and Its Association with Shared Mobility in Developing Countries Context. Dr. C. S. R. K. Prasad (Co-PI)		Scheme: India Japan Science and Technology Cooperation	Under Process
4	Effective Management of Process Slag from PCB Smelting Dr. P. Ratish Kumar	10	CMET, Hyderabad	2021-22

5	Exploring eco-friendly civil engineering techniques for disposal of plastic waste P. Hari Krishna (PI), T.D. Gunneswara Rao (Co-Investigator), Venkaiah Chowdary (Co-Investigator)	19.72	NHAI New Delhi,	2019-2022 (On-going)
6	Integrated Water Management Model for BIS Countries Under Climate Change Scenarios. Indian P. Coordinator: K. Venkata Reddy	39.0	DST-International Multilateral Regional Cooperation Division	2019 (On-going)
7	Real Time Forecasting Floods Using SWAT Model. Indian PI: K. Venkata Reddy	81.76	MHRD, SPARC Programme	2019(Ongoing)
8	Determining JH2 constants for UHPC using SHPB, Dr.T.P.Tezeswi	17.7	CARS Project-DRDO	June 2022
9	A simple and robust non-contact method for rapid structural health monitoring of critical infrastructure using Digital Image Correlation. Dr. M. Shashi	30.0	MHRD-IMPRINT, (In Progress)	2019-(In Progress)
10	Innovative Development of Sustainable White Clay and Graphene Composite Ventilation Wall Cladding Tiles to Curtail Heat Ingress. PI - Dr. R. Ramesh Nayaka	44.11	Science and Engineering Research Board (SERB), G.O.I	Jan 2021 - Dec 2023
11	Life Cycle Cost Analysis (LCCA) of Steel Fibre Reinforced Concrete Structure by using Building Information Modelling (BIM) Approach. PI - Dr. R. Ramesh Nayaka	5.0	Research Seed Money (RSM) Grant, NIT Warangal, Government of India	Jan 2021 - Dec 2022
12	A study of pedestrian exposure to traffic emissions and consequences to their travel behaviour, PI - Dr. Raghuram Kadali	28.26	Science and Engineering Research Board (SERB-SRG), Government of India	Dec 2021 - Dec 2023

13	Evaluation of Transit Oriented Development (TOD) and Its Association with Travel Behavior and Gentrification Using Big Data Analytics. PI - Dr. Raghuram Kadali,	44.17	Departmentof Science and Technology (DST)- of India-Taiwan S&T Cooperation Programme, Government of India	May 2021 - Apr 2023
14	Evaluation of Traffic Emissions based on varied roadway characteristics. PI -Dr. Raghuram Kadali	5.0	Research Seed Money (RSM) Grant, NIT Warangal, Government of India	Jan 2021 - Dec 2022
15	Development of Global Vertical Soil Moisture Profile Database using SMAP Data. PI - Dr. Manali Pal	19.94	Science and Engineering Research Board (SERB-SRG), Government of India	January 2022 - January 2024
16	Development and Demonstration of Pilot-scale Hybrid Wastewater Treatment System with Hydrodynamic Cavitation and Biosurfactant for Recycling of Textile Effluent Shirish Sonawane(PI), AjeyKumar Patel(CoPI)	41.42	IMPRINT, SERB, New Delhi,	16-12-2019 to 15-12-2022 (Ongoing)

Patents

1) Dr M.Heeralal, Rathish Kumar Pancharathi etal, Innovation Patent on "Smart Rigid Pavement" Patent Number: 2021106229, Grant from 20th August 2021 for a period of Eight Years, Australian Government, IP Australia (**Patent Granted**).
2) Dr A.Suchith Reddy, Prof P.Rathish Kumar, Australian Patent on "A Methodological Framework and System for Achieving Sustainable Building Construction", Patent Number: 2021104847, Grant from 2nd August 2021 for a period of Eight Years, Australian Government, IP Australia.(**Patent Granted**)
3) Dr A.Suchith Reddy, **Rathish Kumar Pancharathi,** Indian Patent on **"**A Method and System for Assessing Sustainability of Civil Infrastructure"(Patent Application 202141054686) Published in Patent Office Journal Filed on 11th February 2022, **Published in Patent Office Journal**

Books and Book Chapters

1) Krishna R Reddy, **Rathish Kumar Pancharathi**, N.Gangdhara Reddy and A.Suchith Reddy,"Advances in Sustainable Materials and Resilient Infrastructure", Springer Transactions in Civil and Environmental Engineering, Springer Publishers, 2022.
2) **Tezeswi Tadepalli** and Vijayabaskar Narayanamurthy, have published a book titled "Recent Advances in Applied Mechanics", Proceedings of Virtual Seminar on Applied Mechanics VSAM 2021, Series title - Lecture Notes in Mechanical Engineering, Feb 2022, SPRINGER, ISBN: 978-981-16-9538-4.

Book Chapters

1. Rathish 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_1_En, (Chapter 8), Springer (Nature) Publishers
2. Roy, N., Chowdary, V., Saravanan, U., and Krishnan, J.M. (2021). "Non-linear modeling of the influence of rest period on healing behavior of asphalt concrete mixtures." Green and Intelligent Technologies for Sustainable and Smart Asphalt Pavements: Proceedings of the 5th International Symposium on Frontiers of Road and Airport Engineering, Delft, The Netherlands, July 12 to 14, 2021, 648-654. (http://doi.org/10.1201/9781003251125-104).
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38. N A G K Manikanta Kopuri, Dr. S. Anitha Priyadharshani, Dr. P. Ravi Prakash (2021), 'Lecture Notes in Civil Engineering', Springer Nature.

Conferences, workshops, FDPs, Webinars organized

	Title	Dates, Month, Year	No. of Participants	Organized by	Coordinators
1	Innovative Teaching Methods on Recent Advances in Concrete and Sustainable Technologies (ReCAST-2020)	1-5, August 2021	50	Department of Civil Engineering	Prof. P. Ratish Kumar, Prof. G. Rajesh Kumar, Dr. S. Venkateswara Rao
2	6-Day GIAN course on Advanced Non-Destructive Testing Methods for Condition Assessment of Materials and Structures	3-18th June 2022	40	Department of Civil Engineering	Prof. P. Ratish Kumar
3	5-Day GIAN Workshop on " Experimental Modal Analysis: Applications in Civil and Mechanical Engineering Systems".	Jan 31-Feb 4, 2022	40	Department of Civil Engineering	Dr. D. Raviprasad, Dr.T.P.Tezeswi
	International virtual Conference on Developments and Applications of Geomatics	29-31 August, 2022	80	Department of Civil Engineering	Dr. M. Shashi, Dr. K. Venkata Reddy, Dr. Manali Pal
4	A Three-Day Executive Development Programme on “New Technology Initiatives in Rural Roads and Use of Marginal Materials”, sponsored by National Rural Infrastructure Development Agency, Ministry of Rural Development, Government of India, New Delhi	February 17 to 19, 2022	40	Department of Civil Engineering	Prof. C.S.R.K. Prasad, Dr. Venkaiah Chowdary, and Dr. S. Shankar.
5	A Three-Day Executive Development Programme on “New Technology Initiatives in Rural Roads and Use of Marginal Materials”, sponsored by National Rural Infrastructure Development Agency, Ministry of Rural	February 24 to 26, 2022	40	Department of Civil Engineering	Prof. C.S.R.K. Prasad, Dr. Venkaiah Chowdary, and Dr. S. Shankar.

	Development, Government of India, New Delhi				
6	A Three-Day Executive Development Programme on "Construction and Quality Control of Flexible and Rigid Pavements", sponsored by National Rural Infrastructure Development Agency, Ministry of Rural Development, Government of India, New Delhi	March 3 to 5, 2022	40	Department of Civil Engineering	Prof. C.S.R.K. Prasad, Dr. Venkaiah Chowdary, and Dr. S. Shankar.
7	A Three-Day Executive Development Programme on "Planning, Design and Construction of PMGSY Roads", sponsored by National Rural Infrastructure Development Agency, Ministry of Rural Development, Government of India, New Delhi	March 24 to 26, 2022	40	Department of Civil Engineering	Prof. C.S.R.K. Prasad, Dr. Venkaiah Chowdary, and Dr. S. Shankar.
8	Effective Teaching and Learning of Geotechnics for Infrastructure Development	October 25th - 30th, 2021		Department of Civil Engineering in association with Teaching Learning Centre (PMMMTLC)	Dr. Arif Ali Baig Moghal
9	5-day Indo-UK webinar on Advanced Design of Deep Foundations for Seismic, Bridge, and Offshore Applications	August 23-27, 2021		HEICO	Dr. Sanjit Biswas, Dr. G Kalyan Kumar, Dr. Sudheer Kumar Yamsani
10	A two day workshop on "Entrepreneurship - How to launch a successful startup"	2nd-3rd October, 2021		Department of Civil Engineering, N.I.T. Warangal in collaboration with Kaarwan	Dr. Shashi

				Eduventures Private Limited	
11	10 days FDP on "Advances in Sustainable Construction Materials and Techniques"	July 18 to July 27, 2022	75	Dept. of Civil Engineering and E&ICT Academy, NIT Warangal in association with BITS Pilani, Hyderabad Campus, Hyderabad	Dr. R. Ramesh Nayaka
12	10 days FDP on Facilitating Digital Transformation in Design, Construction, and Management Processes of Civil Engineering	Feb 21 to March 2, 2022	71	Dept. of Civil Engineering and E&ICT Academy, NIT Warangal	Dr. R. Ramesh Nayaka
13	10 days FDP on Information and Communication Technology for Construction Sector	Feb 17 to Feb 26, 2022	67	Department of Civil Engineering, JSS Academy of Technical Education, Bengaluru & Department of Civil Engineering, NIT Warangal, in association with Electronics & ICT Academy, NIT Warangal	Dr. R. Ramesh Nayaka
14	A five-Day Online Indo-UK webinar on "Advanced Design of Deep Foundations for Seismic, Bridge, and Offshore applications"	23rd-27th Aug. 2021		National Institute of Technology Warangal.	Dr. Sudheer Kumar Yamsani
15	Effective Teaching and learning of Geotechnics for Infrastructural development	25th to 30th October 2021		NIT Warangal	Dr. Hari Krishna P

16	Entrepreneurial Meteorology	22nd-26th March 2022		MHRD sponsored one week GIAN program	Dr. Morgan B. Yarker, Dr.7K. Venkata Reddy
17	Advanced SWAT Model Workshop	February 15-18, 2022	50	MHRD-SPARC Programme	Prof. Raghavan Srinivasan Dr. K.Venkata Reddy, Prof. N.V. Umamahesh, and Prof. Deva Pratap.
18	Understanding the Hydrologic Extremes Under Changing Climate	Feb 07-12, 2022	50	MHRD-SPARC Programme	Dr. Venkata Ramana Sridhar Dr. K.Venkata Reddy, Prof. N.V. Umamahesh and Prof. Deva Pratap
19	Experimental Modal Analysis: Applications in Civil and Mechanical Engineering Systems	Jan 31-Feb 4, 2022		GIAN Workshop	Dr.Tezeswi P. Tadepalli
20	Recent Trends and Future Aspects of Steel Structures	October 25 - 29, 2021		NIT Warangal and SVNIT Surat	S.Anitha Priyadharshani
21	Advancements in Concrete Technology and Construction Management	August 22 - 26, 2022		NIT Warangal	S.Anitha Priyadharshani

Invited talks delivered

1. Dr.Tezeswi Tadepalli, has delivered an online guest lecture at Dept. of Civil Engineering, Osmania University on, "Computational Aspects of Cementitious Materials", as part of ATAL AICTE FIVE DAY Faculty Development Program (online) On "Advanced Concrete Technologies", on Nov 12th, 2021.
2. Dr.Tezeswi Tadepalli, has delivered an online guest lecture at Dept. of Civil Engineering, Osmania University on, "Fracture and Fatigue at Atomistic and Molecular Scales, Testing systems", ATAL AICTE FIVE DAY Faculty Development Program (online) On "Fracture Mechanism of Concrete Structures ", Dept. of Civil Engineering, Osmania University, on Dec 6th, 2021.
3. Dr.Tezeswi Tadepalli, has delivered an online guest lecture at CSIR-SERC Chennai, on "Machine Learning For Structural

Health Monitoring", as part of Applications of Soft Computing Techniques in Structural Engineering, ASCSE 2022, on 24-25, January 2022

4. Dr.Tezeswi Tadepalli, has delivered an online guest lecture at NIT Warangal & BITS Pilani - Hyderabad, on " Waste Management In Indian Construction Industry" 09 Days Virtual Faculty Development Programme (FDP)' on "Advances in Sustainable Construction Materials and Technologies", on 18- 27, July 2022.
5. Dr. Manali Pal, has delivered an online keynote lecture titled as 'Application of Data Driven Models in Soil Moisture Retrieval Studies' for the online Faculty Development Programme (FDP) on "Modern Techniques and Tools in Water Resource Management " in Department of Civil Engineering,National Institute of Technology, Andhra Pradesh, from 1st - 12th August 2022
6. Dr Vishnu R, has delivered an online guest lecture at Visvesvaraya National Institute of Technology (V NIT), Nagpur on "Bitumen Stabilized Base layers" , as a part of training course for NRIDA engineers titled 'Design of Flexible and Rigid Pavements' on 19th Feb, 2022
7. Dr Vishnu R, has delivered an online guest lecture at Indian Institute of Technology (IIT) Indore, on "Need for developing performance based specification for bituminous mixes" , as a part of short term course organised titled 'Advances in Transportation Engineering' on 05th May, 2022
8. Dr Vishnu R, has delivered an online guest lecture at Indian Institute of Technology (IIT) Bhuvaneshwar, on "Emulsion Treated Asphalt Base layers" , as a part of one day workshop organised on 'Cold Mix technology' on 04th Sep, 2022
9. Dr. M. Shashi, has delivered a guest lecture on "Advanced Surveying and Total Station", in Department of Civil Engineering, Vignan Institute of Technology and Science:Deshmukhi.Telangana on 28 - 30 March, 2022
10. Dr. M. Shashi, has delivered a online guest lecture on "Geomatics for Defence", as a part of Next Gen Defence Technologies, in University School of Information and Communication Technology and University School of Engineering, Gautam Buddha University, Delhi on 19 - 21 August, 2021
11. Dr. M. Shashi, has delivered a online guest lecture on "Advanced Surveying Techniques", as a part of faculty development program on Computer Diligence in Civil Engineering & Applications, in Sreenidhi Institute of Science and Technology, Hyderabad, Telangana State, India on 21 - 30 March, 2022
12. Dr. G. Rajesh Kumar, has delivered a lecture on, Design concepts of Deck Slab, Piers & Abutments for Bridges at Training and Development Program on Concepts on Design, Construction and Maintenance of Bridges & Culverts, CTE Division, Engineering Staff College of India (ESCI), Hyderabad, 24 May, 2022
13. Dr. G. Rajesh Kumar, has delivered a online lecture on, Concreting Concrete at One Week FDP on Transforming The Knowledge of The Eruptive Concrete Technologies For Sustainable Habitats To The Civil Engineering Graduates, Marwadi

Education Foundation, Rajkot on 8th April, 2022

14. Dr. G. Rajesh Kumar, has delivered a online lecture on, Laboratory Tests on Cement, and Cement Concrete, A Three-Day Executive Development Programme on CONSTRUCTION AND QUALITY CONTROL OF FLEXIBLE AND RIGID PAVEMENTS, 3rd to 5th March, 2022, Sponsored by NRIDA, Ministry of Rural Development, GoI, New Delhi, Organised by, NATIONAL INSTITUTE OF TECHNOLOGY, WARANGAL, Department of Civil Engineering, Transportation Division
15. Dr. G. Rajesh Kumar, has delivered a online lecture on, CONCRETE FROM GREY TO GREEN, ATAL AICTE - Online Faculty Development Program on "Advanced Concrete Technologies" Department of Civil Engineering, Osmania University College of Engineering, Hyderabad on 9th November, 2021
16. Dr. G. Rajesh Kumar, has delivered a online lecture on, DESIGN OF CROSS DRAINAGE STRUCTURES FOR LOW VOLUME ROADS, A Three-Day Executive Development Program on PLANNING, DESIGN AND CONSTRUCTION OF PMGSY ROADS, Dates: March 24-26, 2022; Venue: Cisco WebEx, Sponsored by NRIDA, Ministry of Rural Development, GOI, New Delhi, Organized by Transportation Division, Department of Civil Engineering, National Institute of Technology Warangal
17. Rathish Kumar Pancharathi, Expert Lecture on " Condition Assessment and Recent Advances in Non-Destructive Assessment of Structures" in the One Week Online GIAN Course on Advanced Non-Destructive Testing Methods for Condition Assessment of Materials and Structures June 13-18, 2022 Organsied by NIT Warangal
18. Rathish Kumar Pancharathi, Expert Lecture on " Non-Destructive Testing for Condition Assessment of Critical InfraStructure" in the One Week Online GIAN Course on Advanced Non-Destructive Testing Methods for Condition Assessment of Materials and Structures June 13-18, 2022 Organsied by NIT Warangal
19. Rathish Kumar Pancharathi, Expert Lecture on " Sustianble Materials and Technologies" at the FDP on Advances in Sustainable Construction Materials and Technologies (18th July – 27th July 2022), Organized by Electronics and ICT Academy, NIT, Warangal in association with BITS Pilani, Hyderabad Campus, Hyderabad
20. Rathish Kumar Pancharathi, Keynote lecture on "Sustainable materials and Life Cycle Assessment of Blended Cements in Indian context", Research Conclave 2021, Organized by the Research and Innovation Council of REVA University 16th - 17th December 2021.
21. Rathish Kumar Pancharathi, Invited Speaker, "Material Characterization 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) organized by Department of Civil Engineering, NIT Silchar, Nov 2021.

22. Rathish Kumar Pancharathi, 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
23. Rathish Kumar Pancharathi, 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.
24. Rathish Kumar Pancharathi, 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.
25. Rathish Kumar Pancharathi, 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, Rehabilitation and Retrofitting Techniques of Reinforced Concrete Structures (Phase-III), on 3rd July 2021, organized by the Department of Civil Engineering, Srinivasa Ramanujam Institute of Technology, Anantapuram.
26. Rathish Kumar Pancharathi, Expert Lecture on Condition Evaluation and Strengthening of Concrete Structures, organised by the Department of Civil Engineering, SRIT under the AICTE Sponsored Online STTP during 31st May 2021- 5th June 2021.
27. Rathish Kumar Pancharathi, Expert Lecture on Selection of Sustainable Materials and Techniques for Repair and Rehabilitation of Concrete Structures organised by the Department of Civil Engineering, SRIT under the AICTE Sponsored Online STTP during 26th April 2021- 1st May 2021.
28. Ravi Shankar KVR, Safety based Planning and Design of Urban Roads, Three Day National Workshop on "Urban Transportation and Infrastructure Planning" Organized by Prasad V. Potluri Siddhartha Institute of Technology, Andhra Pradesh, 05 October, 2021.
29. Ravi Shankar KVR, Travel Time Prediction Modelling Using SVM, One Week Online FDP Program on State of the Art Modeling Techniques in Civil Engineering, Vardhaman College of Engineering, 20 Sep. 2021.
30. Dr. Arif Ali Baig Moghal has Delivered Lecture for a 6 Day Faculty Development Program on "Effective Teaching and Learning of Geotechnics for Infrastructure Development" titled "Effect of Compaction Delay on the Engineering Properties of Plastic and Non-Plastic Fines" through Google Meet Platform on 27 October 2021 (11.15 AM to 12.15 PM IST). Host Institute: NIT Warangal.
31. Dr. Arif Ali Baig Moghal has Delivered Lecture for a 6 Day Faculty Development Program on "Effective Teaching and Learning of Geotechnics for Infrastructure Development" titled "Heavy Metal Retention Behaviour of Lime Blended Semi-Arid Soils" through Google Meet Platform on 26 October 2021 (4.45 PM to 5.30 PM

IST). Host Institute: NIT Warangal.

32. Dr. Arif Ali Baig Moghal has Delivered Theme Lecture for "The Eighth Young Indian Geotechnical Conference 2021 (8IYGEC-2021)" titled "Sorptive and Desorptive Response of Divalent Heavy Metal Ions from EICP treated Plastic Fines'' through Zoom Platform on 21 October 2021 (11.30 AM to 12.00 Noon IST). Host Institute: IIT Madras, Chennai.
33. Dr. Arif Ali Baig Moghal has 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.
34. Dr. Manish Pandey has delivered an Expert lecture on "River Hazards in Coarser Streams, Challenges and Opportunities" 18th February 2022, Webinar on "Hazard Assessment Mechanics Prediction and Countermeasures for Riverine Environment" In collaboration with NIDM Delhi.
35. Dr. Manish Pandey has delivered an Expert lecture on "Water-Related Disasters, Challenges and Opportunities" 25th January 2022, Webinar on "Water System Hazards-Risk Mitigation and Preparedness" In collaboration with NIDM Delhi.
36. Dr. Manish Pandey has delivered an Expert lecture on "River Dynamics, Sediment Transport and River Hazards" 30th December 2021, 3-days training program on "Geospatial Applications for Disaster Management" jointly organized by Manipal University Manipal and NIDM, New Delhi.
37. Dr. Manish Pandey has delivered an Expert lecture on "Sediment and scour process in natural streams" 29th October 2021, 3-days training program on "Fluvial Disasters and Strategies in Risk Reduction" jointly organized by IIT Jammu and NIDM, New Delhi.
38. Dr. Manish Pandey has delivered an Expert lecture on "Scour and sediment hazards" 25th Aug 2021, 3-days training program on "River Dynamics, Flood and Sediment Hazards in Indian Rivers" organized by NITW-NIDM.
39. Dr. Sanjit Biswas has delivered a lecture on Hands-on experience using Abaqus at the 5-day webinar on Advanced Design of Deep Foundations for Seismic, Bridge and Offshore Applications, Warangal, 26th August, 2021, sponsored by HEICO.
40. Dr. Sanjit Biswas has delivered a lecture on Dam stability and hazard at the webinar on Sedimentation and Dam Stability, Delhi, 12th October, 2021, sponsored by NIDM.
41. Dr. Sanjit Biswas has delivered a lecture on FEA of pile foundations subjected to rotating machine induced vibrations at the 6-day online FDP on Effective Teaching and Learning of Geotechnics for Infrastructure Development, Warangal, 28th October, 2021, sponsored by Teaching Learning Centre, NIT Warangal.
42. Dr. Shashi has delivered an Invited lecture 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.

43. Dr. K. V. Jayakumar has delivered an Invited talk on Environmental Flows" during the World Environment Day Celebrations, organised by the Institution of Engineers (I), 5th June 2021.
44. Dr. Venkata Reddy Keesara has delivered "Hydrologic Modelling with QGIS tools Methodology and Applications'', Presentation in 7 Day SERB Sponsored Workshop on Remote Sensing and GIS for Agriculture And Water Resources Management, Organized by Department of Civil Engineering, Indian Institute of Technology Hyderabad Kandi, Sangareddy, 02 July 2022.
45. Dr. Venkata Reddy Keesara has delivered a lecture on "Real Time Flow Simulation in Watershed and Climate Change Impact in the Water Resources of a River Basin", Presentation in DST-SERB Sponsored Five Day Workshop on Hydroclimatological Modelling Tools & Techniques and their Applications, Organized By Department of Civil Engineering National Institute of Technology Andhra Pradesh, 15 June, 2022.
46. Dr. Venkata Reddy Keesara has delivered a lecture on "USE OF AI Based TOOLS in Geospatial applications", Presentation in ONLINE ATAL-FDP on Recent Trends and Applications of GIS & Remote Sensing using AI organized by Potti Sriramulu Chalavadi Mallikharjuna Rao College of Engineering & Technology, Krishna Dt., Andhra Pradesh, 14 September 2021.
47. Dr. K.V.R. Ravi Shankar has delivered a lecture on Resource Person, Safety based Planning and Design of Urban Roads, Three Day National Workshop on "Urban Transportation and Infrastructure Planning" Organized by Prasad V. Potluri Siddhartha Institute of Technology, Andhra Pradesh, 05 October, 2021.
48. Dr. S. Anitha Priyadharshani has delivered a guest lecture on "Fiber Reinforced Concrete" to C M R College of Engineering & Technology, Hyderabad (March 23, 2022).
49. Dr. Sudheer Kumar Yamsani has delivered a talk on "Geopolymerisation of industrial wastes for sustainable ground improvement" at 6-day FDP on "Effective Teaching and Learning of Geotechnics for Infrastructure Development" from 25th-30th Oct. 2021 at NIT Warangal.
50. Dr. Sudheer Kumar Yamsani has delivered a talk on "Geotechnical Centrifugation for Hydraulic and Hydro-mechanical studies in soil systems" at 6-day FDP on "Effective Teaching and Learning of Geotechnics for Infrastructure Development" from 25th-30th Oct. 2021 at NIT Warangal.
51. Dr. Sudheer Kumar Yamsani has delivered a talk on A hands-on session on "Stress analysis using Geostudio " at Indo-UK webinar on "Advanced Design for Deep Foundations for various Applications" from 23rd-27th Aug. 2021 at NIT Warangal.

PhD Research guidance

1. Utsav Vishal (Roll No. 701333) completed his Ph.D. with the title "Influence of moisture damage and hydrated lime on the fatigue life of hot mix asphalt and warm mix asphalt" under the guidance of Dr. Venkaiah Chowdary in December, 2021.
2. Kakara Srikanth (Roll No. 717004) completed his Ph.D. with the title "Influence of roughness induced dynamic loads on fatigue and rutting damages in flexible pavement" under the guidance of Dr. Venkaiah Chowdary in August 2022.
3. Alamandala Sravanthi (Roll No: 716051) completed her PhD with the title "Structural Health Monitoring of Bridge Structures using Fiber Bragg Grating Sensors" under the joint guidance of Dr Rathish Kumar Pancharathi and Dr R.L.N Sai Prasad
4. Ramireddy Sushmitha (Roll No. 717102), Ph.D. thesis titled "Capacity Analysis of Signalized Intersections in Mixed Traffic Conditions" under the supervision of Dr. Ravi Shankar K.V.R. in the month of January, 2022.

Awards, Outreach Activities, Achievements and Distinctions of Faculty members

1. Prof. Shirish H. Sonawane has been selected for faculty secondment for Asian Institute of Technology (AIT) Bangkok. (Draft)
2. Dr. T. Vinay Kumar awarded "SERB INTERNATIONAL RESEARCH EXPERIENCE (SIRE)" FELLOWSHIP AWARD 2022. (Draft)
3. Srikanth Kakara, Chandrasekhar Chintada, and Venkaiah Chowdary received K.F. Antia Memorial Prize from the Institution of Engineers (India) on December 26, 2021 for the paper titled "influence of commercial vehicle characteristics on the magnitude of dynamic wheel loads over asphalt pavement profiles with different roughness" published in the Journal of the Institution of Engineers (India): Series A, Volume 101, 2020.
4. Dr. Venkaiah Chowdary has been inducted as a Member of H-2 Committee on "Flexible Pavement, Airfield and Runways" for the year 2021 to 2023, Indian Roads Congress, New Delhi.
5. Dr. Venkaiah Chowdary has been inducted as a Member of H-5 Committee on "Rural Roads" for the year 2021 to 2023, Indian Roads Congress, New Delhi.
6. Dr. Venkaiah Chowdary has been inducted as a Member of PCD 06 Bitumen, Tar and Related Products Sectional Committee, Petroleum, Coal and Related Products Department (PCD), Bureau of Indian Standards, New Delhi.
7. Dr Rathish Kumar Pancharathi, Selected for the Duo-India Fellowship (NIT Warangal and University of Dundee Scotland) for collaborative research and teaching with Thomas Dyer for year 2021-22.
8. Dr Rathish Kumar Pancharathi has been inducted as Member of the IRC B8 Committee-Management, Maintenance and Rehabilitation Committee of the Indian Roads

Congress(IRC) for Three Years from October 2021.

9. Dr Rathish Kumar Pancharathi, 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.
10. Dr Rathish Kumar Pancharathi has been nominated as a Member of the Building Works Committee (BWC) of the School of Planning and Architecture, Vijayawada since 2021.
11. Dr Rathish Kuamr Pancharathi is nominated as the Member,Evaluation Committee of Japanese Government Monbusho-Mext Research Scholarships and JSPS Post Doc Scholarships for 2021 and 2022.
12. Dr Rathish Kuamr Pancharathi is nominated as the Research Advisory Committee of the National Council of Building Materials(NCCBM) Hyderabad for the year 2021

New Lab Equipments/software/Workstations Installed

i) Structures & Dynamics Laboratory-Shake Table & Vibration of Beams (TEQIP-III)



ii) Concrete Laboratory- Jaw Crusher (SRIC)



iii) Concrete Laboratory-Segregator (SRIC)



Concrete Laboratory-Creep Testing Equipment (Plan Grants)



Structures Laboratory- 100 Ton UTM (TEQIP-III)



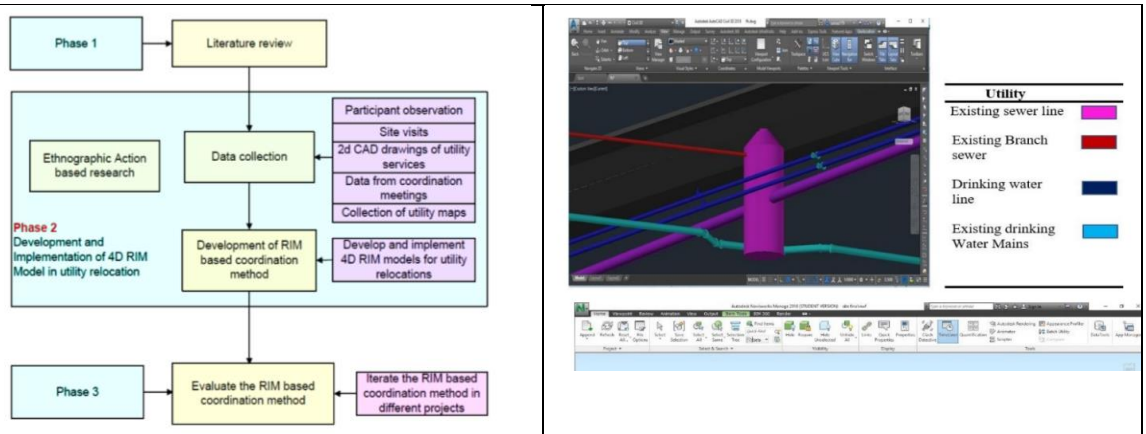
Structures & Dynamics Laboratory- Drop Weight Impact Tester (IMPRINT-2)



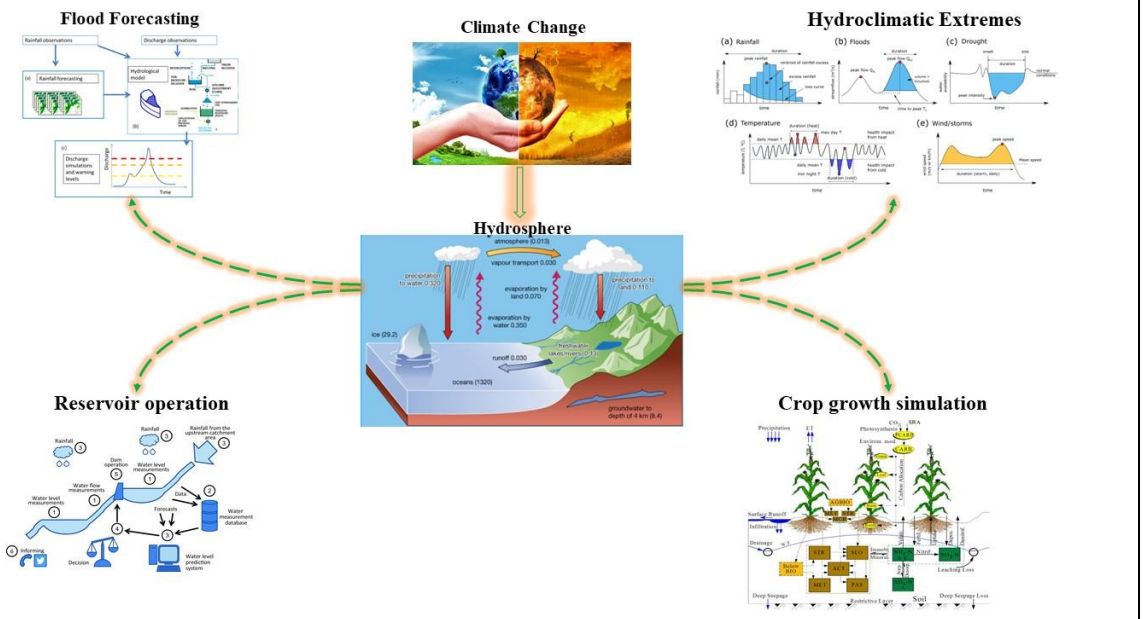
Concrete Mixer (DST)



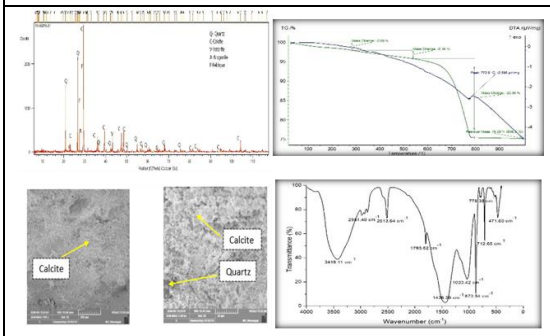
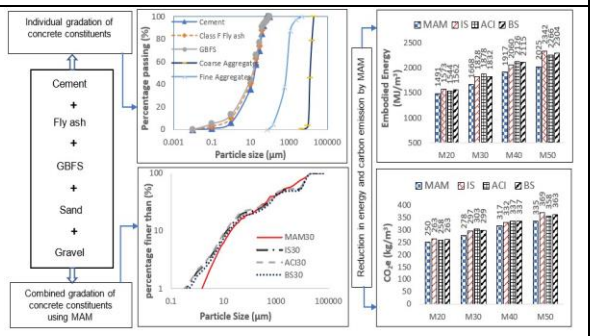
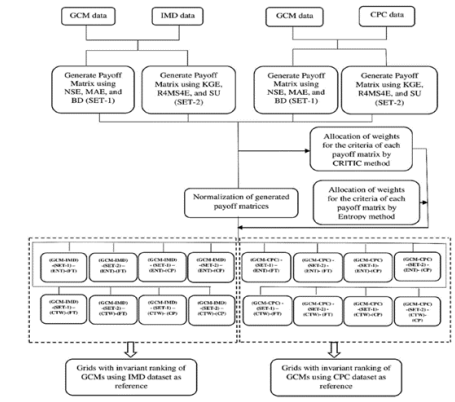
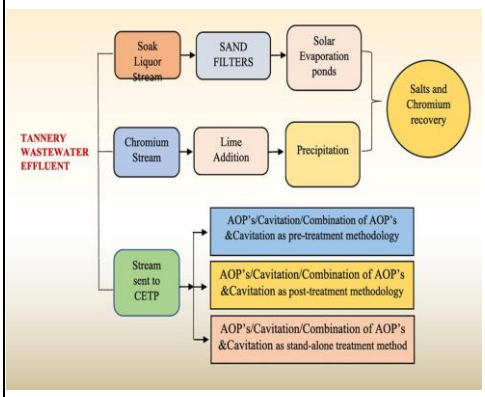
Research Highlights:

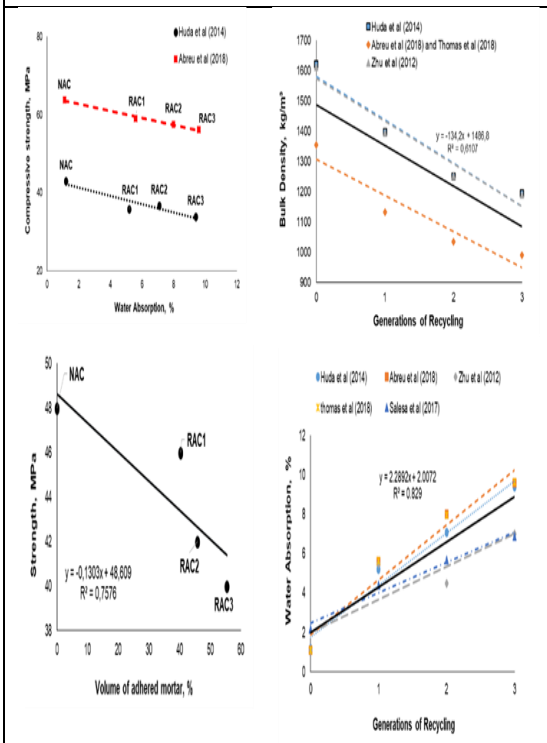
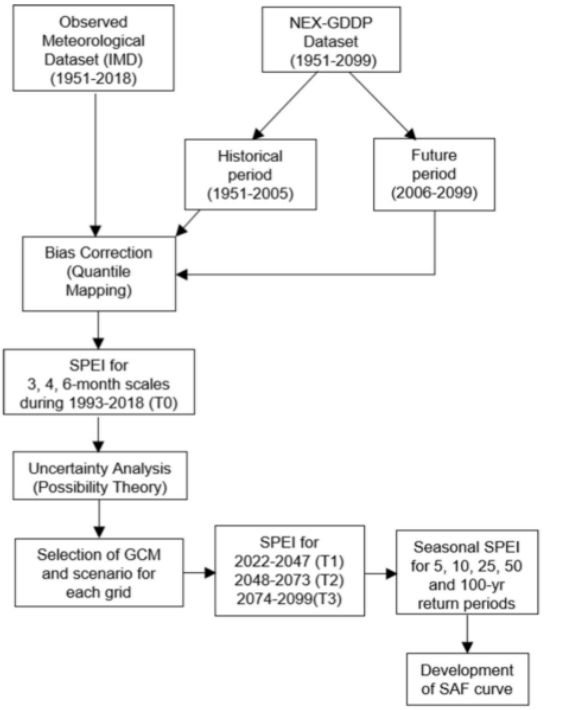


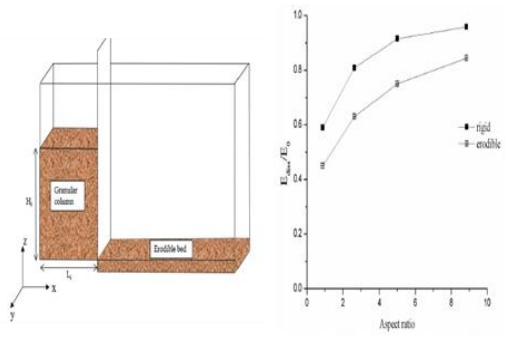
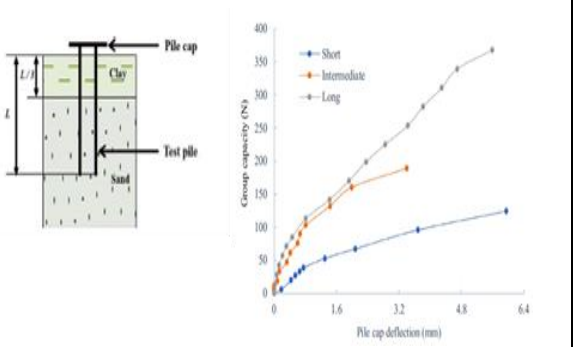
Development of a Road Information Modeling (RIM) Based Coordination Method for Utility Relocations



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 evaluated and ranked by different ranking procedures. Different criteria and methods involved in the ranking procedures are carefully selected to	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.

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.	
	
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 of entrainment. 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 the final run-out lengths in the presence of an erodible bed in the model. Column collapse over erodible bed resulted in thicker final deposits, which is evident from the increased 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.

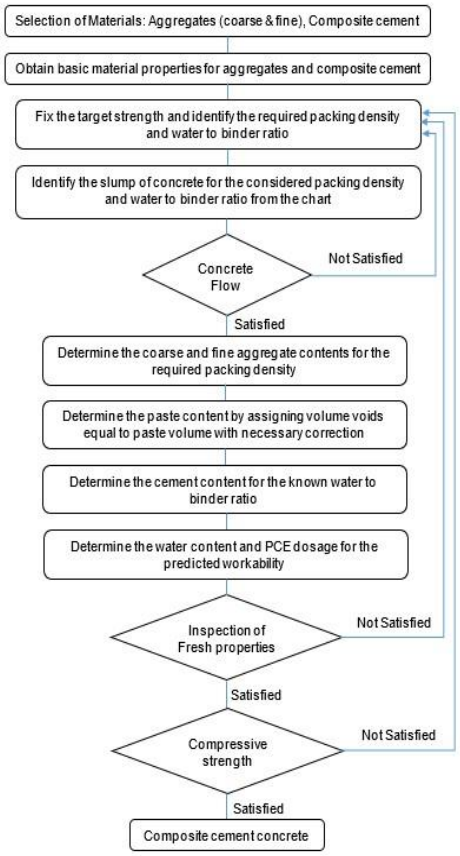
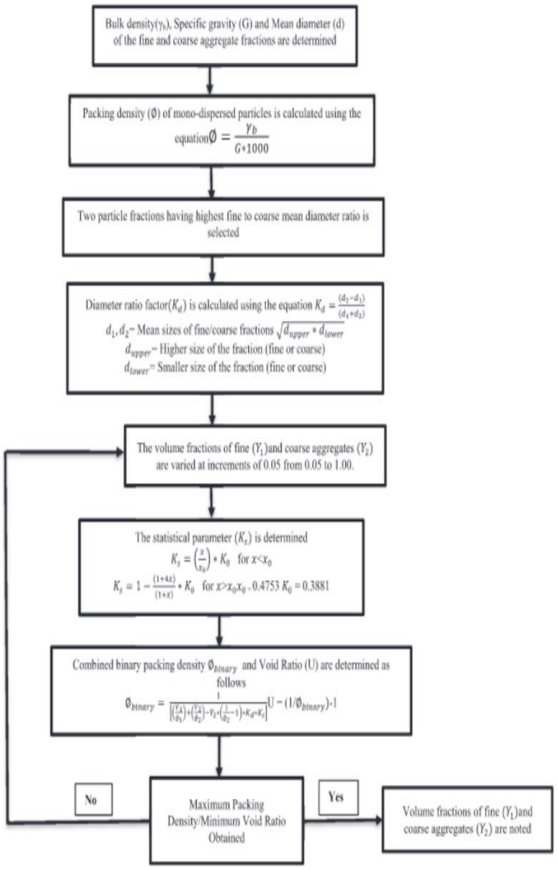


Fig.7 Mix design methodology for composite cement concrete

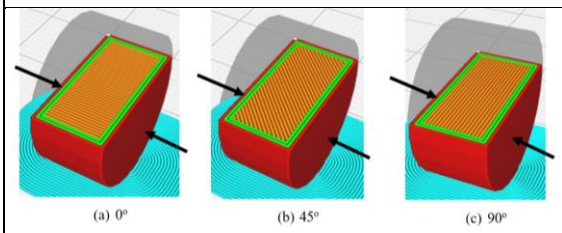


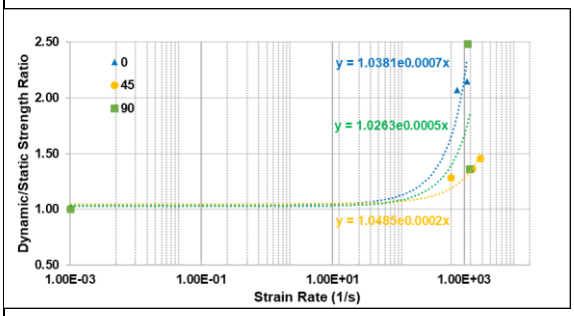
Replacement of SCMs optimised through packing density and compressive strength.

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.

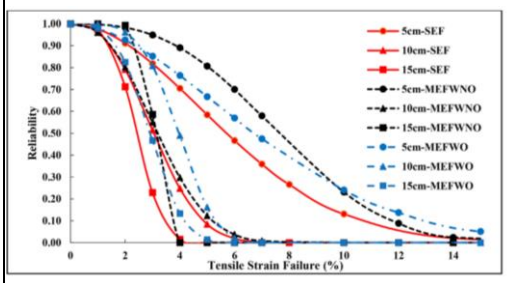
Physico-chemical characteristics of two non-hydraulic lime binders Type-I and Type-II lime fly ash binders were prepared by replacing lime with fly ash from 0 to 30%. In addition, 5% gypsum was added to the binder mix for obtaining quicker setting. Two particle packing theories Modified Toufar Model (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-II lime 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.

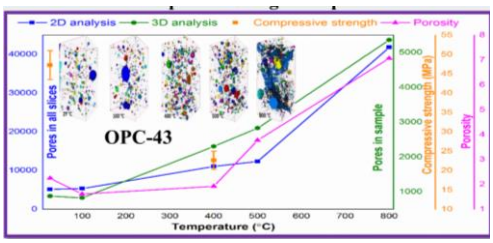


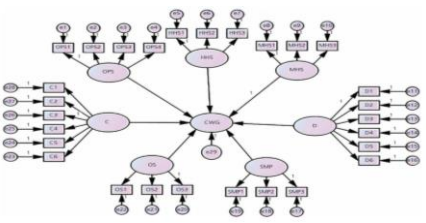


High strain rate response of 3D printed PLA has been characterized for 0°, 45° and 90° print orientations and is found to be significantly brittle compared to the corresponding quasi-static response. The mechanical response of PLA is observed to transition from typical polymer/foam type hardening and 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 multiple extruded 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 as extruded 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.



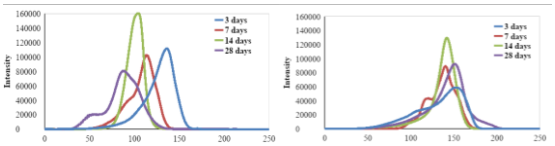
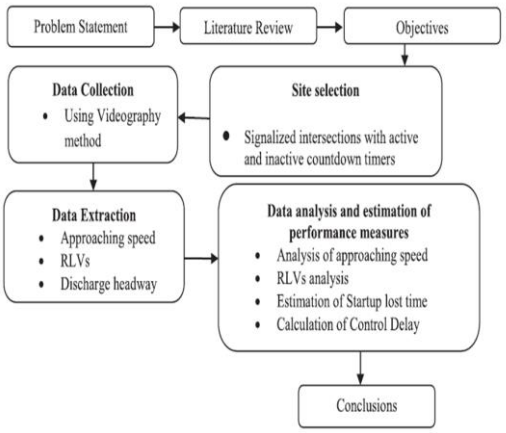
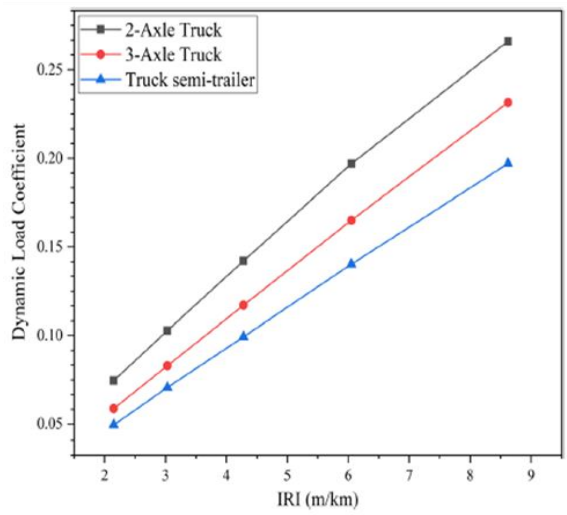
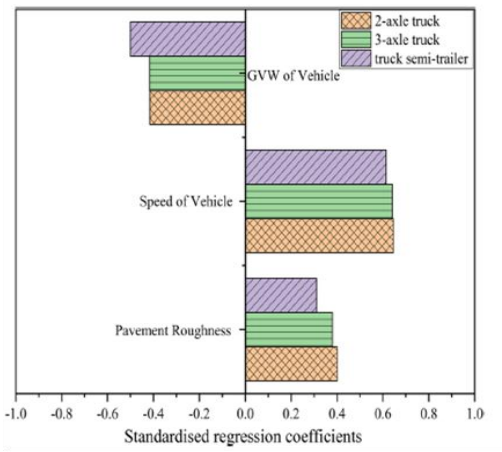


Image-based deterioration assessment of concrete. The present study attempts to quantify deterioration in concrete using digital image processing techniques. Concrete specimens were exposed to deterioration due to acid (HCl, H2SO4) chloride (NaCl) and sulphate (MgSO4) at 5% concentration for a period 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.



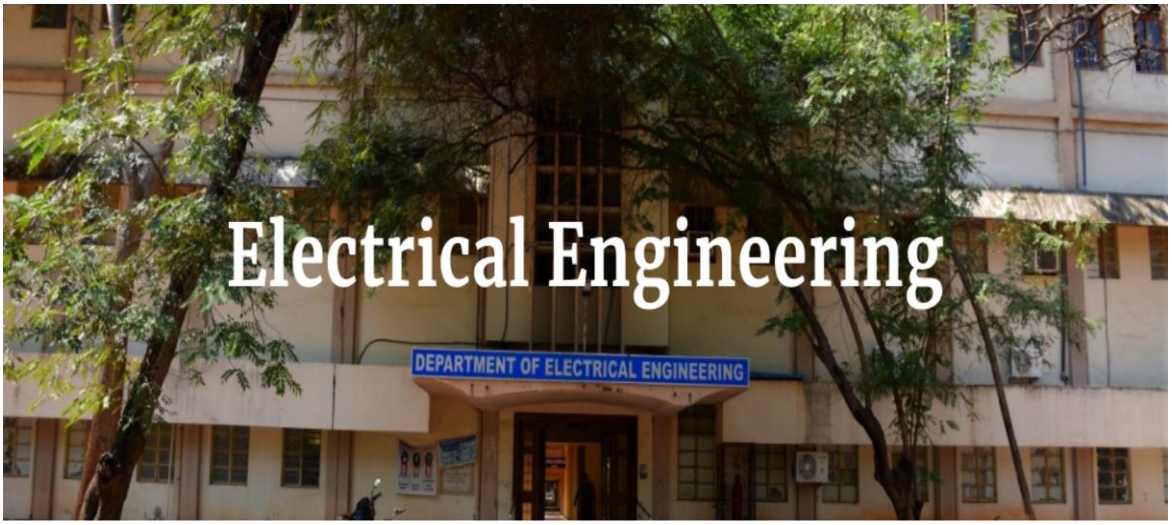


The magnitude of commercial vehicle wheel loads applied on the pavement plays a crucial role in pavement performance. To avoid premature failure in the asphalt pavements, an insight into the factors influencing the magnitude of wheel loads is required. The objective of this study is to evaluate the influence 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, the commercial 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 on the pavement is found to be sensitive to the distribution of payload over the loading platform of the truck. The trucks when loaded to the maximum legal load limit, and only when the load is 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.

DEPARTMENT OF ELECTRICAL ENGINEERING

Brief History of the Department, Academic Programs

The Department of Electrical 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 of Electrical Engineering 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.Tech Electrical Engineering program with specializations in Power Electronics and Drives, Power Systems Engineering and Smart Electric Grid. The department is actively engaged in research and has a number of sponsored R & D projects on hand. The areas of research include 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, Power Quality, EMTP applications in Power Systems, Relay Coordination, Application of Power Electronics to Power Quality Improvement and Industrial Drives, Hybrid Energy Storage Systems, DSP controlled Drives, Simulation of Power Electronic Converters and Drives Systems and Control of Special Machines. The department has MoU's with reputed industries and R & D organizations like Central Power Research Institute (CPRI), Defence Research and Development Organization (DRDO) to carry out the collaborative projects., etc. From the academic year 2021-2022, minor in Electrical engineering courses also introduced in accordance with NEP 2020 Standard. There are two options for departure. One at the end of fourth years for B.Tech. in Electrical Engineering, and the other at the end of the fifth year for B.Tech. honours.



Summary

S. No.	Activity	Number
1	**Publications (Peer Reviewed Journals/ conferences)(SCOPUS/SCI)**	
	International Journals with impact factor	63
	International Conferences	51
2	**Funded Research Projects/SPARC projects (2021-22)**	
	DBT, SERB, DRDO	8
	Ongoing Projects (Rs **4.5** Crores)	11
	Total number of projects ongoing	11
	Total budget	4.5 Crores
3	**PhD Awarded**	8
4	**Book Chapters**	12
	Book Published	01
5	**Patents file**	10

Faculty Details

S. No.	Name of the Faculty and Designation	Highest Qualification and Date of Joining	Research Interests	Photograph
1	Dr. Sailaja Kumari M Professor & HOD	Ph.D	Power Markets, Synchrophasor applications in Power Systems, Power System Optimization, AI applications in Power Systems	

2	Dr. D. M. Vinod Kumar Professor (HAG)	Ph.D		
3	Dr. Siva Sarma D V S S Professor (HAG)	Ph.D	Fault diagnosis of Electrical Equipment, Power Quality, Renewable Energy Integration,	
4	Dr. N. Subrahmanyam Professor	Ph.D		
5	Dr. Bhagwan Krishna Murthy Professor	Ph.D		
6	Dr. Vishwanathan N Professor	Ph.D	Resonant power converters: Induction Heating Applications, Power Converters for LED Drivers, Battery Chargers, High gain Converters.	

7	Dr. Somasekhar V. T. Professor (HAG)	Ph.D		
8	Dr. Srinivasa Rao. S Professor	Ph.D	Renewable Energy Systems; Power Quality; Power Electronic Converters; Induction Motor Drives; Unipolar and Bipolar DC Microgrids, Digital Signal Processor Controlled Drives.	
9	Dr. Srikanth N V Professor	Ph.D	HVDC and FACTS, AI techniques application to power systems and towards smart electric grid. Micro grid modelling control n stability enhancement using advanced machine learning etc.	
10	Dr Chintham Venkaiah Professor	Ph.D		

11	Dr. Narasimharaju B. L Professor	Ph.D	Grid & PV Fed LED Drivers for Lighting Systems; Multilevel Power Converters; Switched Reluctance Motor Drives;	
12	Dr. Porpandiselvi S Associate Professor	Ph.D	PV fed LED drivers, Induction Heating Applications, High frequency Soft-Switched Inverters	
13	Dr. Suresh Babu Perli Associate Professor	Ph.D	Power System Protection, Electric Vehicles, Smart Grid	
14	Dr. A. Kirubakaran Associate Professor	Ph.D	Power Electronics-DC-DC Converters, DC-AC Inverters, Multilevel Inverters, Power Quality and Grid Interface, Renewable Energy and Distributed Generation.	
15	Dr. Bhookya Nagu Associate Professor	Ph.D		

16	Dr. G. Siva Kumar Associate Professor	Ph.D	Power electronics application to the power system, renewable system, and AC microgrid	
17	Dr. D Sreenivasarao Associate Professor	Ph.D		
18	Dr. A. V. Giridhar Associate Professor	Ph.D	High Voltage Engineering, Condition Monitoring & Diagnosis of Power Equipments, Pulsed Power Technology, Nano Dielectrics.	
19	Dr. M Udaya Bhasker Associate Professor	Ph.D	Power Electronics-Bi-directional DC-DC converters, Energy Storage system, Digital Control system	
20	Dr. Srinivasan Pradabane Assistant Professor	Ph.D		

21	Dr. Y. Chandrashekhar 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;	
22	Dr. Ch. Ramulu Assistant Professor	Ph.D		
23	Dr. Vinay Kumar T Assistant Professor	Ph.D	Power Electronics and Drives	
24	Dr. Satish Kumar I Assistant Professor	Ph.D		
25	Dr. Altaf Q H Badar Assistant Professor	Ph.D	Evolutionary Optimization Techniques, Energy Trading, Energy Management	

26	Dr. Swati Devabhaktuni Assistant Professor	Ph.D	Power Electronics-DC-DC Converters, DC-AC Inverters, Grid Interface, induction motor drive, linear induction motor drive, control system	
27	Dr. Palash Mishra Assistant Professor	Ph.D		
28	Dr. Ram Krishan Assistant Professor	Ph.D		
29	Dr. R. Jeyasenthil Assistant Professor	Ph.D		
30	Dr. Deepak R Pullaguram Assistant Professor	Ph.D		

31	Dr. Kanasottu Anil Naik Assistant Professor	Ph.D	Wind energy system grid integration issues; Intelligent control techniques application in power system; DSP techniques application in power system	
32	Dr. Debasmita Panda Assistant Professor	Ph.D		
33	Dr. Mahamad Nabab Alam Assistant Professor	Ph.D	Power system protection; Microgrids; Planning and optimization of networked microgrids;	

Journal Publications

1. Author names, Bold NITW faculty names, and Name, Title of the paper in Times New Roman - 12 font size, Journal name, volume(issue 1-2) (year) start page-end page number. https://doi.org/10.1029/(DOI Link)WR029355 (Publisher) (Impact factor: 7.012) (Please use the same format)
2. Dr Suresh Babu Perli, Ajit Kumar Mohanty "Fuzzy logic based multi-objective approach for optimal allocation of charging stations for electric vehicles" - Elsevier - e-Prime - Advances in Electrical Engineering, Electronics and Energy 2 (2022) 100089 https://doi.org/10.1016/j.prime.2022.100089
3. Dr Suresh Babu Perli, Ajit Kumar Mohanty, "Fuzzy-Based Simultaneous Optimal Placement of Electrical Vehicle Charging Stations, Distributed Generators and DSTATCOM in a Distribution System"-MDPI Journals-Energies- 15, 8702, Nov 2022. https://doi.org/10.3390/en15228702 (SCI)
4. Dr Suresh Babu Perli, Ajit Kumar Mohanty, "Optimal Allocation of Fast Charging Station for Integrated Electric-Transportation System Using Multi-Objective Approach"–MDPI Journals-Sustainability- Renewable Energy

Sources-14, 14731, Nov 2022. https://doi.org/10.3390/su142214731 (SCI)
5. Dr Suresh Babu Perli, et.al "Deep learning approach to solve image retrieval issues associated with IoT sensors"- Journal of Measurement-Sensors ISSN: 2665-9174 Elsevier vol.24, Sep 2022. (Scopus) https://doi.org/10.1016/j.measen.2022.100458
6. Dr Suresh Babu Perli, Ajit Kumar Mohanty,"Multi Objective Optimal Planning of Fast Charging stations and Distributed Generators in a Distribution System." 2021 IEEE 2nd International Conference on Electrical Power and Energy Systems (ICEPES). IEEE, 2021. DOI: 10.1109/ICEPES52894.2021.9699774
7. Dr Suresh Babu Perli, Ajit Kumar Mohanty"Fast Charging Stations for Electric Vehicles by Initial Partitions Demand." Applications of Advanced Computing in Systems. Springer, Singapore, 2021. 37-47. DOI: 10.1007/978-981-33-4862-2_4
8. Dr Suresh Babu Perli, Saptarshi Roy "Optimal Combined-Coordination of Overcurrent and Distance Relays Using Jaya Algorithm." Proceedings of International Conference on Communication and Computational Technologies. Springer, Singapore 2021. DOI: 10.1109/TPWRD.2010.2082574
9. Dr Suresh Babu Perli, Ajit Kumar Mohanty"Optimal placement of electric vehicle charging stations using JAYA algorithm." Recent Advances in Power Systems. Springer,Singapore,2021.259-266https://www.springerprofessional.de/en/optimal-placement-of-electric-vehicle-charging-stations-using-ja/18489372
10. P. Manoj, A. Kirubakaran, Sumon Dhara, V.T. Somasekhar, "A Quasi-Z-Source Based Space Vector Modulated Cascaded Four-Level Inverter for Photovoltaic Applications," IEEE Transactions on Emerging and Selected Topics in Power Electronics, Vol.10, No.4, pp.4749-4762, 2022. DOI: 10.1109/JESTPE.2021.3125695
11. Chinmay Kumar Das, A. Kirubakaran, V.T. Somasekhar, "A Quasi Z-Source Based Five-Level PV Inverter with Leakage Current Reduction," IEEE Transactions on Industry Applications, Vol.58, No.1, pp.400-412, 2022. DOI: 10.1109/TIA.2021.3119526
12. Chinmay Kumar Das, A. Kirubakaran, V.T. Somasekhar, K. Sateesh Kumar, "An Improved Quasi Z-Source Based H5 Inverter with Low Leakage Current for Photovoltaic Applications," International Transactions on Electrical Energy Systems, Wiley, Vol.31, No.12, pp.1-19, 2021. https://doi.org/10.1002/2050-7038.13187
13. L Vankudoth, AQH Badar, Hour Block Based Demand Response for Optimal Energy Trading Profits in Networked Microgrids, Distributed Generation & Alternative Energy Journal, 37(5) (2022), 1549–1576, https://doi.org/10.13052/dgaej2156-3306.37511
14. L Vankudoth, AQH Badar, Comparison of Hour-to-Hour and Hour-Block Energy Trading for Networked Microgrids to Optimize Profits, Distributed Generation & Alternative Energy Journal, 37(4) (2022), 1215–1238, https://doi.org/10.13052/dgaej2156-3306.37413
15. Muleta, N., Badar, A. Q. H., & Mumtaz, N., Moving Towards Self Reliant Microgrids in Indian Scenario, Distributed Generation & Alternative Energy Journal, 37(4) (2022), 1191–1214. https://doi.org/10.13052/dgaej2156-3306.37412

16. Rajeev Kumar Chauhan, Kalpana Chauhan, Altaf Q.H. Badar, Optimization of electrical energy waste in house using smart appliances management System-A case study, Journal of Building Engineering, Volume 46, (2022), 103595, https://doi.org/10.1016/j.jobe.2021.103595
17. N Muleta, AQH Badar, Techno-economic analysis and design of hybrid renewable energy microgrid for rural electrification, Energy Harvesting and Systems, 9 (1), 39-51, 2022, https://doi.org/10.1515/ehs-2021-0013
18. Rayappa David Amar Raj and Kanasottu Anil Naik, "Optimal reconfiguration of PV array based on digital image encryption algorithm: A comprehensive simulation and experimental investigation", Energy Conversion and Management (Elsevier), 262(1), June 2022
19. Rayappa David Amar Raj and Kanasottu Anil Naik, "A Generalized Henon Map-Based Solar PV Array Reconfiguration Technique for Power Augmentation and Mismatch Mitigation," IETE JOURNAL OF RESEARCH (Taylor & Francis), Published online: 31 Mar 2022.
20. Rayappa David Amar Raj and Kanasottu Anil Naik, "An image encryption concept based solar photovoltaic array reconfiguration techniques for mismatch mitigation", ENERGY SOURCES, PART A: RECOVERY, UTILIZATION, AND ENVIRONMENTAL EFFECTS (Taylor & Francis), 44(1), 2022.
21. Kanasottu Anil Naik, "Real-time implementation of interval type-2 fuzzy logic based damping controller for wind integrated power system". Published July 19, 2021, Wind Engineering.
22. B. Salvi, Porpandiselvi. S and N. Vishwanathan, "A Three Switch Resonant Inverter for Multiple Load Induction Heating Applications," in IEEE Transactions on Power Electronics, Vol. 37, No. 10, pp. 12108-12117, Oct 2022
23. Hemasundara Rao Kolla, Neti Vishwanathan, and Bhagwan K. Murthy, "Independently Controllable Dual-Output Half-Bridge Series Resonant Converter for LED Driver Application", in IEEE Journal of Emerging and Selected Topics in Power Electronics, vol. 10, No.2, April 2022.
24. Vaka Srinivas Sandeep Kumar Reddy, Matam Sailaja Kumari. (June-2022) 'Optimal Sizing and Management of Battery Energy Storage Systems in Microgrids for Operating Cost Minimization', Electric Power Components and Systems. Taylor & Francis, 1–14. doi:10.1080/15325008.2022.2061641.
25. Madhu Kishore Devara C, Sailaja Kumari M "Linear tracking sequential hybrid power system state estimator", International Transactions on Electrical Energy Systems, November 2021, https://doi.org/10.1002/2050-7038.13193
26. Madhu Kishore Devara, C, Sailaja Kumari M. "Synchrophasor assisted power system state estimation with a quadratically-decaying exponential criterion", International Transactions on Electrical Energy Systems, August 2021, e13051, https://doi.org/10.1002/2050-7038.13051
27. 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.
28. Sagar Petkar and Vinay Kumar T, "A Simplified Predictive Current Control of Open-End Winding Permanent Magnet Synchronous Motor," IEEE Transactions on Power Electronics, Accepted for Publication, DOI:10.1109/TPEL.2022.3201337.

29. Sagar Petkar and Vinay Kumar T, "A Novel Duty Controlled DTC of a Surface PMSM Drive with Reduced Torque and Flux Ripples," IEEE Transactions on Industrial Electronics, Accepted for Publication, DOI:10.1109/TIE.2022.3181405.
30. Parvathy M L and Vinay Kumar T, "A Multi-Vector based Model Predictive Current Control of PMSM Drive with Enhanced Torque and Flux Response," IEEE Journal of Emerging and Selected Topics in Power Electronics, Accepted for Publication DOI: 10.1109/JESTPE.2022.3180027.
31. Sagar Petkar and Vinay Kumar T, "Enhanced Predictive Current Control of PMSM Drive with Virtual Voltage Space Vectors," IEEE Journal of Emerging and Selected Topics in Industrial Electronics, Vol. 3, Iss. 3, pp. 1834 - 844, Jul. 2022.
32. 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, Vol. 36, Iss. 11, pp. 12968 - 12978, Nov. 2021.
33. M.F. Baba, A. V. Giridhar, B.L. Narasimharaju, "Nonisolated high gain hybrid switched-inductor DC-DC converter with common switch grounding", International Journal of Circuit Theory and Applications, Apr 2022, https://doi.org/10.1002/cta.3295
34. Krishna Kumar Rai, A.V. Giridhar, D.R. Jahagirdhar, Ashish Rai, and Akash Kumar Paul, "Investigation on the Effect of Cable Length on Pulse Shape of High Voltage High Pulse Power Supply", Defence Science Journal, Vol. 72, No. 2, pp. 243-249, 2022, https://doi.org/10.14429/dsj.72.17548
35. Meka Kalyan Chakravarthi, A V Giridhar, Gande Arun Kumar, DVSS Siva Sarma, "A Compact Log Periodic Planar Dipole UHF Array Sensor for Partial Discharge Measurements," IEEE Sensors Journal, Vol.21, No.24, pp.27748-27756, 2021, https://doi.org/10.1109/JSEN.2021.3124418
36. M. N. Alam, S. Chakrabarti, and A. K. Pradhan, "Protection of networked microgrids using relays with multiple setting groups," IEEE Transactions on Industrial Informatics, vol. 18, no. 6, pp. 3713-3723, June 2022. https://doi.org/10.1109/TII.2021.3120151 (Impact Factor: 11.648)
37. N. P. Singh, A. R. Joshi, and M. N. Alam, "Short-Term Forecasting in Smart Electric Grid Protection using N-Beats," Presented in IEEE ICPCCT-2022, held in Raipur in between 3 to 5 March 2022. (Won Best Paper Award)
38. M. N. Alam, "Protection Coordination with Static Security Assessment," Presented in IEEE DELCON-2022, held in Delhi in between 11 to 13 February 2022.
39. P. Kuntal, A. Mathur, and M. N. Alam, "Optimal Power Scheduling of Hybrid Power System," in Proc. IEEE STPEC - 2021, Bilaspur, Chhattisgarh, India, Dec. 16-19, 2021, pp. 1-6.

Funded Research Projects

S. No	Title & Name(s) of PI	Total Amount sanctioned (Rs in Lakhs)	Funding agency	Project No.	Installment received in 2021-2022
1	Blackout Prevention and Quick Service Restoration in Regional and United Indian Power Grid with Protection Reliability Enhancement using Optimal PMU placement- Dr Suresh Babu Perli	24.84	SERB-GoI	EEQ/2018/000128	Closed on 22.02.2022
2	Development of High PF Grid connected Induction Cooker with Direct AC-AC Conversion for Vessels of Different Material, Dr. S. Porpandiselvi, Prof. N. Vishwanathan, Prof. B L Narasimharaju	32.89	SERB, DST, GoI	CRG/2018/004568, Dt. 09.05.2019	4,00,000/-
3	"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. Dr. T. Vinay Kumar	24	SERB, GoI	File No : EEQ/2020/000072, 10-Dec-2020	6,00,000/-

Patents

S. No	Date of Filing	Patent Title	Patent Applicant Name(s)	Patent No.	Department	Patent Nation	Patent Status
1.	11.11.2016	Full-Bridge Soft Switched Driver for LED Based Street Lighting Application	Dr. Neti Vishwanathan,Dr. S. Porpandiselvi,Mr. Kasi Ramakrishnareddy Ch	Application No. 201641038698	Electrical	India	Published on 25.11.2016. Reply to FER submitted on 17/12/2019
2	7.09.2016	Cyclic on-off Control for a Three-Output Inverter for Induction Cooking Application with Independent Control	Dr. Neti Vishwanathan, Mr. Devara Vijaya Bhaskar, Dr. Tanmoy Maity, Dr. S. Porpandiselvi	Application No. 201641030518	Electrical	India	Published on 30.09.2016. Reply to FER submitted on 15/5/2020
3		Model to Enhance Security and to Improve the Fault Tolerance	Dr Suresh Babu Perli		Electrical	India	Publication Number: 26/2022
4		A Web-Enabled Smart Home Gateway for Automatic Device and Network Configuration and Automatic System Updates via IoT.	Dr Suresh Babu Perli		Electrical (home automation)	Australia	Patent number : 2021107349

Books and Book Chapters

1. K Kumar, AQH Badar, S Padmanabhan, have published a book chapter titled "Hybrid Particle Swarm Optimization–Artificial Neural Network Algorithm for Energy Management" in the book titled Artificial Intelligence-Based Energy Management Systems for Smart Microgrids, published by CRC Press, 2022
2. AQH Badar, P Patil, MJ Sanjari, have published a book chapter titled "Introduction and history of virtual

power plants with experimental examples", in the book Scheduling and Operation of Virtual Power Plants, 1-26, 2022, published by Elsevier

3. Ramkrishan, K. Anil Naik and R. David Amar Raj, " Solar tracking technology to harness the green energy", In: Artificial Intelligence for Solar Photovoltaic Systems Approaches, Methodologies, and Technologies, CRC Press Taylor and Francis Group, 2022.
4. Reddy, C.V.S., Devabhaktuni, S. (2022). Low Speed Performance Improvement of Dual VSI Fed Direct Torque Controlled Five Phase Open-End Winding Induction Motor. In: Kumar, S., Singh, B., Singh, A.K. (eds) Recent Advances in Power Electronics and Drives. Lecture Notes in Electrical Engineering, vol 852. Springer, Singapore. https://doi.org/10.1007/978-981-16-9239-0_20

Conferences, workshops, FDPs, Webinars organized

S. No	Title	Dates, Month, Year	No. of Participants	Organized by	Coordinators
1	Innovative Teaching Methods on Recent Advances in Concrete and Sustainable Technologies (ReCAST-2020)	1-5, August 2021	50	Department of Civil Engineering	Prof. P. Ratish Kumar, Prof. G. Rajesh Kumar, Dr. S. Venkateswara Rao
2	Smart Grid Market: Key Trends, Challenges and Opportunities	27th – 31st July 2021	50	Department of Electrical Engineering	Dr. Debasmita Panda and Dr. Altaf Badar
3	Control techniques and Smart solutions in Micro grid	18th - 27th April 2022	52	Department of Electrical Engineering	Dr.Swati Devabhaktuni and Dr. Debasmita Panda
4	FUNDAMENTALS of MATLAB & SIMULINK	29.01.2022	121	Centre for Educational Technology and Department of Electrical Engineering	Dr. T. Vinay Kumar and Dr. D. Sreenivasarao

Invited talks delivered

1. Dr. Altaf Q H Badar delivered an online guest lecture at REC Sonbhadra, Lucknow, UP on "Emerging Optimization Techniques for Optimal Demand Response", on 04th March 2022.
2. Dr. K. Anil Naik Delivered an expert lecture on "Control and Integration of Renewable Energy", FDP held from 18-27 April, 2022 at NIT Warangal.
3. Dr. Swati Devabhaktuni delivered a talk on "MPPT of wind turbine fed WECS" in the FDP on "A three Day

FDP on Recent Developments in Renewable Energy Technologies" organized by Organized by IEEE PES Hyderabd and HYDERABAD INSTITUTE OFTECHNOLOGY & MANAGEMENT, 28th July 2022

4. Dr. M. N. Alam delivered a lecture on "Advanced MATLAB for Scientific Computing", in one-week (13-17 September 2021) AICTE sponsored FDP in University Polytechnic, Aligarh Muslim University, Aligarh.
5. Dr. M. N. Alam delivered a lecture on "Smart Grid Protection" in the FDP on "Control techniques and smart solutions in Microgrid", organized by EED in association with E & ICT Academy, NIT Warangal on 25th April 2022.

PhD Research guidance

1. Chejarla Madhu Kishore(Roll No. 701609) " Investigations on Synchrophasor assisted Power System State Estimation" under the guidance of Prof M Sailaja Kumari in March 2022
2. Mr. Kusuma Eshwar (Roll No. 717118)-" Modified Direct Torque and Predictive Torque Control Methods for Permanent Magnet Synchronous Motor Drive," under the guidance of Dr.T. Vinay Kumar, November 2021.

Awards, Outreach Activities, Achievements and Distinctions of Faculty members

1. **Dr. T. Vinay Kumar** awarded "SERB INTERNATIONAL RESEARCH EXPERIENCE (SIRE)" FELLOWSHIP AWARD 2022.

Best student papers and other achievements

S.No	Name	Achievement Details	Date
1	Dr. M. N. Alam	N. P. Singh, A. R. Joshi, and M. N. Alam, "Short-Term Forecasting in Smart Electric Grid Protection using N-Beats," Presented in IEEE ICPCCT-2022, held in Raipur in between 3 to 5 March 2022. (Won Best Paper Award)	05-03-2022

Research Appreciations/Recognition

1. Dr. M. N. Alam is listed among the Top 2% Scientists Across the World by Stanford University in 2021 and 2022.

Guest Lectures by Foreign Experts

1. Dr. Jahangir Hossain, Associate Professor, University of Technology Sydney, Australia was involved in conducting the GIAN course online along with Dr. Altaf Badar, 7-18 February 2022.
2. Dr. Herbert Falk, Managing Director, OTB Consulting Services LLC, United States delivered an online lecture on "IEC61850" for the students of BTech Final Year and MTech, 29th March 2022. He has authored multiple books on the topic and is actively involved in the development of the protocol. IEC 61850 is a part of syllabus in the subject of Real Time Control of Power Systems being taught by Dr. Altaf Badar

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 goodresearch 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. V. Suresh Babu, Professor & HOD	PhD	Mechanism, Dynamics, Vibrations, Composite Material, Fault Diagnosis	
2	*Dr. RV Chalam, Prof. Emeritus	PhD		
3	Dr. K. Madhumurthy, Professor	PhD	Thermal Engineering; IC Engines; Biofuels; Entrepreneurship; Industrial and Small Enterprise Management	
4	Dr. C. Surya Prakasa Rao, Professor	PhD	Manufacturing	
5	Dr. L. Krishnanand, Professor	PhD	Industrial Engineering ; CAD/CAM ; Supply Chain Management ; Additive Manufacturing	
6	Dr. S. Srinivasa Rao, Professor	PhD	Two-phase flow, I.C. Engines, Experimental Heat Transfer, Solar Energy	

7	Dr. A. Neelakantes wara Rao, Professor	PhD	Operations Management, Supply Chain Management, Theory of Constraints, Quality Engineering and Management	
8	Dr. P. Bangaru Babu, Professor	PhD	Mechanical Vibrations; Vibration Control; Finite Element Analysis; Mechanism Science; Engineering Design, Rotor Dynamics, Vehicle Dynamics.	
9	Dr. A. Venugopal, Professor	PhD	Conventional and Unconventional Machining, Coatings for High Speed Machining, Rapid Prototyping, Metrology	
10	Dr. N. Selvaraj, Professor	PhD	Modelling and Simulation, Flexible Manufacturing System, CNC Technology, Machine tools, Pull Systems and Composite Materials.	
11	Dr. K. V. Sai Srinadh, Professor	PhD	Mechanical behaviour of materials, Manufacturing process	
12	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.	
13	Dr. G. Amba Prasada Rao, Professor	PhD	IC Engines; Engine Exhaust emission control; Alternate fuels; HCCI, Combustion	

14	Dr. R. Narasihma Rao, Professor	PhD	Tribology, Kinematics & Dynamics of Machinery, Machine Design, Finite Element Methods, Advanced Light Weight Composites	
15	Dr. Adepu Kumar, Professor	PhD	Friction stir welding/Processing, Additive Manufacturing, Electrical Discharge Machining, Fabrication and characterization of Micro/Nano composites	
16	Sri. G. R. K. Gupta, Associate Professor	M.Tech	CFD, Turbo-machines, Jet propulsion	
17	Sri. I. A. K. Reddy, Associate Professor	M.Tech	Elements of Mechanical Engineering	
18	Dr. A. Veeresh Babu, Professor	PhD	IC Engines, Alternate Fuels, Emissions control, Fuel cell, Refrigeration and Air-conditioning	
19	Dr. Y. Ravi Kumar, Professor	PhD	CAD/CAM/CIM, rapid prototyping, additive manufacturing, 3D printing, Bio-CAD, Bio-printing	

20	Dr. M. Joseph Davidson, Professor	PhD	Metal Forming, CAD/CAM, Statistical Modeling	
21	Dr. P. Subash Chandra Bose, Professor	PhD	Machining of high temperature alloys, CNC technologies, Optimization techniques, composite materials	
22	Dr. V. Vasu, Professor	PhD	Nano-materials, Nano-fluids, Nano-composites, Material testing Sustainable manufacturing, Metal cutting, Micro-Nano Machining Mechatronics & Systems Controls	
23	Dr. G. Naga Srinivasulu, Professor	PhD	I.C. Engines; Heat Transfer and Turbo machines	
24	Dr. P. Vamsi Krishna, Professor	PhD	Sustainable Manufacturing; Application of solid lubricants in machining; Application of nano-materials in machining.	
25	Dr. K. Kiran Kumar, Professor	PhD	Thermal Engineering; Heat Transfer; Nano-fluids; Refrigeration & Air-Conditioning; CFD; Non-Conventional Energy sources.	

26	Dr. V. Rajesh Khnana Raju, Professor	PhD	Fluid Dynamics, Heat Transfer, CFD, Combustion, Microfluidics	
27	Dr. Srikanth Korla, Professor	PhD	Piezoelectric Energy Harvesting, Structural Health Monitoring, Product Design and Development	
28	Dr. Hari Kumar Voruganti, Professor	PhD	Geometric Modeling for CAD, Finite Element / Iso-geometric Analysis, Robotics and Applied Optimization.	
29	Dr. D. Jaya Krishna, Professor	PhD	Utilization of Solar energy, CFD, Latent heat storage materials, Aerodynamics of cricket ball, Heat line visualization, heat transfer in porous media	
30	Dr. B. Satish Ben, Professor	PhD	Structural Health Monitoring, Tool Condition Monitoring, Nano Composites	
31	Dr. V. P. Chandra Mohan, 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	

32	Dr. T. Sadasiva Rao, Associate Professor	PhD	Manufacturing Engg. & Foundry Technology	
33	Dr. Syed Ismail, Associate Professor	PhD	Surface Texturing; Lubrication;	
34	Dr. Karthik Balasubramanian, Associate Professor	PhD	Microchannel Flow Boiling; Phase Change Heat Transfer; Microfluidics; Thermal management; Solar Thermal; Solar PV and Hybrid systems; HVAC systems.	
35	Dr. G. Raghavendra, Assistant Professor	PhD	Composites, Nano materials, Tribology, Polymer Composites.	
36	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.	
37	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.	

38	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.	
39	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	
40	Dr. Hari Krishna Chilukoti, Assistant Professor	PhD	Nanoscale Heat and Mass Transfer; Molecular Dynamics	
41	Dr. Anant kumar Rai, Assistant Professor	PhD	Fluid mechanics, Hydraulic turbines, Turbomachinery, Hydropower, Renewable Energy, Material wear testing, Sediment Transport	
42	Dr. Shivraman, Assistant Professor	PhD	Welding, wear, corrosion and welding metallurgy	
43	Dr. Manjaiah M, Assistant Professor	PhD	Advanced manufacturing, shape memory alloys, additive manufacturing, surface engineering	

44	Dr. Gaurav Kumar Sharma, Assistant Professor	PhD	Computer aided design, digital manufacturing, product design	
45	Dr. Satyanand Abraham, Assistant Professor	PhD	Thermal Management Of Electronic Package, Gas Turbines and vehicle Battery, Waste Heat Recovery, Surface Wettability	
46	Dr. Gangadharudu Talla, Assistant Professor	PhD	Non- traditional machining, metal cutting, surface engineering, micro machining	
47	Dr. Thamarai Selvan, Assistant Professor	PhD	Computational solid mechanics, contact mechanics, FEM, FGM, layer substrate systems	
48	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	
49	Dr. Chinige Sampath Kumar, Assistant Professor	PhD	Liquid metal cooling, jet impingement, porous media , lattice Boltzmann method	

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Vishnuvardhan Reddy Mugi, Mulatu C. Gilago, and V.P. Chandramohan, "Performance studies on indirect forced convection solar dryer without and with thermal energy storage during drying muskmelon slices", Proceedings of the 1st International Conference in Fluid Thermal and Energy Systems, ICFTES2022, June 9-11, 2022, NIT Calicut, Kerala, India
Vishnuvardhan Reddy Mugi, Mulatu C. Gilago, Chandramohan V.P, "Experimental evaluation of natural convection indirect solar dryer with and without thermal energy storage while drying guava slices", 8th International

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Jyothirmay Bhattacharjya, Meenakshi Devi Parre, and P Vamsi Krishna, Leaf Vein Structure in Additively Manufactured Aluminium Components for Stiffness, 8th International & 29th All India Manufacturing Technology, Design and Research Conference (AIMTDR-2021), PSGCT & PSGITAR, Coimbatore, 09th-11th December, 2021.
Jyothirmay Bhattacharjya, Meenakshi Devi Parre, and P Vamsi Krishna, Stiffness Improvement Using Leaf Vein Structure in Additively Manufactured Components, International Conference on Progressive Research in Industrial & Mechanical Engineering-2021 (PRIME 2021), National Institute of Technology, Jalandhar, 5th-7th August, 2021.
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Shrivastava, N., Mali, C., and Rai, A. K. (2021) "Numerical simulation of cavitation in Pelton turbine injector" In Proceedings of 2nd IAHR YOUNG professionals congress 30 November-2 December 2021 at Madrid, Spain.
Shrivastava, N., and Rai, A. K. (2022) "Effects of Pelton turbine needle eccentricity on jet quality" International Conference on Hydro and Renewable Energy- Net Zero Carbon Energy Systems 17-18 October 2022 at Roorkee, India.
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Khirod Kumar, and P.Vamsi Krishna, Surface integrity and chip morphology in Ti-6Al-4V machining under CO2 cooling with Vortex Tube, International Journal of Surface Science and Engineering, 2022

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Avinash Borgaonkar, Ismail Syed, Tribological Behavior Prediction of Composite MoS2-TiO2 Coating Using Taguchi Coupled Artificial Neural Network Approach, IMechE Part C: Journal of Mechanical Engineering Science, DOI: 10.1177/09544062211065995
K Nagendra Prasad, Syed Ismail, Machining performance of protruded textured high-speed steel cutting tool under dry turning operation, Materials Today Proceedings, ISSN 2214-7853
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mechanical, in vitro corrosion and bioactivity aspects, Journal of Materials Research and Technology, Accepted, 2022
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Suresh Periyannan, K Balasubramaniyam, Ultrasonic Sensor Developments for Monitoring the Temperature in the Long Region of Interest, Advances in Non Destructive Evaluation, 391-399, 2022
Puvvada Santosh Manikanta, S R Shravan Kumar and G. Amba Prasad Rao Effects of Degree of Hybridization and Vehicle Driving Cycle on the Performance of Fuel Cell-Battery Hybrid Electric Vehicle International Research Journal of Engineering and Technology (IRJET) 09 Issue: 10, Oct 2022
Soumya Ranjan Dash,SR Shravan Kumar and G. Amba Prasad Rao Performance and Emission Prediction of Hybrid Electric Vehicle Using Software Tools-ADVISOR and Artificial Neural Networks International Research Journal of Engineering and Technology (IRJET) 09 Issue: 10, Oct 2022
Madaka Ramu, SR Shravan Kumar and G. Amba Prasad Rao Review of battery thermal management for electric vehicles in Indian regions World Journal of Advanced Engineering Technology and Sciences. 2022, 07(02), 113-129

Funded Research Projects

S. No	Project title	Sanctioned Amount	Sanctioned Agency
1	Adepu Kumar and K.V. Sai Srinadh, Effect of tool geometry and cryogenic treatment on mechanical properties of friction stir welded AA2014	19.33 Lakhs	ARDB
2	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

3	B Satish Ben, Development of FRP Composites with Crack Arrest and Self-Healing to Maintain Structural Integrity	30.06 Lakhs	DST-SERB
4	G.Naga Srinivasulu (PI), S.Srinivasa Rao and V.Vasu, Experimental Investigations on different Geometrical shapes of Passive Direct Methanol Fuel cell stacks for Low Power Applications	43.24 Lakhs	SPARC
5	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
6	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
7	Gudipadu Venkatesh, Manufacturing of Advanced materials using microwave hybrid heating technique	10.00 Lakhs	MHRD-NITW
8	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
9	P. Vamsi Krishna (PI), Vibration Assisted Turning for Improving Fatigue Life of Ti6Al4V Aerospace Components	28.6 Lakhs	DST-AMT
10	R Narasimha Rao, Syed Ismail, Insight Development on Tribological Response of Hybrid Aluminum Based Nanocomposites for Transportation sector	40.52 Lakhs	SPARC
11	Srikanth K., Uday Bhasker M., Modelling and Simulation of Energy Harvesting using Piezoelectic Materials and Supercapacitors	6.75 Lakhs	RCI - DRDO
12	Suresh Periyannan, Ultrasonic Sensors Design and Development for Industrial Application	5.0 Lakhs	MHRD-NITW
13	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
14	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
15	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	

16	V.K Manupati, Artificial Intelligence, Machine Learning and Deep Learning applications in Production and Manufacturing systems	9.0 Lakhs	DST-ICPS
17	Dr. Adepu Kumar/ Dr. Shivraman, Characterization of WAAM Additive Manufacture Component for Electronic Packaging	24.12 Lakhs	DRDL
18	Dr. P. Subhash Chandra Bose / Dr K. Madhumurthy / Dr. C. S. P. Rao/ Dr. N. Selvaraj, Laser Assisted Machining of Ceramic, Ceramic Composites and process Optimization	45.99 Lakhs	DRDO-ARMREB
19	Dr. Y. Ravi Kumar / Dr. S. Srinath / Dr.K.Raghu, Development of 3d printable composite thermal shields using photocure short fibre nano hybrid resins through reactive additive manufacturing process	30.90 Lakhs	SERB
20	Dr.P. Vamsi Krishna and Dr.G. Venkatesh, Performance enhancement of orthopaedic implants with Rotary Ultrasonic Assisted Abrasive Flow Machining (R-UAAFF)	33.63 Lakhs	SERB - CRG
21	Anant kumar Rai, Enhancing Performance Characteristics of a Centrifugal Pump in Erosive Conditions	26.07 Lakhs	SERB, DST, GOI

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

a. Filed

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

Suresh Periyannan and K. Balasubramaniam, Ultrasonic waveguide technique for distributed sensing and measurements of physical and chemical properties of surrounding media

Suresh Periyannan, K. Balasubramaniam, Integrated Thermocouple Waveguide Sensor System and Method - To Measure Physical Properties of Waveguide Material And Surroundings

Katakam Vishnu Sree Shanthanu and Devanuri Jaya Krishna, A modified refrigeration system for biomedical storage

Sushyanth Sridhar, Devanuri Jaya Krishna and, Patri Sreehari Rao, A solar powered cooling chamber for storing farm produce

Prasanth A. Lam, Vijaya Hanamant Bichakar, Ratul Maity, Mukesh Muthamilan, Hrushikesh C. Prabhu, SHELF ASSEMBLY FOR AN APPLIANCE

A. Manmadhachary, Aditya Mohan Alwala, V. Giridhar Kumar, Y. Ravi Kumar, Implantable Device for Temporomandibular Joint and Method of Production Thereof

Books and Book Chapters

Shrivastava, N., and Rai, A. K. (2022) "Assessment of sediment hazard and associated measurement", Accepted in Book titled "River Dynamics and Flood Hazards: Studies on Risk and Mitigation" published by Springer Nature http://dx.doi.org/10.1007/978-981-19-7100-6

Conferences, workshops, FDPs, Webinars organized

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)

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.

Dr S. Srinivasa Rao, Dr G. Amba Prasad Rao and Dr. V R K Raju, COMBUSTION ANALYSIS AND MODERN TRENDS IN I C ENGINES (virtual event), during 7 - 11 February, 2022, organized by Mechanical engineering department (MED), at NIT warangal

Dr Hari Kumar Voruganti, International Conference on Robotics, Control and Computer Vision (ICRCCV-2022) , during February 19-20, 2022 at NIT Uttarakhand

Prof. V. Vasu and IEOM Team NIT Warangal, Industrial Engineering and Operations Management, (IEOM India - 2022), during 16 - 18 August, 2022, organised by MED, NIT Warangal

Dr. Manjaiah M and Prof. Y Ravi Kumar, 3D Printing and Design, during July 18-24-2022, organised by MED, NIT Warangal and DST-SERB

Dr. Manjaiah M and Prof. Y Ravi Kumar, 3D printing in Medical Applications, during July 25-31 2022, organised by MED, NIT Warangal and DST-SERB

Prof. V Vasu and Prof. L Krishanand, Industry 4.0 & Smart Manufacturing furing, during Feb 19-26 2022, organised by MED and E&ICT, NIT Warangal

Dr. M Manjaiah, Dr. Gangadharudu Talla and Prof. A Kumar, Teaching and Learning of Advances in Manufacturing Technologies, during Nov 30 – Dec 04, 2021, organised by MED and E&ICT, NIT Warangal

Prof. Y. Ravi Kumar, Advanced Medical Applications of 3D Printing, during December 14-18, 2021, organised by AICTE ATAL & NIT Warangal

Prof. Y. Ravi Kumar, Advanced Medical Applications of 3D Printing, during December 06-10, 2021, organised by AICTE ATAL & NIT Warangal

Dr.V Vasu and Dr. Shivraman, Mechatronics & MEMS, during December 14-18, 2021, organised by AICTE ATAL

Guest Talks/webinars delivered

Dr. P Vamsi Krishna delivered an expert lecture on Hybrid Metal Matrix Composites at RIT, Kolhapur, Maharashtra

Dr. P Vamsi Krishna delivered an expert lecture on Vibration Assisted machining Process at Pengasinan State University, Philippines

Dr. P Vamsi Krishna delivered an expert lecture on Ultrasonic-assisted magneto abrasive finishing at Gudlavalleru Engineering college, Gudlavalleru , A.P

Dr.Gaurav Kumar Sharma delivered an expert lecture on Digital Manufacturing: Robotic Simulation at Indian Institute of Science, Bangalore

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

Dr. Syed Ismail received best paper award for the papers presented in the International Conference on Smart Materials and Structures, VVIT Guntur 2022

PhD Research guidance

Chadalawada Sri Chaitanya, completed his Phd with title "Mechanical and Tribological Performance of Cenosphere based Syntactic Foams" under the guidance of Dr. 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 Dr. R. N. Rao

Lokesh Kalapala, completed his Phd with title "Experimental and numerical investigations of design parameters of a shell and tube latent heat storage unit" under the guidance of Dr. D Jaya Krishna

V V M J Satish Chembuly, 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

Muralikrishna Boni, completed his Phd with title "Experimental Investigations on passive direct methanol fuel cell integrated with liquid electrolyte layer" under the guidance of Dr. S Srinivasa Rao and Dr. G. Naga Srinivasulu

G.Arun Manohar, completed his Phd with title "Design, Development and Fabrication of a High Redundancey Linear Electromechanical Actuator for Fault Tolerance" under the guidance of Dr. V. Vasu and Dr. K. Srikanth

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

Syam Kumar Chokka, completed his PhD with title "Optimization of process parameters for adhesive bonded joints and Rehabilitation of structures using adhesive bonding" under the guidance of Dr. B. Satish Ben and Dr. K. V. Sai Sreenath

Borgaonkar Avinash Vitthal, completed his PhD with title "Insight Development on Tribological Characteristics of Molybdenum Disulphide-Titanium dioxide as soft composite coating material for machining applications" under the guidance of Dr. Syed Ismail

Venkata Siva Reddy D, completed his Phd with title "Parametric influence on surface integrity of Ti6AI4V alloy in Ultrasonic Vibration Assisted Turning" under the guidance of Dr. A. Venu Gopal and Dr. P. Vamsi Krishna

KOYILADA BANARJI, completed his Phd with title "Processing and Characterization of Directed Energy Deposition Based Additive Manufactured

SS 316 and its Composites" under the guidance of Dr. Y Ravi Kumar

Kattela Siva Prasad, completed his Phd with title "Parametric optimization of a DI-CI engine fuelled with butanol/diesel blends for improved performance and emission characteristics" under the guidance of Dr. V. R. K. Raju and Dr. S. Srinivasa Rao

Brundaban Patro, completed his Phd with title "Heat Transfer and Pressure Drop Studies of Gas-Solid Flow in Adiabatic pipes using a Variable Gas Property Two-Fluid Model" under the guidance of Dr. K. Kiran Kumar and Dr. D Jaya Krishna

T Saratchandra Babu, completed his Ph.D with title "Process development and characterization of wire arc additive manufactured components" under the guidance of Dr. J. Davidson

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.

Details of students joined in higher educational institutes/companies

S. NO	Students Name	Roll No.	Course	Placement details	Job Profile
1	Gaurang Agrawal	183125	B Tech	Collins Aerospace	Advanced Tech and Data Analytics
2	Rohit Chandrahas	183163	B Tech	Collins Aerospace	Advanced Tech and Data Analytics
3	Bolelu Ulhas Vilas	203605	M Tech	VOLVO	After Market
4	Puvvada Santosh Manikanta	203713	M Tech	VOLVO	After Market
5	Adarsh Sharma	203651	M Tech	VOLVO	After Market
6	Sombatulla Kalyan Raj	203716	M Tech	VOLVO	After Market
7	Raushan Kumar	203668	M Tech	VOLVO	After Market
8	Vikram Raj	203672	M Tech	VOLVO	After Market

9	Maheshwari Ravulla	203755	M Tech	VOLVO	After Market
10	Raviteja Marella	203756	M Tech	VOLVO	After Market
11	Talabhaktula Kranti Kumar	203519	M Tech	VOLVO	After Market
12	Sparshal Kothari	183270	B Tech	Fischer Jordan	ANALYST
13	Avanti Chandratre	183114	B Tech	Fractal Analytics	ANALYST
14	Praveen Balajji	183157	B Tech	Fractal Analytics	Analyst
15	Pravin Pramasagaran	183256	B Tech	Fractal Analytics	Analyst
16	Nikhil Kumar Goli	183127	B Tech	o9 Solutions	Analyst
17	Aonirjeeto Goswaami	183106	B Tech	o9 Solutions	Analyst
18	Shaik Munazzah	183168	B Tech	o9 Solutions	Analyst
19	Rebanta Sarkar	183160	B Tech	o9 Solutions	Analyst
20	Pitta deena kanth	183255	B Tech	o9 Solutions	Analyst
21	Uday Bhaskar Varada	183274	B Tech	o9 Solutions	Analyst
22	Nidhi Verma	183249	B Tech	o9 Solutions	Analyst
23	Himanshu Barsinge	183229	B Tech	o9 Solutions	Analyst
24	Merrick Anthony Menezes	183245	B Tech	Deloitte	Analyst
25	Manas Chodimalla	183217	B Tech	Deloitte	Analyst
26	Sumit Agrawal	183172	B Tech	Shadowfax	Analyst

27	Gayathri Prasad	183224	B Tech	Darwinbox	Analyst
28	Devi Phani Sai Chandra Mouli K	183238	B Tech	Indxx	Analyst
29	Akash Dighade	183201	B Tech	PharmaACE	Analyst/Software
30	Dhanush Kumaran	183120	B Tech	PharmaACE	Analyst/Software
31	B Anup Rao	183211	B Tech	PwC India	Associate
32	Fateen Ahmed	183222	B Tech	PwC India	Associate
33	Masabattula Hari Krishna	203662	M Tech	PwC India	Associate
34	Lagisetti Virinchi Krishna	203572	M Tech	PwC India	Associate
35	Arnav Amiya	203802	M Tech	PwC India	Associate
36	Ashwasan Sikdar	203604	M Tech	PwC India	Associate
37	Vashisht Kant	203570	M Tech	PwC India	Associate
38	Sai Srikar V P N S Pandrangi	183152	B Tech	Capgemini	Associate Consultant
39	MIQDAD T	183147	B Tech	EXL	Business Analyst
40	Jangam Steven	183230	B Tech	Genpact	Consultant
41	Ghanshyam Meena	183126	B Tech	Genpact	Consultant
42	Rahul Alexander magapu	183103	B Tech	Genpact	Consultant
43	Sahit Chavan	203514	M Tech	BYJUS	Content DEVELOPER

44	Mahalpure Tejas Sunil	203670	M Tech	BYJUS	Content DEVELOPER
45	Sridurga Balahoju	203619	M Tech	WabTec	CORE
46	Dhanyamraju Naga Sai Surya C	183220	B Tech	Bajaj Auto	CORE
47	Chetan Moon	183116	B Tech	ExxonMobil	CORE
48	Swapnil Soni	183173	B Tech	ExxonMobil	CORE
49	Venkata Narasimha Rao A	203571	M Tech	Bajaj Auto	Core
50	Pal Vikas Jitendra Kumar	203510	M Tech	Bajaj Auto	Core
51	Shaik Ijazuddeen	203567	M Tech	Bajaj Auto	Core
52	Malladi Shanmukha Priya	183243	B Tech	Bajaj Auto	Core
53	Hrishikesh Tule	183273	B Tech	Becton Dickinson	Core
54	Malvika Singh	183145	B Tech	ITC	CORE
55	Sahith Bandi	183208	B Tech	GE Healthcare	CORE
56	Natarajan Avinash	183150	B Tech	Jubilant Foodworks	Core
57	Parth Galundia	183252	B Tech	Jubilant Foodworks	Core
58	Aki Harish	183102	B Tech	Caterpillar	Core
59	Shubham Sanjeev Das	183268	B Tech	Caterpillar	Core
60	Anumula Shashank	183205	B Tech	TATA Projects	Core

61	S.Sumana	183264	B Tech	TATA Projects	Core
62	Akanksha Hundekari	203551	M Tech	GE Healthcare	Core
63	Neha Vanaparthi	183176	B Tech	TATA Electronics	Core
64	Bheri Gowthami Priya	183110	B Tech	TATA Electronics	Core
65	Arravaram Lakshman	203502	M Tech	TCE	Core

Department Outreach activities

Dr. A. Veeresh Babu is nominated as a BOS member for Automobile Engineering, JNTUK, Kakinada, AP
Dr. A. Veeresh Babu is nominated as a BOS member for Mechanical Engineering, JNTU Anantapur, AP.
Dr. A. Veeresh Babu is nominated as a BOS member for Mechanical Engineering, JNTU EC, Pulivendula, AP.
Dr. A. Veeresh Babu is nominated as a BOS member for Mechanical Engineering, NRI Institute of Technology, Vijayawada, AP
Dr. A. Veeresh Babu is nominated as a BOS member for Mechanical Engineering, VFSTR University, AP

Dr. M.Manjaiah rendered his services as Subject Expert for PhD interview at Symbiosis Centre for Research and Innovation (SCRI), Symbiosis International (Deemed University) Pune
Prof. V. Suresh Babu is nominated as a BOS member for JNTU Hyderabad, BVC college of Engineering Rajahmundry, Malla Reddy Engineering college Hyderabad.

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.

Funded Research Projects

S. No	Project title	Sanctioned Amount	Sanctioned Agency
1	Berra Satish Ben, Development ofself-healing materials based on Thermally reversible polymer for biomimetic structural applications	24.11 Lakhs	SERB, DST
2	Anant Kumar Rai, Enhancing Performance Characteristics of aCentrifugal 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 IndustrialInternet of Things	30.84 Lakhs	ASEAN-DST
5	V Vasu, D Kashinath, Synergistic Effect of Phosphonium, AmmoniumBased Ionic Liquid and Nano Lubricants on the Tribological and Rheological Properties	16.6 Lakhs	SERB, DST
6	Chandramohan V.P., Karthik Balasubramanian, Development ofActive 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 FRPComposites 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, Experimental Investigations on different Geometrical shapes of Passive Direct Methanol Fuel cell stacks for Low Power Applications	43.24 Lakhs	SPARC
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 PassiveDirect Methanol Fuel cell integrated with liquid electrolyte for Portable Power Applications	19.45 Lakhs	SERB-EMR
12	Gudipadu Venkatesh, Manufacturing of Advanced materialsusing microwave hybrid heating technique		MHRD-NITW
13	P. Vamsi Krishna (CO-PI), National Centre for Development ofAdvanced Materials and Manufacturing Processes for Clean Coal Technologies for Power Applications	90.81 Lakhs	DST-ARCI
14	P. Vamsi Krishna (PI), VibrationAssisted 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

Details of students joined in higher educational institutes

S. NO	Students Name	Roll 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 StateUniversity, 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	3262	BTech	Fractal Analytics	--

	Tipparaju				
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	Sudharsha nRamesh	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 ServicesPvt. Ltd.	--
75	Nikhil Chouhan	3135	BTech	314e	--
76	Pasham Bhanumahesh	3239	BTech	Cognizant	--
77	Vangala PranayDeep Reddy	3264	BTech	Axis MyIndia	--
78	Prateek Agarwal	3241	BTech	tredenceanalytics	--
79	Justin Varghese	3221	BTech	tredenceanalytics	--
80	Rahul Agarwal	3244	BTech	tredenceanalytics	--
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 KumarSinha	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 Kishorbh ai	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	Vivekana nd Shanbha g	3810	MTech	TCS Innovatorprofile	--
107	Saurabh	3716	MTech	VECV	--
108	Anand Singh Rawat	3651	MTech	SiemensGamesa	--

109	Lopinti Aneel kumar	3661	MTech	SiemensGamesa	--
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 ServicesPvt. Ltd.	--
114	MUDIT GUPTA	3611	MTech	K-12 Techno ServicesPvt. 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 TejaReddy	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 OF ELECTRONICS AND COMMUNICATION ENGINEERING

Brief History of the Department, Academic Programs

The Department of Electronics and Communication Engineering was established in 1971, along with the setting up of the Regional Engineering College Warangal (RECW), the first among the chain of REC s. The Department of Electronics and Communication Engineering is involved in teaching UG and PG students of Engineering 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. Tech. program with specializations in Electronic instrumentation and Embedded systems, VLSI system Design and Advanced communication. The department is actively engaged in research and has a number of sponsored R & D projects on hand. The faculty is actively engaged in providing solutions to industry problems as consultants. The academic programs of the department are rated among the top in the country. The graduating students are well placed in leading academic institutes, research organizations and industries 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.

The Department of Electronics and Communication Engineering is one of the country's larger ECE departments among all NITs in India and one of the largest departments of the National Institute of Technology, Warangal (NITW). The ECE Department at NITW has been an international reputation of excellence in teaching, research and service. The areas of research include 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.



Faculty Details

S. No.	Name of the Faculty and Designation	Highest Qualification and Date of Joining	Research Interests	Photograph
1	Prof. Sreehari Rao Patri	Ph.D.	Analog and Mixed-Signal IC Design, Power Management ICs, Smart SoC design for IoT applications, Communication Systems, Smart Sensors, SERDES Circuits.	
2	Prof. Narasimha Sarma N V S	Ph.D.	Numerical Electromagnetics ANNs and Wireless Sensor Networks Antennas	
3	Prof. T. Kishore Kumar	Ph.D. DoJ: 01-06-1999	Artificial Intelligence and Machine Learning for Speech, Image & Medical Applications, Real time Embedded systems and Internet of Things	
4	Prof. L. Anjaneyulu	Ph.D. DoJ: 27/04/1997	Computer Networks, Antennas, Microwave Engineering, Signal Processing, Radar Signal processing, Antennas Underwater communications	
5	Prof. N. Bheema Rao	Ph.D. DoJ: 09/06/1993	On-Chip Inductors for RF Applications and Device Modelling	

6	Prof. C.B. Rama Rao	Ph.D. DoJ: 28/08/1982	Digital Signal Processing, Adaptive Signal Processing, DSP Architectures and Algorithms.	
7	Prof. B. Lakshmi	Ph.D. DoJ: 04/04/1990	IoT VLSI Architectures Embedded System Design FPGA Design Low Power VLSI design	
8	Prof. TVK Hanumantha Rao	Ph.D.	Biomedical signal processing and Fault tolerant network on chip	
9	Prof. D. Vakula	Ph.D. DoJ: 30/11/2006	Multifunction Antennas, Ultrawideband antennas, Metamaterials, Fault Diagnosis of Antenna Arrays, Waveguide slot radiators, Conformal Antennas, Artificial neural networks, Terahertz systems	
10	Prof. V.V. Mani	Ph.D.	Signal Processing for wireless communication MIMO OFDM UWB & Green Communication	
11	Prof. J. Ravi Kumar	Ph.D. DoJ: 16/11/2006	Signal Processing, Control System Design, Machine Learning	

12	Prof. S. Anuradha	Ph.D. DoJ: 15/02/2008	Wireless Communications, Coding Techniques, Fading Channels, Cognitive Radios, Signal Processing for Communications, Antennas for Cognitive Radios	
13	Shri M.V. Raghunadh	M.E. DoJ: 16/10/1985	5G Communications, Image Processing, Pattern Recognition	
14	Shri K. Ravi Kishore	M.E.	Wireless Sensor & Computer Networks Digital System Design Wireless Communications	
15	Dr. S.K.L.V. Sai Prakash	Ph.D. DoJ: 24/03/1992	Wireless Communications, Cellular Networks, Computer Networks and Internet of Things	
16	Shri P. Hari Krishna Prasad	M.E. DoJ: 04-06-1993	Wireless communications	
17	Shri K.V. Sridhar	M.Tech. DoJ: 07/05/1997	Bio-medical signal/Image Processing Adaptive Signal Processing	

18	Dr. A. Prakasa Rao	Ph.D. DoJ: 29/07/1999	Smart Antenna Systems, Optimization Techniques, EDC, & Signals and Systems	
19	Dr. P. Muralidhar	Ph.D. DoJ: 30-04-1997	VlSI Architectures,Embedded Systems Design, System on Chip (SoC) Design	
20	Dr. Ch. Rama Rao	Ph.D.	Speech processing	
21	Dr. P. Prithvi	Ph.D.	Digital System Designs, Embedded Systems Designs, Speech Processing	
22	Dr. V. Rama	Ph.D. DoJ: 01/03/1999	Basic Electronics Engg., Digital Electronics, Analog Electronics, Biomedical Instrumentation , Biomedical Signal Processing , Quality Reliability of Electronic Systems , Neural Networks & IC Applications,	
23	Shri K. Sarangam	M.E. DoJ: 04/12/2006	VLSI Circuit Design low power design novel device	

24	Dr. Kalpana Naidu	Ph.D. DoJ: 19/04/2018	Wireless Communication, 5G communication, Heterogeneous Communication, Resource allocation	
25	Dr. G. Arun Kumar	Ph.D. DoJ: 04/06/2018	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	
26	Dr. Atul Kumar Nishad	Ph.D. DoJ: 11/04/2018	VLSI Interconnects, Microelectronics and VLSI, 2D Materials, VLSI Circuits and Systems	
27	Dr. V. Narendar	Ph.D. DoJ: 11/05/2018	Beyond CMOS, Nanoscale device design and modeling, Modeling and simulation of semiconductor devices, Carbon Nanotubes and 2D material based devices, VLSI Circuits & Systems	
28	Dr. Himanshu Shekhar Pradhan	Ph.D. DoJ: 18/04/2018	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.	

29	Dr. Gopi Ram	Ph.D. DoJ: 20/04/2018	Analysis and Synthesis of Radiation Pattern of Time-Modulated Antenna Array Structures; Evolutionary Optimization Techniques; Application of Soft Computing in Electromagnetics; RF and Microwave.	
30	Dr. BKN Srinivasa Rao	Ph.D. DoJ: 18/04/2018	VLSI architectures for image and video processing, Embedded systems design, System on chip (SoC), Network on chip (NoC).	
31	Dr. Md. Farukh Hashmi	Ph.D. DoJ: 11/04/2018	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.	
32	Dr. M. Satish	Ph.D. DoJ: 23/04/2018	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	

33	Dr. Prakash Kodali	Ph.D. DoJ: 19/04/2018	Printed Flexible Electronics, Embedded Systems and Biomedical Electronics	
34	Dr. Chayan Bhar	Ph.D. DoJ: 02/01/2020	AI for networks; Reinforcement Learning based Network Design; Network Design and Analysis	
35	Dr. Ekta Goel	Ph.D. DoJ: 26/12/2009	Modeling and Simulation of Advanced MOS Devices	
36	Dr. Amarjit Kumar	Ph.D. DoJ: 02/12/2019	Active and Passive RF microwave devices and THz components, Sensors	
37	Dr. Vasundhara	Ph.D. DoJ: 17/12/2019	Adaptive Signal Processing, Hearing Aid Design, Distributed System Estimation, Active Noise Control	

Journal Publications

1. Rao L.S., P. Sreehari Rao, Chhabra I.M.;Kumar L.S., "Testing Setup and Delay Compensation in HILS of Aerospace Systems," IETE Journal of Research, Year 2021.
2. Podeti R.;P. Sreehari Rao, Muralidhar P., "Highly reliable XoR Feed Arbiter Physical Unclonable Function (XFAPUF) in 180 nm process for IoT security" Microprocessors and Microsystems, Volume 87, Year 2021.
3. Komatla K.R.;P. Sreehari Rao"An Ultra-Low-Power, Self-Start-Up DC-DC Boost Converter for Self-Powered IoT

Node” Journal of Circuits, Systems and Computers, Year 2021.
4. Nelaturi S.; Sarma N.V.S.N. "Patch Antenna Based on MUC for Wi-Fi and 5G"Article Periodica polytechnica Electrical engineering and computer science, Volume 66,Pages 38-42,Year 2022.
5. Ravi Bolimera and Kishore Kumar T, “Development of High Quality Telugu Speech Synthesis system using Deep Elman Recurrent Neural Networks to Assist Children Education” Volume 14 No 1 (2022): International Journal of Early Childhood Special Education (ESCI) (Accepted)
6. Ravi Bolimera and Kishore Kumar T, “Artificial Intelligence and IoT-based Healthcare System using TTS Assistive Technology for Voice Disordered People” Neuro Quantology, Volume 20, Issue 10, Page 3649-3655, August 2022. doi: 10.14704/nq.2022.20.10.NQ55353. (SCOPUS)
7. Sridhar K V, Kishore Kumar T, “Investigation on the Influence of Parameterization in Speech Enhancement using Low Rank Sparse Decomposition Models under Low SNR Conditions”, Neuro Quantology, Volume 20, Issue 6, Page 9461-94676, 2022.
DOI: 10.14704/nq.2022.20.6.NQ22926 (SCOPUS)
8. Siva Priyanka S., Kishore Kumar T, “Multi-channel speech enhancement using early and late fusion convolutional neural networks” Signal, Image and Video Processing (SIViP), 2022,
https://doi.org/10.1007/s11760-022-02301-4 (SCI)
9. Sunil Kumar Koduri, Kishore Kumar T, “Hybrid Transform based Speech Bandwidth Enhancement using Data Hiding” Traitement du Signal, Jun2022, Vol. 39 Issue 3, p969- 975, DOI: https://doi.org/10.18280/ts.390324 (SCIE)
10. Sunil Kumar Koduri, Kishore Kumar T, “Discrete cosine transform-based data hiding for speech bandwidth extension”. International Journal of Speech Technology (IJST), (2022).
https://doi.org/10.1007/s10772-022-09980-x (ESCI)
11. Venkata Sridhar K, Kishore Kumar T, “Speech enhancement for robust speech recognition using weighted low rank and sparse decomposition models under low SNR conditions” Traitement du Signal, Vol. 39, No. 2, pp. 633-644, 2022. https://doi.org/10.18280/ts.390226 (SCIE)
12. Dasari K.;Anjaneyulu L.;Nadimikeri J. "Application of C-band sentinel-1A SAR data as proxies for detecting oil spills of Chennai, East Coast of India" Article Marine Pollution Bulletin, Volume 174,Year 2022.
13. Suddapalli S.R.;Nistala B.R."Variability analysis of a graded-channel dual-material double-gate strained-silicon MOSFET with fixed charges" Journal of Computational Electronics, Volume 21,Pages 243-252,Year 2022.
14. Murali B.; Rao N.B." Design of a Novel High Q Multi-layer Inductor for VCO Applications" Silicon, Year 2022.
15. Sudarsana Reddy Karnati, Lakshmi Boppana, D.R. Jahagirdar, “A Novel Loss Tolerant Data Transmission Schemes for Airborne Telemetry System of a Long-Range Aerospace Vehicle”, Vol. 72, No. 1, pp. 114-121, Defence Science Journal, January 2022.
16. Guthi SRINIVAS, Damera VAKULA, “High gain and wideband circularly polarized S-shaped patch antenna with reactive impedance surface and frequency-selective surface configuration for Wi-Fi and Wi-Max applications”, International Journal of RF and Microwave Computer-Aided Engineering, 11

August 2021 https://doi.org/10.1002/mmce.22865 .
17. Guthi SRINIVAS, Damera VAKULA, “Aperture coupled CPW feed for high gain and broadband circularly polarized slot loaded square patch metasurface antenna”, Microwave and Optical Technology Letters, 15 February 2022 https://doi.org/10.1002/mop.33202.
18. Guthi SRINIVAS, Damera VAKULA, “High gain and broadband circularly polarized antenna using metasurface and CPW fed L-shaped aperture”, AEU-International Journal of Electronics and Communications, 146 (2022) 154109 https://doi.org/10.1016/j.aeue.2022.154109 Pp1-8
19. Sowjanya A.; Vakula D."Compact Dual Bandpass Filter Using Dual-Split Ring Resonator for 5G Upper Microwave Flexible Use Services" Journal of Electromagnetic Engineering and Science, Volume 22,Pages 434-439, Year 2022.
20. Shravan Kumar Bandari, Satyendra Singh Yadav, VV Mani, "Analysis of GFDM in generalized η− μ fading channel: A simple probability density function approach for beyond 5G wireless applications", AEU-International Journal of Electronics and Communications, Pages.154260, June 2022, Elsevier (SCI)
21. T Deepa, Vappangi Suseela, VV Mani, "Performance analysis of novel precoding matrix techniques for optical OFDM-based visible light communication systems", Optics & Laser Technology, Elsevier, Pages - 108293, Vol.154,Oct 2022, https://doi.org/10.1016/j.optlastec.2022.108293(SCI)
22. Renikunta Mallaiah, VV Mani,"A Novel OTFS System Based On DFrFT-OFDM", IEEE Wireless Communications Letters, March 2022, Doi:10.1109/LWC.2022.3159534 (SCI)
23. Suseela Vappangi, Vakamulla Venkata Mani, "Impact of STO and STO-estimation in DST-DCO-OFDM-based visible light communication systems",ICT Express Elsevier, FEb 2022, https://doi.org/10.1016/j.icte.2022.02.005 , (SCI)
24. M Jammula, VM Vakamulla, SK Kondoju, " Performance Evaluation of Lightweight Cryptographic Algorithms for Heterogeneous IoT Environment", Journal of Interconnection Networks, pages-2141031, Jan 2022
25. Ganesh Miriyla, VV Mani,"A nonlinear modelled low-complex ADO-OFDM for Visible light communication systems", Optik, Volume 246, November 2021, Elsevier(SCI).
26. Kishore Vejandla, V.V.Mani, "A novel timing synchronization method for OFDM based VLC systems", Optik, Volume 244, October 2021, 167206, Elsevier(SCI).
27. 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(SCI)
28. K Ashwin, Hathiram Nenavath, Ravi Kumar Jatoth, Image and Video Dehazing based on Transmission Estimation and Refinement using Jaya Algorithm, Elsevier, Journal, Optik, Volume 265, September 2022, 169565.
29. JailsinghBhookyaa, M.Vijaya Kumara J.Ravi Kumar A.Seshagiri Raob, Implementation of PID Controller for Liquid Level System using mGWO and integration of IoT application, Elsevier , Journal of Industrial Information Integration,Volume 28, July 2022, 100368, (IF ,10)
30. Alagesan Bhuvaneswari Ahadit, Ravi Kumar Jatoth, "A Novel Multi-Feature Fusion Deep Neural Network using HOG and VGG-Face for

Facial Expression Classification" Springer Journal Machine Vision and Applications
31. Vijaya Kumar Munagala, Ravi Kumar Jatoth "A novel approach for controlling DC motor speed using NARXnet based FOPID controller" Springer Journal Evolving Systems, .
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Conferences

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"Performance Enhancement of SPR sensor in NIR-Region for urea detection using MoS2-Dielectric materials-MnS2 Based Structure" 2021 Asian Conference on Innovation in Technology (ASIANCON), 1-4 .2021.
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30. Das A.;Vasundhara "Recursive Chebyshev Functional Link Adaptive Filter for Sparse Nonlinear System Identification with impulsive noise interference" 2022 3rd International Conference for Emerging Technology, INCET 2022, Year 2022
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32. Ache Sushmitha, Amarjit Kumar, "SSPP Based Band Rejection Filter Using CSRR," International Conference on Next Generation Wireless Communication and Networking Technology for a Smarter World (ICNGTSW-2022), Chennai, Apr. 2022, pp. 1–4.
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34. Patri Upender, Amarjit Kumar, "Circularly Polarized 2×2 MIMO

Dielectric Resonator Antenna for Terahertz Applications," 2021 IEEE Indian Conference on Antennas and Propagation (InCAP), Jaipur, Dec 2021, pp. 283–286, DOI: 10.1109/InCAP52216.2021.9726292 .

Funded Research Projects

1. Prof. P. Sreehari Rao, "Design and Implementation of Smart Internet of Things (IoT) System," Global Initiative for Academic Networks (GAIN) Rs.5.68 Lakh
2. Dr. G. Arun Kumar, Prof. P. Sreehari Rao and Prof. L. Anjaneyulu, Miniature High Performance GNSS ultra-Low Noise Amplifier with NavIC Signals, 28.75 Lakhs, ISRO-IISU
3. Prof. T. Kishore Kumar (PI), Development of Artificial Intelligence And IoT Based Portable Knee Joint Health Care Monitoring System For Rural India, 38.61 Lakhs, SERB - CRG
4. Prof. T. Kishore Kumar (PI), Development of Novel Video/ Image Compression Algorithms, 9.8 Lakhs, DRDO, Go
5. Prof. B. Lakshmi (PI) "Technology Driven approaches for Neurodevelopmental and Neurodegenerative Disorders" Global Initiative for Academic Networks (GAIN) Rs.5.68 Lakh
6. Prof. J. Ravi Kumar (PI), Development of IP core for accident prevention system during rainy and hazy weather conditions,19.65 Lakhs,SERB, DST
7. Prof. S. Anuradha (PI), Hardware implementation of UAV based Spatial NOMA for 6G Networks, 32.00 Lakhs, DST-SERB
8. Dr. Gande Arun Kumar and Dr. Gopi Ram (Department of ECE)havereceived a project on 'CARS Project ASL-DRDO: Study and simulation of metamaterials for RF communication blackout during Re-entry', worth of Rs. 9.98 Lakhs
9. Dr. Narendar (PI), Design and Optimization of Novel Negative Capacitance (NC) FET for Low-Power and High-Switching Applications 33.00 Lakhs DST-SERB
10. Dr. Prakash Kodali, Flexible and Wearable Triboelectric Nanogenerators Development for Sensing, Energy Harvesting to Drive Implantable Electronic Medical Devices - 3 Years (2022-2025) 35.20 Lakhs DST-SERB
11. Dr. Prakash Kodali, D-Powerpad: Self Configurable Renewable Powered Autonomous Drone Charging Station with Battery Swapping System- 1.5 Years (2022-2023) 17.80 Lakhs TiHAN-IITH.
12. Dr. Prakash Kodali, Smart Electronic Handheld Device for Non-Invasive Drug Delivery – 1 Year (2022-2023) 12.75 Lakhs MSME Innovation
13. Dr. Prakash Kodali, Screening of Salt Tolerance in Plants using Internet of Things and Machine Learning – 1 year (2022-2023)12.75 Lakhs MSME Innovation

ONGOING PROJECTS

1. Prof. V Venkata Mani, Indigenous test bed for Industry 4.0 using Visible Light Communication with Industrial Internet of Things,

AISTIC, 68lakh
2. Dr. K. Naga Srinivasarao Batta, Programmable Electronic Jacquard Machine for complex designs in Handloom sector, SERB Start-up Research Grant Project, 22.5 Lakhs
3. Dr. Chayan Bhar, Design of a multi-operator telecommunication network to support heterogeneous services using network slicing, SERB Start-up Research Grant Project, 12.5 lakhs
4. Dr. Chayan Bhar, Design of a multi-operator telecommunication network to support heterogeneous services using network slicing, RSM, 4.8 Lakhs
5. Dr. Vasundhara, Design and Development of an integrated self-voice enhancement and feedback mitigation system for hearing assistive devices, RSM, 4.9 Lakhs
6. Dr. Amarjit Kumar, Wireless Health Monitoring of Ripened Fruits and Vegetables in Cold-Stores, RSM, 4.9 Lakhs
7. Dr. Ekta Goel, Performance optimization of Tunneling Finfets, RSM, 4.9 Lakhs.

Patents

S. No	Date of Filing	Patent Title	Patent Applicant Name(s)	Patent No.	Department	Patent Nation	Patent Status
1	2021-08-23	A Flipped Voltage Follower-Based Low Drop-Out Regulator Device	Reddy, K. Krishna; Patri, Sreehari Rao; Reddy, M. V. Krishna	2021106673	ECE	Australia	Granted
2	2021-08-21	IoT Based System And Method For Malnutrition Tracking	Shukla, Saurabh; Patri, Sreehari Rao; Avinash P.	2021106366	ECE	Australia	Granted
3	2021-08-16	A Solar Powered Cooling Chamber For Storing Farm Produce	Sridhar, Sushyanth; Devanuri, Jaya Krishna; Rao Patri, Sreehari	2021105620	ECE	Australia	Granted
4	2021-08-16	A Tele-Health Care System And Method For Early Disease Detection	Rama, V.; Rama Rao, C. B.; swaraj, Nikhil; Cumarasurier, Shantosh; Moni, Vidya	2021105599	ECE	Australia	Granted

Books and Book Chapters

1. Sreenu S.; Naidu K. "Novel User Association Scheme Deployed for the Downlink NOMA Systems" Lecture Notes in Networks and Systems, Volume 461, Pages 637-650, Year 2022.
2. Arun Kumar Gande, G Ram, "Metamaterial based Microwave Coupler Design" Handbook on Metamaterials-based frequency selective surfaces, 2022.
3. Anshika Shrivastav, Pradeep Kamal, Yash Deshmukh, Patri Upender, B. Yakub, Amarjit Kumar, "Design of novel key hole shaped multiband MIMO Antenna for 5G applications," Printed antenna: Design and challenges, chapter 10, Taylor and Francis, June 2022. (Accepted under production)
4. Rayaluru Akshay, M Anas, Kourike Sai Kiran, P. Upender, B. Yakub, Amarjit Kumar, "A Novel Tri-band bandpass filter for 5G Applications," Printed antenna: Design and challenges, chapter 8, Taylor and Francis, June 2022. (Accepted under production)

Conferences, workshops, FDPs, Webinars organized

S. No	Title	Dates, Month, Year	No. of Participants	Organized by	Coordinators
1	Recent Trends in Wireless Communication Technologies - Online Mode	5th August, 2021, 14th August, 2021	53	Department of Electronics and Communication Engineering	Dr. B. Lakshmi, Dept. of ECE, NIT Warangal & Dr. C. Jeyalakshmi, Dept. of ECE, K. Ramakrishnan College of Engineering, Samayapuram, Trichy
2	Deep Learning and Machine Learning in Biomedical Signal Processing - Online Mode	23rd August, 2021, 3rd September, 2021	60	Department of Electronics and Communication Engineering	Dr. J. Ravi Kumar, Dept. of ECE, NIT Warangal & Sarada Aavula, Dept. of ECE, G. Narayanamma Institute of Technology and Science for Women, Hyderabad & Dr.G.Amjad Khan, Dept.of ECE, G.Pulla Reddy Engineering College(Autonomous), Kurnool
3	Recent & Emerging Trends in Wireless Communication	6th September, 2021, 16th September, 2021	55	Department of Electronics and Communicat	Sri. Ravi Kiore Kodali, Dept. of ECE, NIT Warangal & Dr. Rajkumar L. Biradar, ETM Dept., G. Narayanamma Institute of

	: 4G & 5G Technologies - Online Mode			ion Engineering	Technology and Science (for Women), Shaikpet, Hyderabad
4	AI & ML: Real Time Applications - Online Mode	20th September, 2021, 30th September, 2021	61	Department of Electronics and Communication Engineering	Dr. J. Ravi Kumar, Dept. of ECE, NIT Warangal & Dr. A. Naveena, Dept. of ETE, G. Narayanamma Institute of Technology and Science for Women, Hyderabad
6	AWS and Machine Learning - Online Mode	4th October, 2021, 13th October, 2021	53	Department of Electronics and Communication Engineering	Dr. B. Lakshmi, Dept. of ECE, NIT Warangal & Dr. Lakshmi Narayana Thalluri, Dept. of ECE, Andhra Loyola Institute of Engineering and Technology, Vijayawada
7	Artificial Intelligence and Machine Learning with Python Programming - Online Mode	11th October, 2021, 22nd October, 2021	50	Department of Electronics and Communication Engineering	Dr. J. Ravi Kumar, Dept. of ECE, NIT Warangal & Prof. T. Y. Melligeri, Dept. of ECE, BLDEA's V P Dr PG Halakatti College of Engineering & Technology, Vijayapur
8	Machine Learning for Signal Processing - Online Mode	25th October, 2021, 5th November, 2021	93	Department of Electronics and Communication Engineering	Dr. J. Ravi Kumar, Dept. of ECE, NIT Warangal & Dr. A.V.Paramkusam, Dept. of ECE, Lendi Institute of Engineering & Technology, Vizianagaram
9	AI & Machine Learning for Computer Vision Applications - Online Mode	3rd December, 2021, 12th December, 2021	50	Department of Electronics and Communication Engineering	Dr. Md. Farukh Hashmi, Dept. of ECE, NIT Warangal & Dr. Jagdish D. Kene, Department of Electronics & Communication, Shri Ramdeobaba College of Engineering and Management, Nagpur
10	Recent Trends in Antenna Design and Applications - Online Mode	6th December, 2021, 15th December, 2021	50	Department of Electronics and Communication Engineering	Dr. L. Anjaneyulu, Dept. of ECE, NIT Warangal & Dr. D. M. K. Chaitanya, Dept. of ECE, Vasavi College of Engineering, Hyderabad

11	Introduction to Low Power VLSI Design and Applications - Online Mode	23rd Dec 2021 to 3rd Jan 2022	60	Department of Electronics and Communication Engineering	Dr. Hanumanth Rao T V K, Dept. of ECE, NIT Warangal
12	AI & Machine Learning for IOT and Computer Vision Applications - Online Mode	16th to 25th Jan 2022	53	Department of Electronics and Communication Engineering	Dr. Md. Farukh Hashmi, Dept. of ECE, NIT Warangal & Dr. D. Narendar Singh, Dept. of ECE, Anurag University, Medchal
13	Optical Wireless Communication - An enabling technology for next-generation networks - Online Mode	24th Jan to 2nd Feb 2022	48	Department of Electronics and Communication Engineering	Dr. V. V. Mani, Dept. of ECE, NIT Warangal & Dr. P. Samundiswary, Electronics Engineering Department, Pondicherry University, Puducherry
14	AI for Communication and Signal Processing Applications - Online Mode	5th Feb 14th Feb 2022	52	Department of Electronics and Communication Engineering	Dr. Md. Farukh Hashmi, Dept. of ECE, NIT Warangal & Dr. Venkata Sainath Gupta T, Department of ECE, VR Siddhartha Engineering College, Vijayawada
15	Nanoscaled Devices and Internet of Things for Engineering Applications - Online Mode	15th Feb to 25th Feb 2022	55	Department of Electronics and Communication Engineering	Dr. Ekta Goel, Dept. of ECE, NIT Warangal
16	Signal and Image Processing Techniques for Next Generation Applications - Online Mode	4th Mar to 13th Mar 2022	58	Department of Electronics and Communication Engineering	Dr. Vasundhara, Dept. of EECE, NIT Warangal
17	Machine Learning Applications in Electronics and Communication Engineering - Online Mode	7th Mar to 16th Mar 2022	56	Department of Electronics and Communication Engineering	Dr. J. Ravi Kumar, Dept. of ECE, NIT Warangal & Dr. Vetriveeran Rajamani, Department of ECE, Nalla Malla Reddy Engineering College (Autonomous), Hyderabad

18	AI/ML Algorithms for Signal and Image Processing	21st Mar to 31st Mar 2022	53	Department of Electronics and Communication Engineering	Dr. J. Ravi Kumar, Dept. of ECE, NIT Warangal & Dr. M. Nagaraju Naik, Dept. of ECE, CMR College of Engineering and Technology, Hyderabad
19	Low Power VLSI Design - Online Mode	28th Mar to 7th Apr 2022	51	Department of Electronics and Communication Engineering	Dr. P. Muralidhar, Dept. of ECE, NIT Warangal & Dr. V. Padmanabha Reddy, Department of ECE, Institute of Aeronautical Engineering, Dundigal
20	Machine Learning for Audio, Image and Biomedical Signal Processing - Online Mode	8th Apr to 15th Apr 2022	53	Department of Electronics and Communication Engineering	Prof. T. Kishore Kumar, Dept. of ECE, NIT Warangal & . Dr. B. Surekha Reddy, Dept. of ECE, Institute of Aeronautical Engineering , Hyderabad
21	Role of Artificial Intelligence in Communication and Signal Processing Applications - Online Mode	8th Apr to 15th Apr 2022	50	Department of Electronics and Communication Engineering	Dr. Md. Farukh Hashmi, Dept. of ECE, NIT Warangal & Dr. K S Balamurugan, Department of ECE, Chalapathi Institute of Engineering and Technology, Guntur
22	AI/ML for Computer Vision and Medical Image Analysis Applications - Online Mode	18th Apr to 27th Apr 2022	57	Department of Electronics and Communication Engineering	Dr. Md. Farukh Hashmi, Dept. of ECE, NIT Warangal & Dr. Venkateshappa, School of ECE, REVA University, Bengaluru
23	Machine Learning in Real Time Embedded & IoT Applications - Online Mode	2nd May to 11th May 2022	60	Department of Electronics and Communication Engineering	Dr. J. Ravi Kumar, Dept. of ECE, NIT Warangal & Dr. K. Phaninder Vijay, Dept. of ECE, Raghu Engineering College, Visakhapatnam
24	Applications of AI in Wireless Communication and Sensor Networks - Online Mode	4th May to 14th May 2022	43	Department of Electronics and Communication Engineering	Dr. V. V. Mani, Dept. of ECE, NIT Warangal & Dr. Rangaiah L, Dept. of ECE., RajaRajeswari College of Engineering, Bangalore

25	Applications of Applied Signal Processing, Communications and Devices for IoT driven e- Health Care - Online Mode	12th May to 21st May 2022	67	Department of Electronics and Communication Engineering	Dr. J. Ravi Kumar, Dept. of ECE, NIT Warangal & Dr. Javaid Ahmad Sheikh, Post Graduate Department of Electronics and Instrumentation Technology, University of Kashmir, Srinagar
26	Wireless Network on Chip (NoC) Architectures - Online Mode	23rd May to 30th May 2022	49	Department of Electronics and Communication Engineering	Dr. Kota Naga Srinivasarao Batta, Dept. of ECE, NIT Warangal & Deepthi M S, Dept. of ECE, The National Institute of Engineering, Mysuru, Karnataka
27	Artificial Intelligence for Computer Vision and Image Processing - Online Mode	6th June to 18th June 2022	80	Department of Electronics and Communication Engineering	Prof. T. Kishore Kumar, Dept. of ECE. NIT Warangal & Dr. Jothi Prabha Appadurai, Dept. of CSE - Networks, KITS Warangal
28	Applications of AI & ML in Signal Processing and Communications - Online Mode	23rd June to 30th June 2022	87	Department of Electronics and Communication Engineering	Dr. Md. Farukh Hashmi, Dept. of ECE, NIT Warangal & Prof. V. B. S. Srilatha Indira Dutt, Department of EECE, GITAM School of Technology, GITAM Deemed to be University, Vizag
29	AI and Machine Learning for Biomedical Signal and Image Analysis - Online Mode	27th June to 6th July 2022	47	Department of Electronics and Communication Engineering	Prof. T. Kishore Kumar, Dept. of ECE. NIT Warangal & Dr. K. Ashoka Reddy, Dept. of ECE, Kakatiya Institute of Technology and Science, Warangal
30	Machine Learning, Artificial Intelligence and its Applications - Online Mode	4th July to 14th July 2022	60	Department of Electronics and Communication Engineering	Dr. J. Ravi Kumar, Dept. of ECE, NIT Warangal & Dr. D. M. Kotamkar, Dept. of Electronics Engineering, Shri Ramdeobaba College of Engineering and Management, Nagpur
31	Analytical Techniques for Nanomaterials - Online Mode	18th July to 25thth July 2022	53	Department of Electronics and Communicat	Arun Kumar Gande, Dept. of ECE, NIT Warangal & Prof. Supreetha. M, Dept. of ECE, JSS Science & Technology University,

				ion Engineering	Mysuru
32	EDA Tools for Industry 4.0 - Online Mode	18th July to 25th July 2022	37	Department of Electronics and Communication Engineering	Dr. Sreehari Rao Patri, Dept. of ECE, NIT Warangal & Dr. Sita Devi Bharatula,, Dept. of ECE, Amrita School of Engineering, Amrita Vishwa Vidyapeetham, Chennai Campus
33	Signal and Image Processing Techniques for Next Generation Applications	04-13th March 2022	58	Department of Electronics and Communication Engineering	Dr. Vasundhara, Dept. of ECE, E&ICT Academy, NIT Warngal
34	AI and ML in Next Generation Communication Technologies and Systems	25th July to 4th Aug. 2022	55	Department of Electronics and Communication Engineering	Prof. D. Vakula, Dept. of ECE, NIT Warangal &Dr Shaguntala R&D Institute of Science and Technology, Chennai
35	Artificial Intelligence enabled Internet of Things and its applications – Theory and Practice	30 May - 03 Jun 2022		Dept. of ECE	Prof.T.Kishore Kumar
36	Artificial Intelligence in IoT - Online Mode	22 July – 02 August, 2022	74	Dept. of ECE	Prof.T.Kishore Kumar
37	Recent Research Trends and Applications of Artificial Intelligence and Machine Learning - Online Mode	10-20 August, 2022		Dept. of ECE	Prof.T.Kishore Kumar
38	AI and Machine Learning in Biometric Recognition - Online Mode	16-25 August, 2022	54	Dept. of ECE	Prof.T.Kishore Kumar

39	Applications of Artificial Intelligence & IoT in Engineering - Online Mode	22 -30 August, 2022	-	Dept. of ECE	Prof.T.Kishore Kumar
40	GIAN – Course on Advancement in Speech Modeling and Applications	05th – 09th Sep 2022	29	Dept. of ECE	Prof.T.Kishore Kumar

Invited talks delivered

1. Prof. T. Kishore Kumar has delivered an online guest lectures at Institute of Aeronautical Engineering, Hyderabad on "Introduction to Machine Learning & Signal Processing" on 08/04/2022, "Sequence Modelling for Speech Recognition" on 11/04/22 and "Machine Learning for Biomedical Applications" on 15/04/22
2. Prof. T. Kishore Kumar has delivered an online guest lectures at Kakatiya Institute of Technology and Sciences, Warangal on "Introduction to AI & ML in Health Informatics" on 28 th June and ML techniques for emotion recognition" 02 nd July, 2022.
3. Prof. T. Kishore Kumar has delivered an online guest lectures at Kakatiya University Warangal on "Artificial Intelligence and IOT" on 22-07-2022 and "Diabetic Retinopathy detection using Deep Learning Technique" on 25-07-2022.
4. Prof. T. Kishore Kumar has delivered an online guest lectures at KU College of Engineering & Technology. KU campus, Kakatiya University, Warangal on "Artificial Intelligence and its applications in Signal Processing" on 10/08/2022 and "Emotion based recognition approaches using AI" on 19/08/2022.
5. Prof. T. Kishore Kumar has delivered an online guest lectures at Sridevi Women's Engineering College, Hyderabad on "Key Note Address: Role of AI & IoT" on 22/8/22 and "Emotion based recognition approaches using AI" on 24/8/22
6. Prof. T. Kishore Kumar has delivered an online guest lectures at National Institute of Technology Warangal, on Speech Processing/Enhancement on 05/09/2022 and Machine Learning for Emotion Recognition on 07/09/2022
7. Dr. Gande Arun Kumar hasa "Microwave filter design", Online Faculty Development Programme On EDA Tools for Industry 4.0, jointly organized by Electronics & ICT Academy, NIT Warangal, and Amrita School of Engineering, Amrita Vishwa Vidyapeetham, Chennai Campus, July 2022.
8. Dr. Chayan Bhar hasdelivered a "Routers for WiNoC" and "Routers & its Algorithms", Online Faculty Development Programme On

Wireless Network on Chip Architectures, jointly organized by Electronics & ICT Academy, NIT Warangal, and NIE Mysuru, March 2022.

PhD Research guidance

1. K.V.B Vasanta Rayudu (Roll No. 701358) completed his PhD with the title "Some Investigations of efficient testing and fault diagnosis algorithm for VLSI circuits" under the guidance of Prof. Patri Sreehari Rao
2. Aruru Sai Kumar (Roll No. 717129) completed his PhD with the title "Real-Time Embedded Application Core Mapping for NoC with enhanced performance and energy efficiency" under the guidance of Prof. T. V. K. Hanumantha Rao
3. Ravikanti Swetha (Roll No. 716141) completed his PhD with the title "Some Investigations on performance evaluation of compact circularly polarized anntennas for 5G wireless applications" under the guidance of Prof. L. Anjaneyulu
4. Krishna Reddy Komatla (Roll No. 718042) completed his PhD with the title "Novel design Techniques for energy harvesting Integrated circuits" under the guidance of Prof. Patri Sreehari Rao
5. S Siva Priyanka (Roll No. 717030) completed his PhD with the title "Development of novel adapative Beamframing approaches for Multi-Channel speech enhancement" under the guidance of Prof. T. Kishore Kumar
6. Kanaka Linga Venkata Sai Prakash Sakuru (Roll No. 718047) completed his PhD with the title "Time Synchronization over bounded delay paths in wireless sensor and IoT networks" under the guidance of Prof. N. Bheema Rao.
7. Bodile Roshan Mukindrao (Roll No. 716025) completed his PhD with the title "Investigations on Model-Based Bayesian filtering approach and Meta- heuristic algorithms for ECG Denoising" under the guidance of Prof. T. V. K. Hanumantha Rao.
8. Vakkalakula Bharath Srinivasulu (Roll No. 718144) completed his PhD with the title "Design and optimization of spacer engineered emerging Nanoscale junction less FETs for Low power and High frequency applications" under the guidance of Dr. Vadhiya Narender.
9. Karnati Sudarsana Reddy (Roll No. 716032) completed his PhD with the title "An optimal Airborne telemetry system for long range Aerospace vehicles" under the guidance of Prof. B. Lakshmi.

Awards, Outreach Activities, Achievements and Distinctions of Faculty members

1. Prof. P. Sreehari Rao, Member - Review committee by Ministry of Defence, Govt. of India for Project Design Review (PDR)/ Detailed Design Review/DDR/Tapeout review committee for the readout IC of MEMS GYROSCOPE SENSOR" of RCI, DRDO.
2. Prof. T Kishore Kumar, Member - Review committee by Ministry of

Defence, Govt. of India for reviewing the project "Design and Development of Digital Signal Processor for Extended Range MMW Seeker" of RCI, DRDO
3. Prof. T Kishore Kumar, Member-NBA Accreditation Expert Team visited to M.P Nachimuthu M Jaganathan Engineering College Chennimalai Erode 683112 Tamil Nadu from 27th to 29th May 2022
4. Prof. T Kishore Kumar, Member-NBA Accreditation Expert Team visited to G H Patel College of Engineering & Technology, Bakrol Road Vallabh Vidyanagar, Gujarat – 388120
5. Prof. T Kishore Kumar, Member-NBA Accreditation Expert Team visited to Puranmal Lahoti Government Polytechnic, Ausa Road, Latur, Maharashtra – 413512
6. Prof. D. Vakula, Best poster paper award for "Compact Complementary Symmetric Ring Resonator Band Stop Filter for Ku band applications" Wireless Antennas and Microwave Symposium 2022, 5-8 June 2022, NIT Rourkela, Orissa
7. Dr. Prakash Kodali, Best Researcher Award in International Scientist Awards on Engineering, Science and Medicine, Bangalore, 2021.
8. Dr. AMARJIT KUMAR, Best research paper award in AICTE sponsored international conference ICNGTSW-2022 organized by R.M.K. engineering college, Chennai, April 2022

New Lab Equipments/software/Workstations Installed

1. Programming using Python on Moodle LMS

2. NI Labview software for Advanced wireless communication systems lab

3. Vector network analyzer

Best student papers and other achievements

1. P. K. Pokala, R. V. Hemadri and C. S. Seelamantula, "Iteratively Reweighted Minimax-Concave Penalty Minimization for Accurate Low-rank Plus Sparse Matrix Decomposition," in IEEE Transactions on Pattern Analysis and Machine Intelligence, doi: 10.1109/TPAMI.2021.3122259.
2. K.V. Sridhar. C Chandravathi, H. Raghuvamshi, and Sarvesh Kumar, "Performance Analysis of Weighted Low Rank Model With Sparse Image Histograms For Face Recognition Under Lowlevel Illumination And Occlusion," The IEEE International Conference on Intelligent Technologies(CONIT 2021)" Hubballi, Karnataka, India.10.1109/CONIT51480.2021.9498351, 2021,978-1-7281-8583-5/21
3. R RAMA KRISHNA, ANURADHA.S, SHAIK OMAR FAROOK, SURIGI HEMACHANDER, "Comparative Analysis of 5G Multicarrier Techniques with Index modulation," 2021 Second International Conference on Electronics and Sustainable Communication Systems (ICESC), 4-6 Aug. 2021, Coimbatore, India 10.1109/ICESC51422.2021.9532614 602-610, 23-Sep-21 978-1-6654-2867-5
4. Mohamamd Farukh Hashmi, Vishal

Gupta, Dheeravath Vijay and Vinaybhai Rathwa, "Computer Vision-Based Assistive Technology for Helping Visually Impaired and Blind People Using Deep Learning Framework," Handbook of Research on Emerging Trends and Applications of Machine Learning
5. Md. Farukh Hashmi, N. K. Priya, S. S. Reddy, G. Vakula, and D. Usha, "Drowsiness detection system using Rasberry Pi and Open CV," International conference on mobile computing ans sustainable informatics, 2021.
6. B. Bhavana and Gande Arun Kumar, "Design of MMIC Ka-band Gallium Nitride mixer with high linearity" International conference on Advances in Signal processing, VLSI, Communications and Embedded systems (ICSVCE-2022), 29-30 July, 2022.

Details of students joined in higher educational institutes/companies

Roll No	Name	Placement Details	Current Status
184133	KOTA SRILAHARI	PROVIDENCE HEALTH CARE	Placed
184108	ATKURI BOOMIKA	SYNOPSYS	Placed
184118	DEEPAK RAJESH	ICICI	Placed
184102	AMARTHYASEN AKKANEPALLY	BEL	Placed
184114	CHILKURI YAGNA	QUALCOMM	Placed
184144	VISHNUPRAKASH PENDEM	JIO	Placed
184153	RISHIK SHEKAR SALVER	NOT APPLIED FOR ANY PLACEMENT	Applied for MTech
184103	ALUKA KOTIREDDY	AMDOCS	Placed
184162	SUSARLA AKHIL	SAP LABS	Placed
184150	RAJANALA PRASHANTH	WIPRO	Placed
184167	UPPEY DHANUSHVENKAT	BEL	Placed
184101	ADARI ROHITH	AMDOCS	Placed
184105	ANNADI AJAY REDDY	AMERICAN EXPRESS	Placed
184145	POKURI SAIAKHIL	HONEYWELL	Placed
184169	SAIVENKAT VELAGA	ANSYS	Placed
184134	NAVEEN LABHANA	IOCL	Placed

184117	DARSHANALA RAJKUMAR	SCHLUMBERGER	Placed
184158	SNEHIL KHAJURIA	ORACLE	Placed
184155	SANWAR MAL DHAKER		--
184123	HANUMAN DHAKAR		--
184122	VENKATA MURALI	IOCL	Placed
184120	G SAI MOHAN REDDY	NOT PLACED	--
184109	AYMAN NASIR AHMED SHAIKH	SERVICENOW	Placed
184160	SRIDHAR KHANDAVALLI	MICRON TECHNOLOGY	Placed
184154	SOWMYA REDDY	HIGHER STUDIES	Placed
184139	MORA TEJA	QUALCOMM	Placed
184119	DHULIPALA KAVYA	SAMSUNG R&D	Placed
184151	ROSHINIKAMALA PRIYA	WELLS FARGO	Placed
184131	KASTURI MOUNITHA RAVINDRANATH	VMWARE	Placed
184128	MONIKA KADALI	SAPIENS	Placed
184104	ANIKET SINGH	CUBASTION	Placed
184116	SRIVATHSA DARA	ORACLE	Placed
184112	BIRAL KUMAR PRADHAN	MATH WORKS	Placed
184110	BALATHOTI ENOSHRAJ		--
184146	POTINENI BALA SUJITH	HONEYWELL	Placed
184143	PARIMI JASWANTH	MICROSOFT	Placed
184168	VALLIA PARAMIBIL SARAN	DP WORLD	Placed
184111	HARSHAVARDHAN BANOTHU		--
184115	D NIKHIL		--
184135	M BHANUPRAKASH		--
184127	JITENDRAKUMAR VERMA	HDFC BANK	Placed
184138	MOHAMMAD SAMIR	VISA	Placed
184171	VUPPULA TEJA REDDY	TEXAS INSTRUMENTS	Placed

184126	IMRAN ALI SYED		--
184140	N HEMANTH SRIHARISAI	VMWARE	Placed
184163	TANVI SHEKHAR	SWISS RE	Placed
184137	MIDHESH MAHADEVAN SHANKAR	L&T INFOTECH	Placed
184132	NITHIN KHAMBHAMPATI		--
184166	UDBALE ROHITH	BEL	Placed
184170	VISHAL RANJAN	MICRON TECHNOLOGY	Placed
184157	SIDDAM VINAY	SERVICENOW	Placed
184129	K NEERAJ KUMAR REDDY	SAP LABS	Placed
184161	SUBRAT RAI		--
184113	B PRUDHVIRAJ		--
184149	RAHUL MENON	ORACLE	Placed
184147	PRATEEK SAXENA	CITRIX	Placed
184106	B ASHA VENNY		
184165	T GEETHIKA	ORACLE	Placed
184136	MEDARAMETLA TEJA KOUSHIK		--
184156	SARIKONDA GANESH SAI MANJUNATH		--
184124	HARSH CHOUDHARY	NXP	Placed
184142	NITHIN RAJ NAKKA		--
184164	TATHAGAT SINGH VERMA	SERVICENOW	Placed
184141	N.SREE KEERTHI	QUALCOMM	Placed
184159	SVS SUDHEEP RAO	FLIPKART	Placed
184152	B SAI KRISHNA	IQVIA	Placed
184107	DIWAKAR ASHNALLI		--
184130	KANCHARLA BHARATHCHANDRA		--
184229	KANCHARLA SURYAPADMA	HDFC BANK (ANALYST)	Placed

184214	CHIRUMAMILLA YASWANTH	AMDOCS	Placed
184244	POLEPAKA KAVIRAJ	MS	Placed
184242	PANDUGA SRIVARDHANREDDY	VM WARE	Placed
184256	SHREYA SAHA	MASTERCARD	Placed
184235	MANDAPATI CHARAN	REGOLOGY	Placed
184262	TALAPANENI SAI KISHORE	MICRON	Placed
184228	KAMBALA RAVI KUMAR	AMDOCS	Placed
184220	GANTIMALLA ABHIRAM	JIO	Placed
184252	SAKETH PUVVADA	HFCL TELECOMMUNICATION	Placed
184248	RAJ BHOWMICK	JPMC	Placed
184217	DEEPAK CHAHAL	VM WARE	Placed
184258	SOLAV PRATIK DIPAK	QUALCOMM	Placed
184223	HARISHKUMARSAHU	MASTERCARD	Placed
184207	ASITBANSAL	AMAZON	Placed
184224	HAWPAGE KAMINI GIYANTHI	NOT ALLOWED TO SIT FOR PLACEMENT	Applied for MTech
164226	KANAPARTHI AJAY CHANDRA	MS	Placed
184264	TEJAS BHAT BELLARE	NOVARTIS	Placed
184233	KUNCHAM KAVYA	PREPARING FOR GOVT JOB	Placed
184268	VANNAM MANVITHA	RELIANCE JIO	Placed
184226	JANAPATI VINEELA DEVI	HIGHER STUDIES	Placed
184213	C SAI BHAVANA	MASTERCARD	Placed
184265	THATIPALLY KOUSHIK	UBER	Placed
184203	AMARAGANI SAKETH KUMAR	ORACLE	Placed
184270	VVSAIANIRUDHKAMRAJ(CR)	CIVIL SERVICES	--

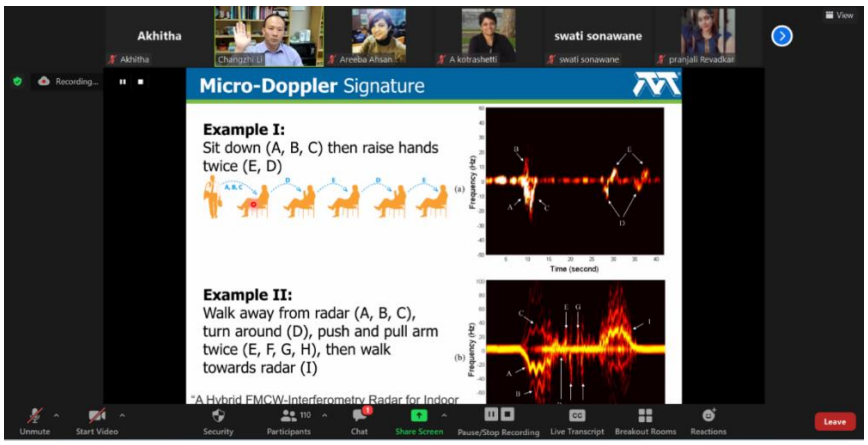
184238	MOPIDEVI VIJAYKUMAR		--
184206	ASHISH MEENA	DPWORLD, IOCL	Placed
184205	ARUN KUMAR		--
184254	SANKET SINGH	JIO	Placed
184208	AVINASH KUMAR	QUALCOMM	Placed
184247	RAHUL GATTU NANDAKUMAR	BLUEYONDER	Placed
184232	SANTOSH REDDY KOGURI	ORACLE	Placed
184246	P ABHILASH	TATA UNISTORE	Placed
184239	N SAI SNEHITH		--
184221	GAURAVKUMAR		--
184219	D BHARGAVI	MANNHATTAN ASSOCIATIONS	Placed
184257	SITANSHU SHUKLA	MICROSOFT	Placed
184255	SAPAVAT KUMAR		--
184212	BUKKE HARIPRASAD NAYAK	HDFC	Placed
184250	RITIKA PALIWAL	QUALCOMM	Placed
184269	V DAKSHAYANI AKHILA	ORACLE	Placed
174244	RATHOD ASHWINI		--
184215	DESHAPAGA SINDHUJA		--
184225	HIMANSHU SHEKHAR DAS	WELLS FARGO	Placed
184251	RUSHIKESH SHENDARE	MICROSOFT	Placed
184249	RAMOJU RAJESHKUMAR	BLACKBUCK	Placed
184260	SRIRAMOJU SHASHANK	ORACLE	Placed
184240	NAKIRIKANTI VAMSHIKRISHNA	BLACKBUCK	Placed
184218	DHARAVATH SINDHURA NAIK		--
184231	K ANUSANDEEP	HONEYWELL	Placed
184216	D V S SRILALITHA	MICRON TECHNOLOGIES	Placed

184241	NIKESH TAKRANI	EXTRA MARKS	Placed
184261	SUDDALA SAI SIDDHARTHA	WELLS FARGO	Placed
184204	ANKITH SURESH	FISCHER JORDAN	Placed
184202	ALISHA VINOD	MASTERCARD	Placed
184227	K V NIMA	OLA	Placed
184237	M SAI AKHIL	SAP LABS	Placed
184259	M SREEMUKH	ORACLE	Placed
184253	S ARAVIND	BLACKBUCK	Placed
184266	UDUTHALA ANUPAMA GOUD		--
184210	BANAVATH LAKSHMIPRASANNA	PWC INDIA	Placed
184263	YASHODA DEVISRI TARRA	DEUTSCHE BANK	Placed
184271	Y POOJITH MANIDEEP	ORACLE	Placed

Department Association/Students Clubs Activities

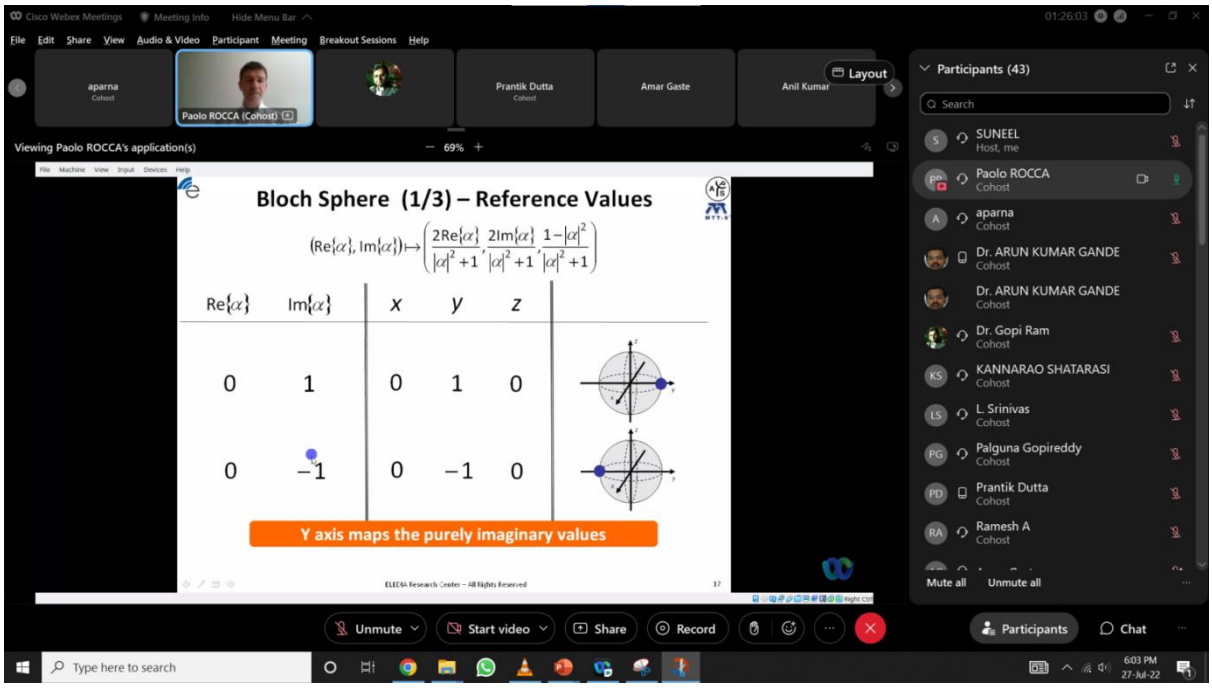
IEEE MTT, IEEE AP, IEEE CAS student branch chapter activities

1. A Distinguished Microwave Lecture on "Portable Radar Systems for life activity sensing, anomaly detection and human tracking," by Prof. Chagzhi Li – 23/03/2022 Online mode. Participants: 90

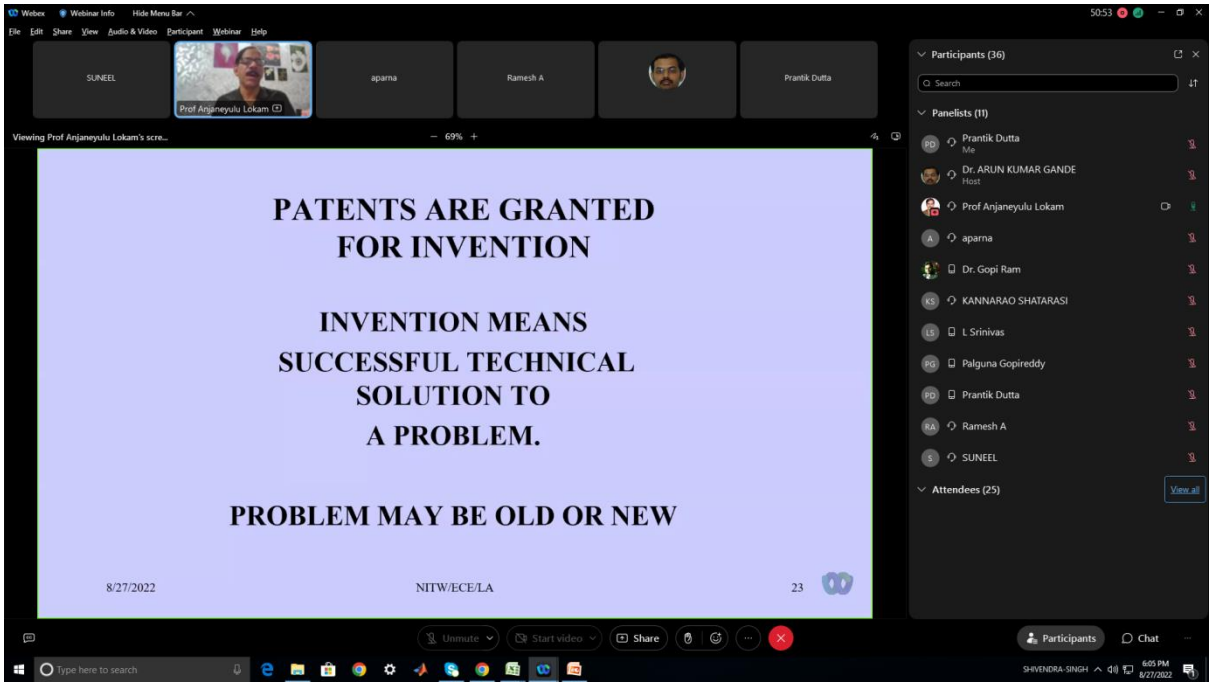


2. A two day workshop on " Research paper writing using LaTeX" by D. Suneel Varma, S. Sreenu, and Prantik Dutta, 16-17th June, 2022, online mode, participants: 60

3. Technical lecture on "Quantum computing as applied to array antenna analysis and synthesis" by Prof. P. Rocca, 27/07/2022, online mode, participants: 46



4. Lecture on "Role of Intellectual property rights in the Academia", by Prof. L. Anjaneyulu, 27/08/2022, online mode, participants: 45



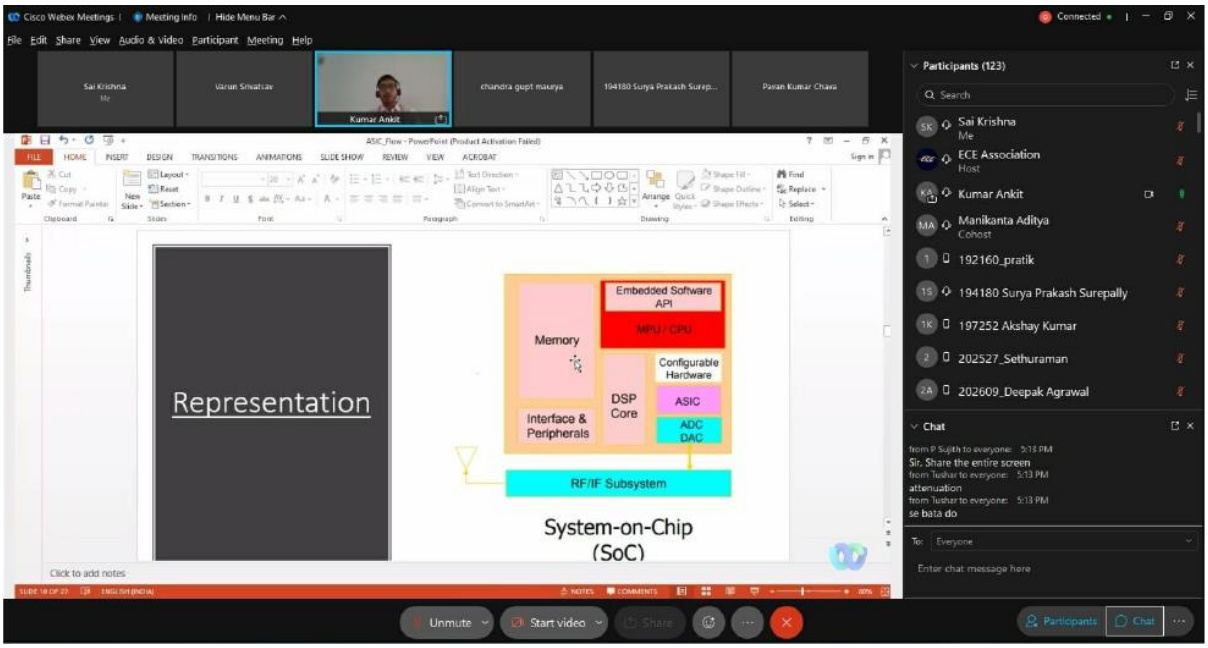
ECE Association activities

Organized "Sophomore Guidance" in online mode on 22/07/2021

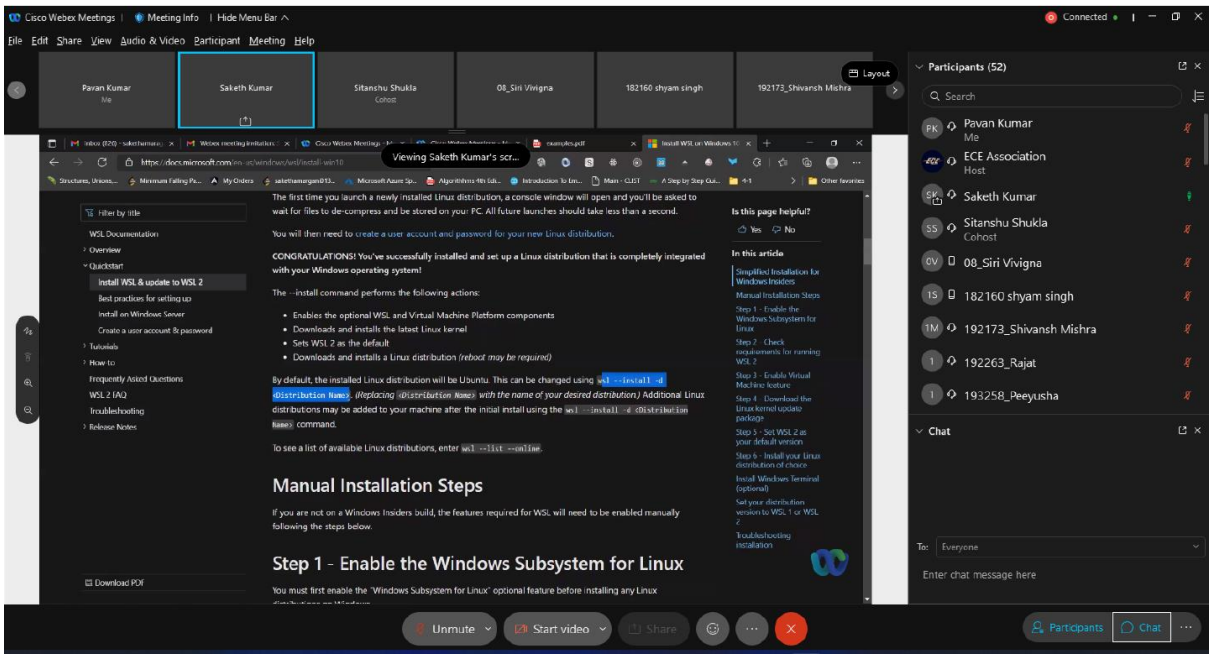
Organized "Codeforces Gym" on 26/08/2021

Organized "Digital Arms Race" on 01/09/2021

Conducted Hardware Weekend on 11-12th September, 2021 on various topics such as AsicDesign Talk, Cadence Virtuoso Workshop, Qfiesta Hardware Quiz, Job Profiles



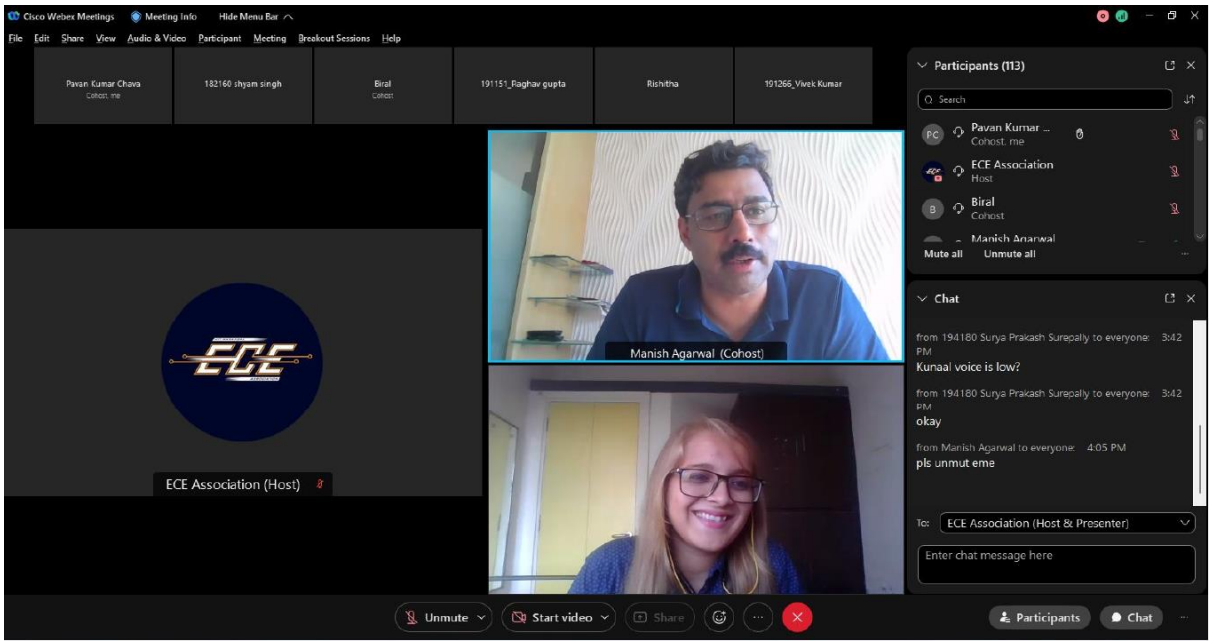
Organized Shell Scripting Workshop on 19/09/2021

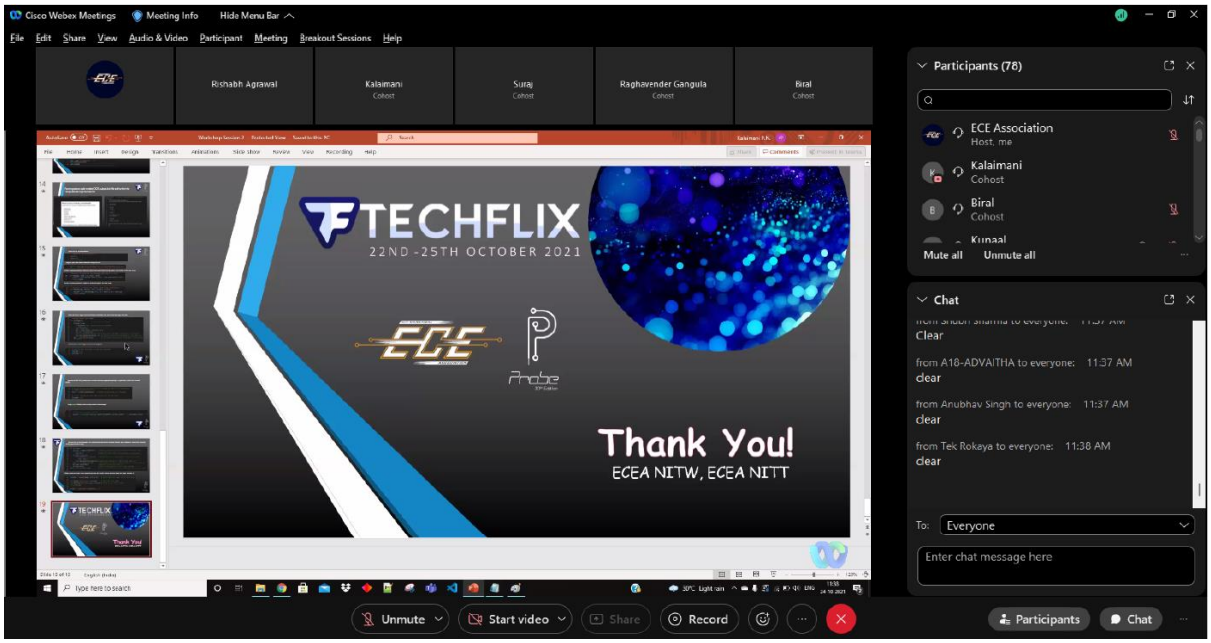


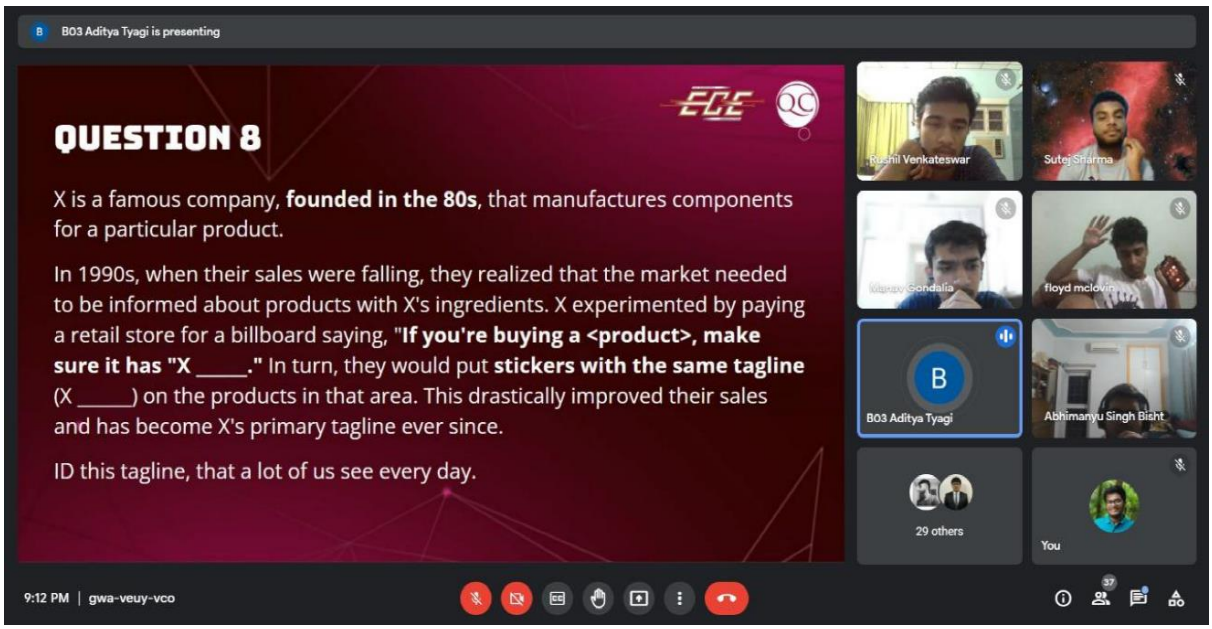
Organized a talk on “All About CAT” on 26/09/2021 in online mode

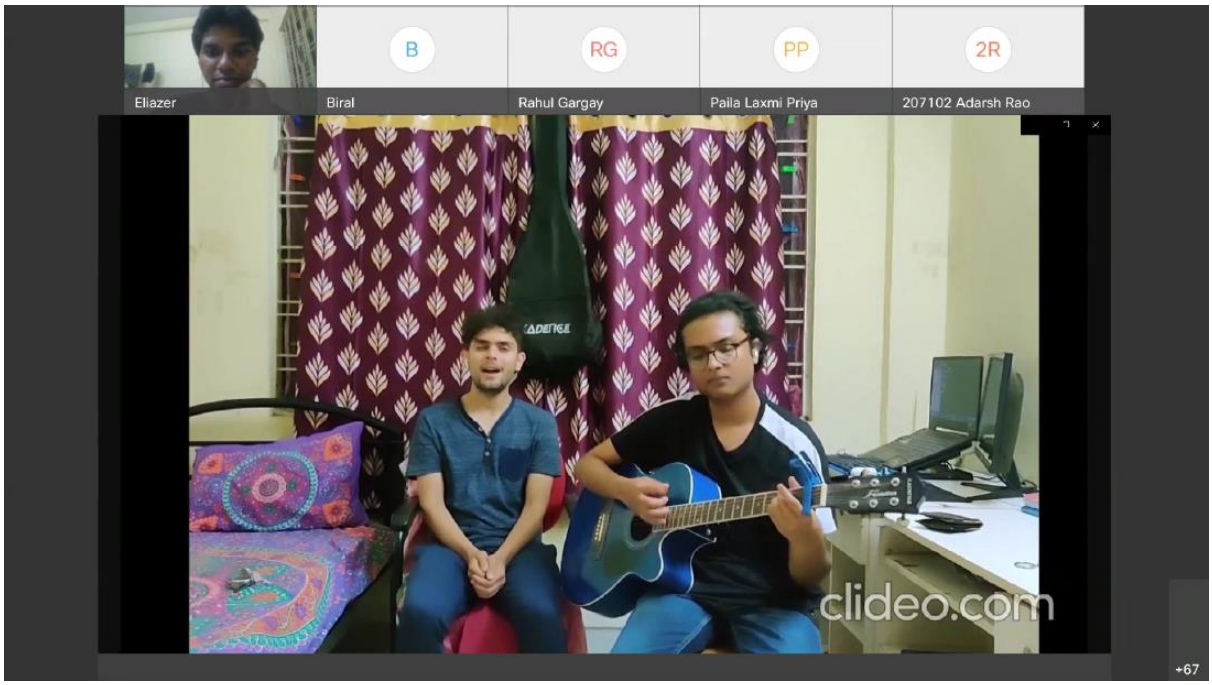
Organized “Battle of Memes” in online mode on 15/10/2021

Organized techno-cultural fest Techflix ’22 during 22-25th September, 2021 and conducted various programs such as Manish Agarwal Guest Talk, Hack the Web, CodeQuest, Computer Vision Workshop, Candid Talks with Biswanath Rath, Newton’s Apple: A Sci-Tech Quiz, Treasure Hunt: Into the Multiverse, Deciphering Crypto, Sandeep Jain Guest Talk, Synergy etc

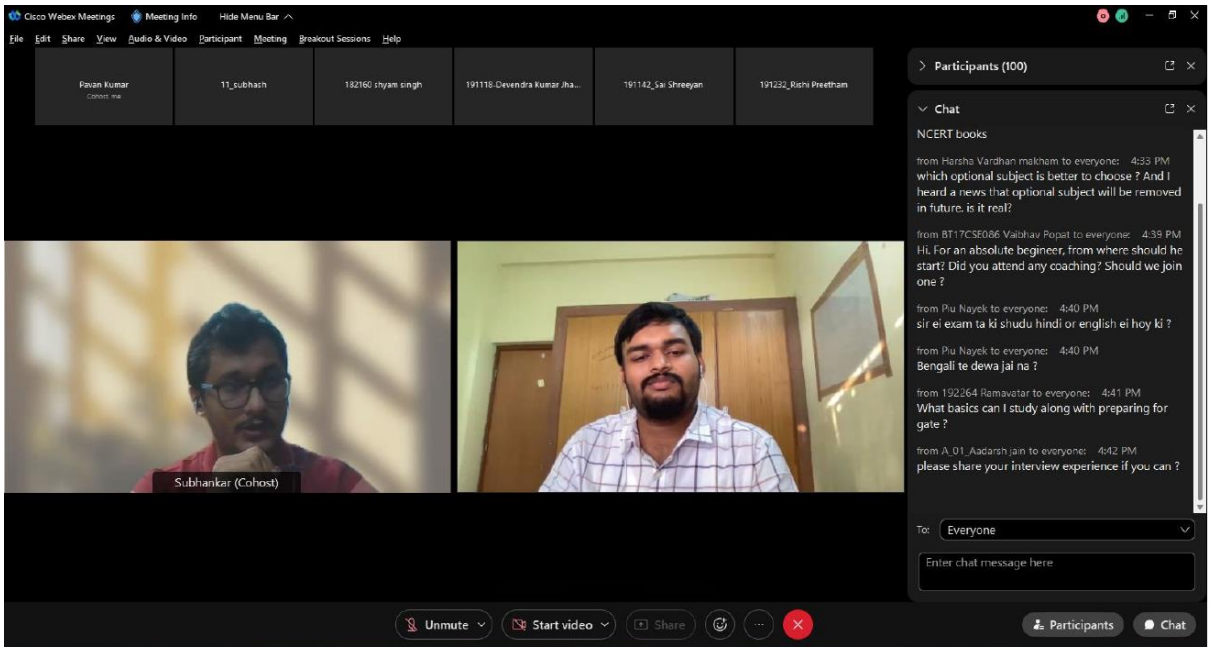

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B03 Aditya Tyagi is presenting
QUESTION 8
X is a famous company, founded in the 80s, that manufactures components for a particular product.
In 1990s, when their sales were falling, they realized that the market needed to be informed about products with X's ingredients. X experimented by paying a retail store for a billboard saying, "If you're buying a <product>, make sure it has "X _____." In turn, they would put stickers with the same tagline (X _____) on the products in that area. This drastically improved their sales and has become X's primary tagline ever since.
ID this tagline, that a lot of us see every day.
Rushil Venkateswar
Sutej Sharma
floyd mclovin
B03 Aditya Tyagi
Abhimanyu Singh Bisht
29 others
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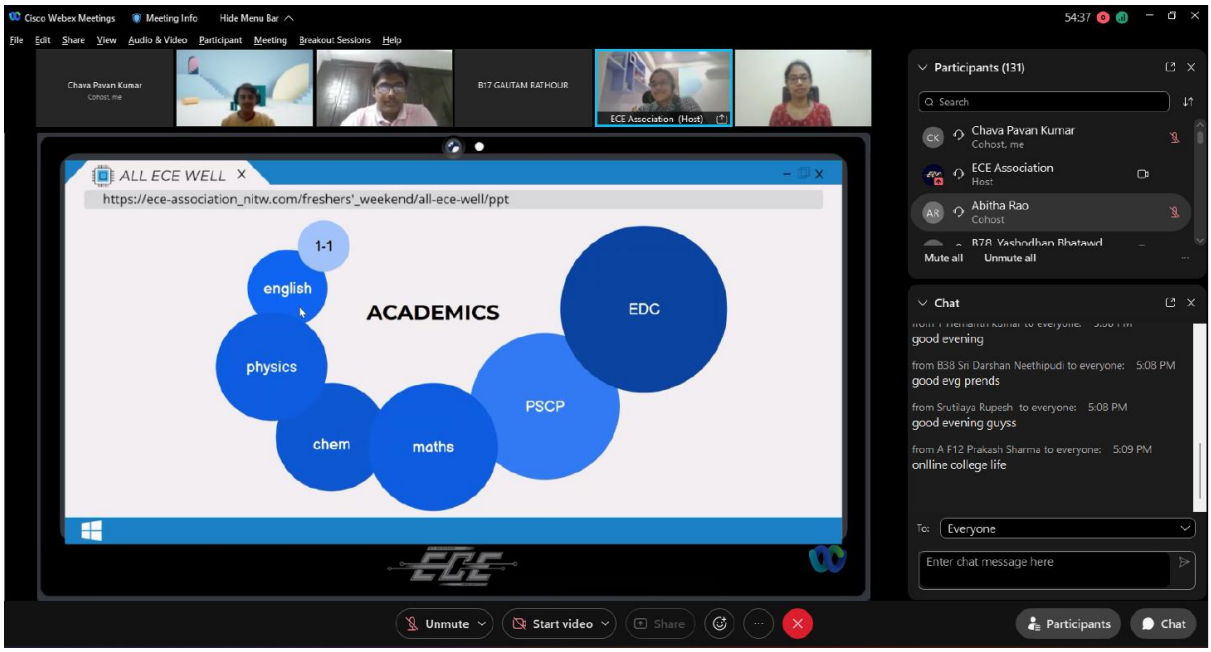
Organized UPSC Talk by Mr. Subhankar Bala, AIR, 79, UPSC CSE 2020



Organized How to Secure your Dream Job in the US in online mode on 02/11/2021

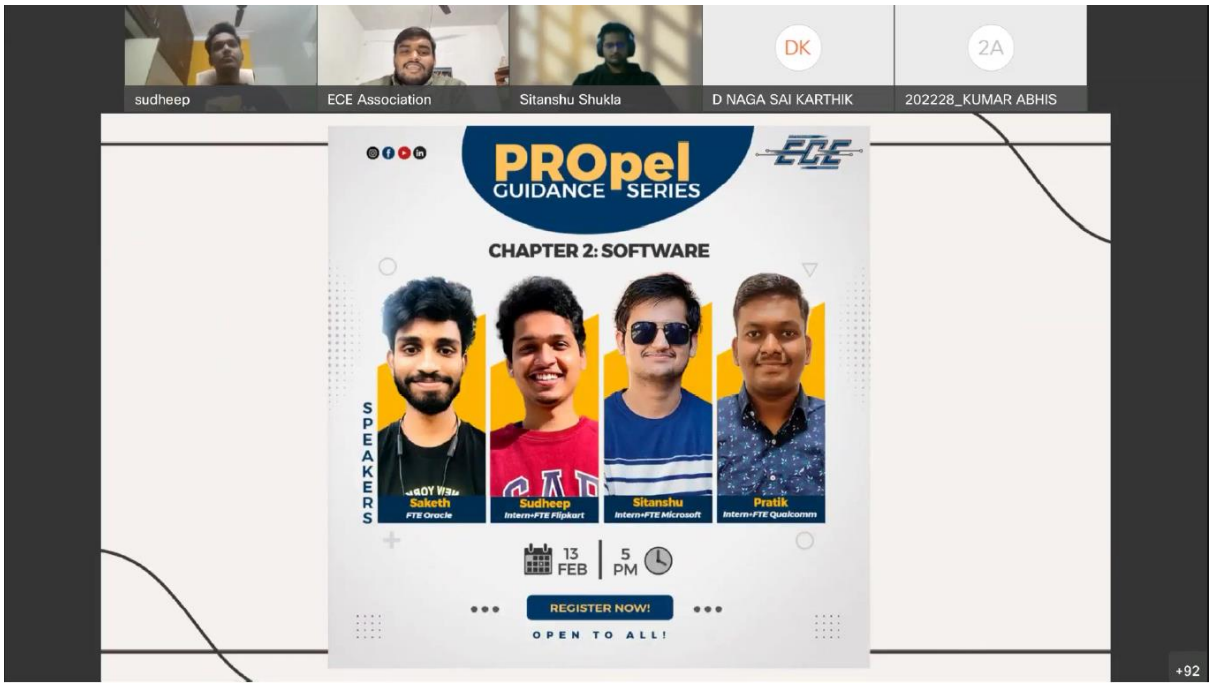
Organized How to Balance Acads and Coding on 20/11/2021

Organized ALL ECE WELL and Freshers' Feud on 8-9th January, 2022 for the fresher's

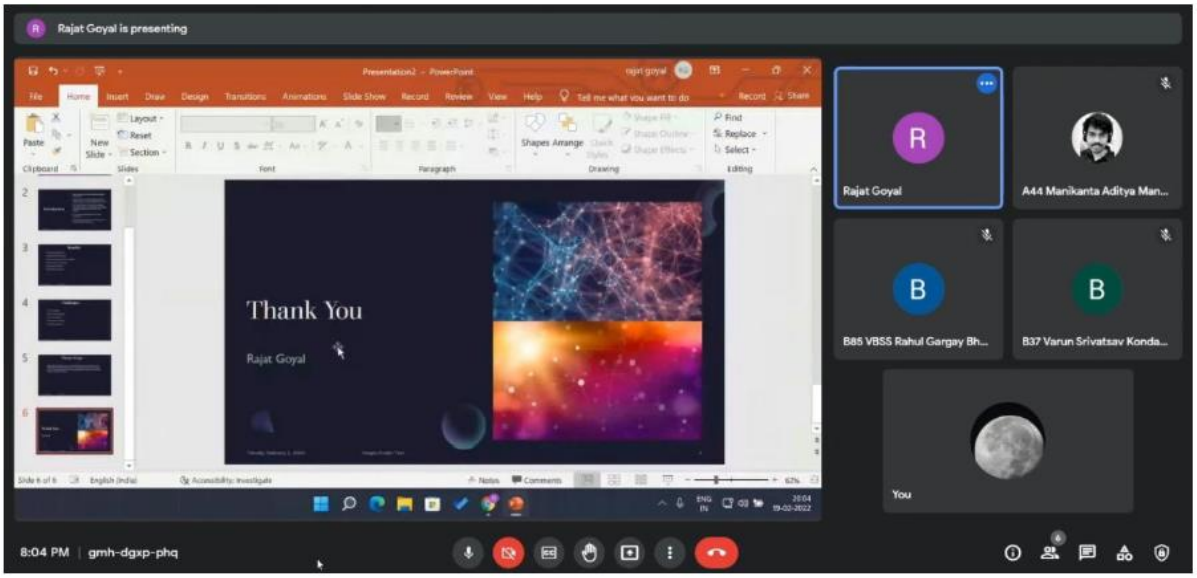


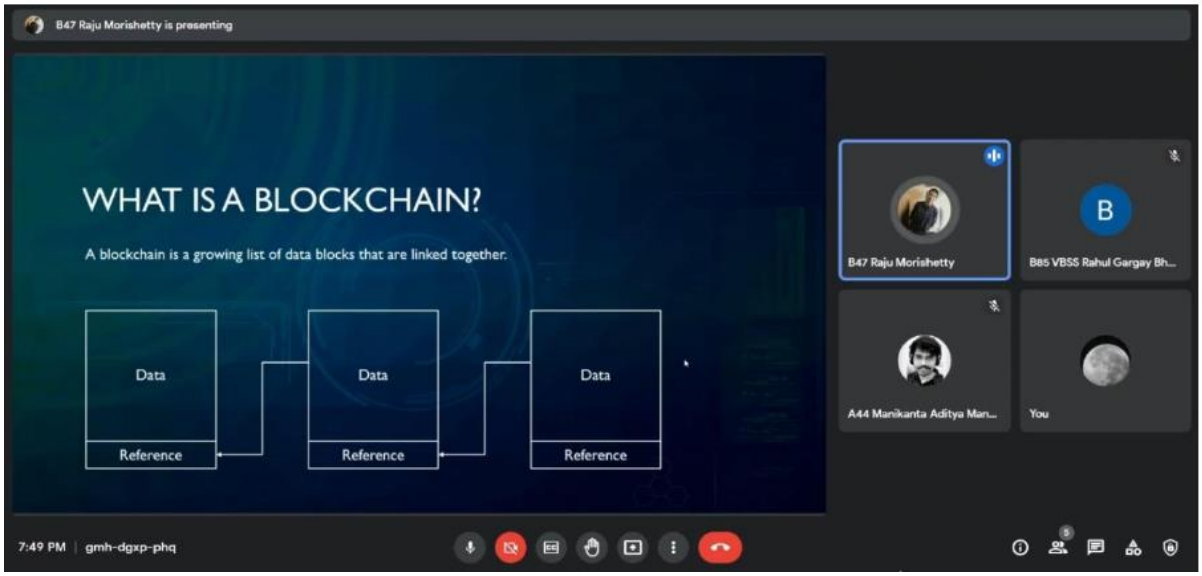
Organized Cognizance Series, Intern Placement Series, HReveals Podcast

Organized PROpel Guidance Series on 12-13th February, 2022 in online mode.



Organized several technical events in Technozion ’22 in online mode such as Shark Tank NITW, Electronova, BizSciTech Quiz, VLSI Webinar, Coding Mania etc.





Organized Apprenticeship, Mock Internship and Placement Drive during 06/02/2022, 15 to 18th April, 2022.

Guest Lectures by Foreign Experts

Prof. Yannis Stylianou, Professor, University of Crete, Greece and Senior Research Scientist at Apple, UK, gave a lecture titled "**Advancements in speech modelling and applications"**, during 06-09th September 2022, in online mode as part of the One week GIAN course.





Prof. Srinivas Katkoori, Professor, University of South Florida, USA gave lectures titled "**Design and implementation of Smart Internet-of-Things (IoT) Systems"**, during 23rd-27th March 2022, in online mode as part of the One-week GIAN course.

Summary (ECE)

S. No.	Activity	Number
1	Publications (Peer Reviewed Journals/ conferences) (SCOPUS/SCI)	131
	International Journals with impact factor	97
	International Journals without impact factor	00
	International Conferences	34
2	Funded Research Projects/SPARC projects (2021-22)	21
	DBT, SERB, DRDO, ISRO (Rs. 267.33 Lakhs)	14
	Ongoing Projects (Rs 103 Lakhs)	07
	Total number of projects ongoing	21
	Total budget	370.33 Lakhs
3	PhD Awarded	12
4	Book Chapters	4
	Book Published	--
5	Patents filed	4
	Patents granted Awarded	4

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 students strength of the department is about 365. In the last academic year, the IV B. Tech students have got placement opportunities in core companies such as Vedanta, Tata Steel Ltd., AMNS, LnT and various software, coaching institutes and finance management companies. The B. Tech placement is 79% and M. Tech students placement improved to 66.7%. Good number of students are going for higher studies in India or foreign countries and also getting opportunities off the campus as well. About 40 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. 3.95 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, GTRE, ARDB, NTPC-NETRA, AUSC, ISRO, and DRDO. From the academic year 2021-2022, in line with the NEP 2020 the Department revised curriculum and is offering new



programs B. Tech Minor in Materials Engineering, B. Tech Honours in Met. & Mat.

Engineering, PG Diploma (Industrial Metallurgy, Materials Technology) and Integrated MTech & PhD along with the old programs (B. Tech in Met. & Mat. Engineering, M. Tech (Industrial Metallurgy), M. Tech (Materials Technology) and PhD).

Department faculty-Group photo



Summary

S. No.	Activity	Number
1	**Publications (Peer Reviewed Journals/ conferences)(SCOPUS/SCI)**	49
	International Journals with impact factor	48
	International Journals without impact factor	01
	International Conferences	06
2	**Funded Research Projects/SPARC projects (2021-22)**	00
	Ongoing Projects (Rs. **3.94** Crores)	07
	Total number of projects ongoing	07
	Total budget	3.94 Crores
3	**PhD Awarded**	11

Faculty Details

S. No.	Name of the Faculty Member and Designation	Highest Qualification	Research Interests	Photograph
1.	Dr. T. Mahesh Kumar Professor & Head of the department	Ph. D	Metal Joining, Additive Manufacturing, High Temperature Materials	
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 Professor	Ph. D	Physical Metallurgy, Texture, Nuclear Materials, Light Metals & Alloys, Corrosion	
5.	Dr.Asit Kumar Khanra Professor	Ph. D	Powder Metallurgy, Processing of Advanced Ceramics, Biomaterials	

6.	Dr. N. Kishore Babu Associate Professor	Ph. D	Metal Joining, Additive manufacturing, nanocomposites	
7.	Dr. Brahma Raju Golla Associate Professor	Ph. D	Ultra High Temperature Ceramics, Advanced Materials Processing, Tribology	
8.	Dr. B. Srinivasa Rao Associate Professor	Ph. D	Process-Microstructure-Property Relationship, Nanocrystalline Materials	
9.	Dr.Ajoy Kumar Pandey Associate Professor	Ph. D	Mechanical Metallurgy, Bio-Ceramics, Powder Metallurgy	
10.	Dr. R. Arockia Kumar Associate Professor	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.SuklaMondol Asst. Professor Grade-II	Ph. D	Alloy development, light alloys, Microstructural characterization, TEM	
16	Dr. Ashwinee Kumar Ad-hoc faculty	Ph.D	Computational Materials Engineerig. Ab initio modelling of water metal interface.	
17	Dr. Naga SruthiNeelam	Ph.D	High Temperature materials, Intermetallics, Ti alloys	

18	Dr. G. RamyaSree	Ph.D	Nanostructured High-Entropy alloys: synthesis and characterization.	

Journal Publications

1. Chitresh Chandra, G.R. Kiranchand, Challa Krishna Teja, B. Srinivasa Rao, M. NaniBabu, N. Narasaiah, Effect of force ratio on creep-fatigue crack growth (CFCG) of P91 steel, J. Mater. Sci., Metals & Corrosion, 2022, 57, 14478–14489. (Scopus) (Impact factor-4.682)
2. Anjali Kanchi, Koteswararao V. Rajulapati, B. Srinivasa Rao, D. Sivaprahasam, Ravi C. Gundakaram, Influence of Thermomechanical processing on microstructure and mechanical properties of MoNbTaW refractory high-entropy alloy, J. of MateriEng and Perform 2022. (Scopus) (Impact factor-2.036)
3. SaijyothiNagireddi, B. Srinivasarao, D. ArvindhaBabu, S.S. Satheesh Kumar, Rajdeep Sarkar, T.K. Nandy, Structural and mechanical properties of Hf55Cu28Ni5Al12 bulk metallic glass alloy prepared at different cooling rates, J. Non-Cryst. Solids, 2022, 580, 121373. (Elsevier) (Impact factor-4.458)
4. Sai Deepak Kumar, Mohammad Fayaz Anwar, E. Vara Prasad, P. BharathSreevatsava, C. Vanitha, Effect of temperature and load during hot impression creep of Cu-Zn-Al alloy, Materials today: proceedings,Vol.39, Part 4, 2021, Pages 1296-1302. (Scopus) (Impact Factor-)
5. Sudarshan Kumar,SrishtiRamteke, ShailajaChelika and C. Vanitha, Creep behaviour of Al-Si-Mg alloy by hot impression creep test, Materials today: proceedings,41(2021) 1207-1211. (Scopus) (Impact Factor-)
6. PremkumarManda,AntimRewapati,C. Vanitha&A.K. Singh, Structure - Property - processing correlations in metastable beta titanium alloys Ti-10V-2Fe-3Al and Ti-5Al-5Mo-5V-3Cr, Advances in Materials and Processing Technologies,1-36,2021. (Scopus) (Impact Factor-2.37)
7. P. Bharath, E. Vara Prasad, Sai Deepak Kumar, Mohammad Fayaz Anwar, Sreevatsava, V.Rama Rao, C. Vanitha, Effects of temperature and load during hot impression behaviour of Cr-Ni stainless steel, Metallurgical and Materials Engineering,Vol 27 (4) 2021 p. 531-539. (Scopus) (Impact Factor-0.67)
8. Vadapally Rama Rao, Deepak K. Pattanayak, C. Vanitha, Hot impression creep behavior of AlSi10Mg alloy fabricated through SLM route, Transactions of the Indian Institute of Metals,1-7. (Scopus) (Impact Factor-1.499)
9. Manda Premkumar , Quamar MD Jawed, C. Vanitha, Singh Ashok, Structure, Processing, Property Correlation of Metastable β Titanium Ti-5Al-5Mo-5V-3Cr alloy, Part-E: Journal of process Mechanical Engineering,1-36. (Scopus) (Impact Factor-1.606)
10. Manoj Velishala, Mahesh Pandiripalli , vanitha chilamban, Investigation on Corrosion and Wear Properties of Al-7075/TiC Composites Fabricated by Stir Casting Route,

Metallurgical and Materials Engineering, https://doi.org/10.30544/816 (Scopus) (Impact Factor-0.67)
11. Aayesha Mishra, LakshminarayanaKompella, Lalit Mohan Sanagavarapu, SreedeviVaram, Ensemble-based machine learning models for phase prediction in high entropy alloys, Computational Materials Science, 2022, 210, 111025. (SCI) (Impact factor-3.572)
12. Mahammad Ali Shaik, Brahma Raju Gollaand ShivakumarKhaple, Effect of powder processing and alloying additions (Al/ZrB2) on the microstructure, mechanical and electrical properties of Cu, Advanced Powder Technology 32 3314-3323, 2021. (SCI) (Impact factor-4.969)
13. GeethasreeKommineni, Brahma Raju Golla, ZafirAlam, V.V. Satya Prasad, Mechanical and high temperature oxidation response of Nb-18.7Si-5Ti-5Zr alloy, Materials Chemistry and Physics 290 126615, 2022. (SCI) (Impact Factor-4.778)
14. Sravan Kumar Thimmappa, Brahma Raju Gollaand Bhanu Prasad V.V., Processing and oxidation behavior of silicon-based ceramics reinforced diboride UHTCs: A Review, Silicon (in Press), 2022. (Scopus) (Impact factor- 2.941)
15. Mahammad Ali Shaik, Brahma Raju Golla, Microstructure, mechanical and wear property correlation of Al bronze alloys, Powder Metallurgy AHEAD-OF-PRINT, 1-10, 2022. (Scopus) (Impact Factor-2.228)
16. V Raju and Asit Kumar Khanra, Microstructural and mechanical properties of Al2O3 and ZTA foams prepared by thermo-foaming technique, Ceramics International, 47 (2021) 29881–29887. (Elsevier) (Impact Factor-5.532)
17. ShaikMubina, P SudharshanPhani, Asit Kumar Khanra&Bhaskar Prasad Saha, A nanoindentation based study to evaluate the effect of carbon nanofibers on the mechanical properties of SiC composites, Composite Interfaces, 28 (2021) 363–380. (Elsevier) (Impact Factor-2.952)
18. ShaikMubina, M. Ilaiyaraja, Asit Kumar Khanra&Bhaskar Prasad Saha, Fabrication and microstructure analysis of continuous C fibers reinforced SiC-Cnfs hybrid composite tubes, Materials and Manufacturing Processes, 36 (2021) 292–300. (Esiever) (Impact Factor-4.616)
19. ObulapathiEggidi and Ajoy Kumar Pandey, Effect of two-step sintering on microstructure and mechanical properties of ceria-stabilized zirconia-toughened alumina-added titania (CSZTA–TiO2), International Journal of Applied Ceramic Technology, 2022;1–12 (Scopus) (Impact Factor-1.968)
20. Y. Venkat, K.R. Choudary, D. Chatterjee, D.K. Das, A.K. Pandey, Sarabjit Singh, Development of mullite-alumina ceramic shells for precision investment casting of single-crystal high-pressure turbine blades, Ceramics International, 48 (2022) 28199-28206. (Elsevier) (Impact Factor-5.532)
21. Harish Kumar Adigilli, K. Murugan, P.V.V. Srinivas, D. NazeerBasha, AnirudhaKarati, A. K. Pandey, JoydipJoardar, Spark plasma sintering behavior and structural stability of 2D- WS2 nanosheets, Ceramics International, 48 (2022) 25151–25158. (Elsevier) (Impact Factor-5.532)
22. ObulapathiEggidi, Shiva Bejugama and Ajoy Kumar Pandey,

Effect of TiO2 addition on densification, microstructure, and mechanical properties of CSZTA, Journal of Alloys and Compounds, 889:2022, 163199. (Elsevier) (Impact Factor-6.371)

23. Sudhakar A.N., Markandeya R, Srinivasa Rao B, Pandey Ajoy Kumar and Kaushik D, Effect of alloying elements on the microstructure and mechanical properties of high chromium white cast iron and Ni-Hard iron, Materialstoday Proceedings, 61 (2022) 1006-1014.(Impact Factor-)
24. A.N. Sudhakar, R. Markandeya, B. Srinivasa Rao, Ajoy Kumar Pandey and D. Kaushik, Effect of alloying elements on the dry sliding wear behavior of high chromium white cast iron and Ni-hard iron, Materialstoday Proceedings, 60 (2022) 1303–1309. (Impact Factor-)
25. Venkat, K. RamaswamyChoudary, D K Das, A. K. Pandey and S Singh, Alumina-zircon filler based ceramic shell moulds for directionally solidified cast shrouded low pressure turbine blades, Ceramics International, 47(19):2021, 27395-27405. (Elsevier) (Impact Factor-5.532)
26. Harish KumarAdigilli, Yixuan Hu, RajamalluKarre, P.V.V. Srinivas, K. Guruvidyathri, AnirudhaKarati, V.S. Hariharan, P. Suresh Babu, KolanMadhav Reddy, A.K. Pandey, JoydipJoardar, First report on in-situ Al-W-Cu grain boundary phase formation during spark plasma sintering of two-dimensional-WS2 reinforced Al-4Cu alloy composites, Journal of Alloys and Compounds, 883 :2021, 160792. (Elsevier) (Impact Factor-6.371)
27. Shiva Bejugama, ShibuChameettachal, FalguniPati, Ajoy Kumar Pandey, Tribology and in-vitro biological characterization of samaria doped ceria stabilized zirconia ceramics, Ceramics International 47(12): 2021, 17580–17588.(Elsevier) (Impact Factor-5.532)
28. Y.Venkat, K.R.Choudary, D.K.Das,A.K.Pandey, Sarabjit Singh, Ceramic shell moulds for investment casting of low-pressure turbine rotor blisk, Ceramics International, 47(4): 2021, 5663-5670. (Elsevier) (Impact Factor-5.532)
29. Shiva Bejugama, ShibuChameettachal, FalguniPati, and Ajoy Kumar Pandey, In vitro cellular response and hydrothermal aging of two-step sintered Nb2O5 doped ceria stabilized zirconia ceramics, Ceramics International. 47(2): 2021, 1594-1601.(Elsevier) (Impact Factor-5.532)
30. Naga SruthiNeelam, S. Banumathy, C.M.Omprakash, D.V.V.Satyanarayan, A. Bhattacharjee, G.V.S. Nageswara Rao, Compression and creep behaviour of Ti-46.5 Al-xNb-yCr-zMo-0.3 B (x= 3.5, 5; y, z= 0, 1, 2) alloys, Materials Science and Engineering: A 839 (2022). (Esevier) (Impact Factor-6.04).
31. P. Anil Kumar, J. Vanaja, G.V. Prasad Reddy, G.V.S. Nageswara Rao, On the improvement of tensile properties of thermo-mechanically treated India specific reduced activation ferritic-martensitic steel, Materials Science & Engineering A 843 (2022) 143098. (Esevier) (Impact Factor-6.04).
32. G. V. S. Nageswara Rao, P. Anil Kumar, R. Kannan, A. Nagesha, Influence of Temperature and Strain Amplitude on Low Cycle Fatigue and Creep–Fatigue Interaction Behaviour of Alloy 617 M, Transactions of the Indian National Academy of Engineering (Elsevier) (Impact Factor-1.197)

33. S. Mondol, U. Bansal, M.P. Sing, S. Dixit, A. Mandal, A. Paul, and K. Chattopadhyay, Microstructure-strength correlations in Al-Si-Cu alloys micro-alloyed with Zr, Materialia, 23 (2022) 102449. (Elsevier)
34. S. Mondol, U. Bansal, P. Dhanaxmi, S. K. Makineni, A. Mandal and K. Chattopadhyay, Enhancement of high temperature strength of Al-Cu alloys by minor alloying and hot working process, Journal of alloys and compounds, 166136 (2022). (Elsevier) (Imapct Factor-6.371)
35. U. Bansal, M.P. Sing, S. Mondol, S.K. Sinha, S. K. Makineni, A. Paul, and K. Chattopadhyay, The interplay of precipitation of ordered compounds and interfacial segregation in Al-Cu-Hf-Si alloys for high-temperature strength, ActaMateriala, 2022. (Elsevier) (Impact Factor-9.201).
36. Kishore Babu, N., Talari, M. K., Srirangam, P., AlFaify, A. Y., &Rehman, A. U., Characterization of Microstructure, Weld Heat Input, and Mechanical Properties of Mg–Al–Zn Alloy GTA Weldments, Applied Sciences, 2022, 12(9), 4417. (Scopus) (Impact Fator-2.838)
37. Rehman, A. U., Kishore Babu, N., Talari, M. K., Usmani, Y., &Alkhalefah, H., Characterisation of Microstructure and Mechanical Properties of Linear Friction Welded α+ β Titanium Alloy to Nitinol, Applied Sciences, 2021, 11(22), 10680.(Scopus) (Impact Fator-2.838)
38. Rehman, A. U., Kishore Babu, N., Talari, M. K., Anwar, S., Usmani, Y., & Al-Samhan, A. M., Dissimilar Rotary Friction Welding of Inconel 718 to F22 Using Inconel 625 Interlayer, Applied Sciences, 2021, 11(22), 10684.(Scopus) (Impact Fator-2.838)
39. Rehman, A. U., Kishore Babu, N, Talari, M. K., Usmani, Y. S., & Al-Khalefah, H., Microstructure and Mechanical Property Correlation between Friction Welded Nitinol-Nitinol Joints, Frontiers in Materials, 2021, 8, 362.(Scopus) (Impact Fator-3.985)
40. Ajay, V., Kishore Babu, N., Ashfaq, M., Kumar, T. M., & Krishna, K. V., A Review on Rotary and Linear Friction Welding of Inconel Alloys, Transactions of the Indian Institute of Metals, 2021, 74(11), 2583-2598.(Scopus) (Impact Fator-1.499)
41. Rehman, A.U.; Kishore Babu, N.;Talari, M.K.; Usmani, Y.S.;Al-Khalefah, H., Microstructure and Mechanical Properties of Dissimilar Friction Welding Ti-6Al-4V Alloy to Nitinol., Metals 2021, 11, 109.(Scopus) (Impact Fator-2.695)
42. MV Naik, N Narasaiah, P Chakravarthy, RA Kumar, Hot-extrusion behavior of biodegradable Zn-Mg alloys, Materials Today: Proceedings 56, 1432-1439. (scopus)
43. KV Reddy, RB Naik, GM Reddy, C Pammi, RA Kumar, Damping Property of AA6061/SiCp Surface Composites Developed through Friction Stir Processing, Journal of Materials Engineering and Performance 31 (1), 75-81. (Esevier) (Impact Factor-1.819)
44. KV Reddy, RB Naik, GM Reddy, P Chakravarthy, S Janakiram, RA Kumar, Damping capacity of aluminium surface layers developed through friction stir processing, Materials Letters 298, 130031. (Elsevier) (Impact Factor-3.423).
45. G Prabhu, RA Kumar, TK Nandy, Tungsten Heavy Alloys with Two-phase Matrix, Defence Science Journal 71 (4), 2021. (Scopus) (Impact Factor-0.73).
46. RB Naik, KV Reddy, GM Reddy, RA Kumar, Microstructure, mechanical

and wear properties of friction stir processed Cu-1.0% Cr alloys, Fusion Engineering and Design 164, 112202. (Elsevier) (Impact Factor-1.453)

47. B Bhav Singh, G Sukumar, Ashish Paman, G Balaji, K Siva Kumar, V Madhu, R Arockia Kumar, A 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 (1), 60-80. (Elsevier) (Impact Factor-1.488)
48. BB Singh, G Sukumar, K Sivakumar, V Madhu, RA Kumar, A comparative study on the ballistic performance of high nitrogen steel and rolled homogeneous armour steel against 7.62 mm ball and 12.7 mm armour piercing projectiles, Materials Today: Proceedings 41, 1188-1194. 2021. (Scopus) (Impact Factor-)
49. R VeeraBabu, Jean Maria Fernandes, M Kovendhan, NandarapuPurushothamreddy, ReddivariMuniramaiah, R Arockiakumar, NS Karthiselva, D Paul Joseph, Investigation of structural, optical, electrical and mechanical properties of transparent conducting 'Ag'electrodes, Physica B: Condensed Matter 607, 412690, 2021. (Scopus) (Impact Factor-2.988)

Conference presentations

1. Y. Poorna Chandra Rao, Abhyuday Patel Kolupula, SreedeviVaram, Effect of CNT on the mechanical behaviour of Al-Bi-CNT nanocomposites, International Conference on Powder Metallurgy (PM-22) 18-20 April 2022. (Oral Presentation)
2. Abhyuday Patel Kolupula, Vadali V S SSrikanth, SreedeviVaram, Hydrogen generation by hydrolysis of Aluminium scrap-based composites processed by mechanical milling in organic medium, International Conference on Powder Metallurgy (PM-22) 18-20 April 2022. (Oral Presentation)
3. Abhyuday Patel Kolupula, Vadali V S SSrikanth, SreedeviVaram, Hydrogen generation by hydrolysis of aluminium-based alloys/composites, International Conference on Advanced Materials Manufacturing for Sustainable Future, IIM ATM 2021, 13 Nov 2021. (Oral Presentation).
4. Mohammed Rafi, Vadali V S SSrikanth, SreedeviVaram, Al-Bi-Graphene-CNT Composites for Rapid H2 Generation through Water Splitting, International Conference on Advanced Materials Manufacturing for Sustainable Future, IIM ATM 2021, 13 Nov 2021. (Oral Presentation).
5. Mohammed Rafi, Abhyuday Patel Kolupula, Vadali V S SSrikanth, SreedeviVaram, An Overview on Hydrogen Generation by Hydrolysis of Aluminium and its alloys with the Addition of Carbon-based Materials, International Conference on Energy & Advanced Materials, ICEAM 2021, 21-23 Oct 2021, Jaypee Institute of Information Technology, Noida, India. (Oral Presentation).
6. SanthiBattu and Uma Maheswara Rao Seelam, Synthesis of bulk Cu50Fe50 (at.%) alloys by spark plasma sintering, International Conference on Women in Learning and Leadership, IcWiLL 2022, 9 Mar 2022,NIT Warangal (Online), India. (Oral Presentation)

Funded Research Projects (Grant worth- Rs. 3.94 Crores)

New Projects Sanctioned

1. Dr. Ajoy Kumar Pandey, Dr. N. Narasaiah and Dr. B. Srinviasa Rao (Department of MME) have received a project on 'Exploratory studies on effect of fatigue and hold time on crack growth behavior of GTM Ti-64 alloy', from Gas Turbine Research Establishment (GTRE), Bangalore, worth of Rs. 90.56 Lakhs. (GTRE/MMG/BMR1/1218/21/CARS/A /21), dated 10.03.2022.
2. Dr. Nagamuthu Kishore Babu, Teachers Associateship for Research Excellence (TARE) SERB, File No. TAR/2021/000325 Date: 01-Feb-2022, worth of Rs. 18.30 Lakhs.
3. Dr. Asit Kumar Khanra, Development of Al-Ni-RE Alloys for High Temperature and Tribological Applications (India-Slovenia Bilateral Scientific and Technological Cooperation – Nov-2021) worth of Rs. 21.0 Lakhs.
4. Dr. R. Arockia Kumar, Development of novel bioresorbable zinc alloys for bioimplant applications (India-Slovenia Bilateral Scientific and Technological Cooperation – Nov-2021) worth of Rs. 14.0 Lakhs.

Ongoing

- 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, Rs. 48.24 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.
- 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. N. Narasaiah, Dr. G. V. S Nageswara Rao, Dr. C. Vanitha, Dr. Ajoy Kumar Pandey, Dr. G. Brahma Raju, Dr. B. Srinviasa Rao, Oxide dispersion strengthened (ODS) iron-based alloys for Advanced Utra Super Critical (AUSC) Technology, DST, TMD/CER/CleanCoal/2017/036 (ARCI) (C) and (G) dated 24-08-2018, Rs. 90.812 Lakhs

S. No.	Title	Total Amount sanctioned	Funding agency and Project No.	Installment 1, 2019-2020	Installment 2, 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	Teachers Associateship for Research Excellence (TARE), SERB	18.30 Lakhs	File No. TAR/2021/000325 Date: 01-Feb-2022 ,	----------	----------
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.3.12 Lakhs	Rs.2.2 Lakhs
7	Exploratory studies on effect of fatigue and hold time on crack growth behavior of GTM Ti-64 alloy	90.56 Lakhs	GTR E/MMG/BMR 1/1218/21/ CARS/A/21, dated 10.03.2022	----------	----------

Completed Consultancy Projects

1. **Prof. N. Narasaiah, Dr. Ajoy Kumar Pandey, Dr. R. Arockia Kumar, Dr. B. Srinivasa Rao**, Wear Life enhancement study of coal pulverizer grinding media (Z019X00004, dated 30/12/2019) (BHEL, Hyderabad) worth of **Rs. 3.5 Lakhs**.

Invited talks delivered

1. Dr. V. Sreedevi has delivered a guest lecture for the Six-Days Online FDP on Research Applications in Artificial Intelligence and Machine Learning for Mechanical Engineers at SRMIST, Tamilnadu on 'Machine Learning for New Materials Design' on 10th August, 2022.
2. Dr. R. Arockia Kumar has delivered an online guest lecture for the 7-days active learning on Advances in Materials Joining and Additive Manufacturing at IIT Indore, on 'Friction Stir Processing- A tool for developing functional materials' on 23rd August, 2022.
3. Dr. Uma Maheswara Rao Seelam has delivered a guest lecture at E&ICT Academy, NIT Warangal on 'Microstructural Characterization of Nanomaterials' on 21st July, 2022.
4. Dr. Uma Maheswara Rao Seelam has delivered an online guest lecture in the Worldwide Webinar organized by LabIndia® Instruments on 'Fundamentals of Imaging in SEM' on 30th May, 2022
5. Dr. Uma Maheswara Rao Seelam has delivered a guest lecture at STUTI-21 DST, NIT Warangal on 'SEM Imaging and Spectroscopy' on 30th May, 2022.
6. Dr. Uma Maheswara Rao Seelam has delivered a guest lecture at STUTI-21 DST, NIT Warangal, on 'Scanning Electron Microscopy & EDS Spectroscopy' on 30th May, 2022.
7. Dr. SuklaMondol has delivered an online guest lecture for the Six Days Online Short-Term Course on "Advances in materials processing and characterization on 'Basics of TEM Imaging and Sample preparation' on 17th May, 2022.
8. Prof. C.Vanitha has delivered a guest lecture at DR N G P Institute of Technology, Coimbatore on 'Metallurgy for Mechanical Engineers' on 6th April, 2022.
9. Prof. G. V. S. Nageswara Rao has delivered a guest lecture at MepcoSchlenk Engineering College (Autonomous), Sivakasi, Tamil Nadu on 'Research Aspects on Thermal

Barrier Coatings' on 7th December, 2021.

10. Dr. R. Arockia Kumar has delivered an online guest lecture during Innovations in Manufacturing of Novel Materials and Composites (ATAL FDP held in Christian College of Engineering and Technology)', on the topic of 'Friction stir processing-a tool to develop functional materials' on 23rd November, 2021.
11. N. Kishore Babu has delivered a guest lecture at IGCAR Kalpakam during the National Seminar on 'Welding Science and Technology - Present Status & Future Direction ' Welding Science and Technology - Present Status & Future Direction ' NSWEST-2021, on 'Development and joining of AlMg5-Al2O3 nanocomposites fabricated by powder metallurgy route' on 23rd July, 2021.

PhD Research guidance

1. Tejassvi Pakki (Roll No. 701363) completed her Ph.D with the title of "Investigation on Electrospun nanofiber based electrodes for Li-S battery application" under the guidance of Dr. Tata N. Rao and Dr. B. Srinivasa Rao in August, 2022
2. K. Geethasree (Roll Number. 701628) completed her Ph.D with the title of "Effect of Ti and Zr alloying additions on the microstructure, mechanical properties and oxidation behaviour of Nb-18.7Si alloy" under the guidance of Dr. G. Brahma Raju and Dr. V.V. Satya Prasad in September, 2021.
3. T. Sravan Kumar (Roll No. 716153) completed his Ph.D with the title of "Development of ZrB2-SiC-Si3N4/Ta ceramic composites for high temperature applications" under the guidance of Dr. G. Brahma Raju and Dr. V.V. Bhanu Prasad in November, 2021.
4. Katty Bharath (Roll No. 716037) completed his Ph.D with the title of "Microstructure and mechanical properties evaluation of Al-Cu-Mg alloys produced by powder metallurgy (P/M) and hot extrusion techniques" under the guidance of Dr. Asit Kumar Khanra and Dr. M. J. Davidson in October, 2021.
5. Vemoori Raju (Roll No. 716036) completed his Ph.D with title of Development and Properties Evaluation of Al2O3 and ZTA Porous Ceramics Produced by different Techniques" under the guidance of

Dr. Asit Kumar Khanra and Dr. Roy Johnson in November, 2021.

6. Adigilli Harish Kumar (Roll No. 716156) completed his Ph.D with the title of Development of 2D-WS2 reinforced Al-4Cu alloy matrix composites: under the guidance of Dr. Ajoy Kumar Pandeyand Dr. JoydipJoardar on July, 2022.
7. Venkat (Roll No.716034) completed his Ph,D with the title of :Development of Ceramic Shell Moulds for Investment Casting of Gas Turbine Components" under the guidance of Dr. Ajoy Kumar Pandey and Dr. Sarabjit Singh in June, 2022.
8. Bejugama Shiva (Roll No.716035) completed his Ph.D with title of "Development of ZrO2-CeO2-Nb2O5 and ZrO2-CeO2-Sm2O3 ceramics for biomedical applications" under the guidance of Dr. Ajoy Kumar Pandey on May, 2021.
9. K Venkateswara Reddy (Roll No. 714140) completed his Ph.D with title of "Development of high vibration damping layers through friction stir processing" under the guidance of R. Arockia Kumar on January, 2022.
10. Ms. Yarlagadda Madhavi (Roll No.716154) completed her Ph.D with title of "High cycle plain-fatigue and corrosion-fatigue behavior of micro arc oxidation coated aluminum alloys" under the guidance of Prof. N.Narasaiah on September, 2021.
11. Mr. Balaji Padya (Roll No. 701625) completed his Ph.D with title of "Development and Characterization of Functional Nanocomposites for Thermal and Capacitive Energy Storage Applications" under the guidance of Prof. N.Narasaiah on August, 2021.

Awards, Outreach Activities, Achievements and Distinctions of Faculty members

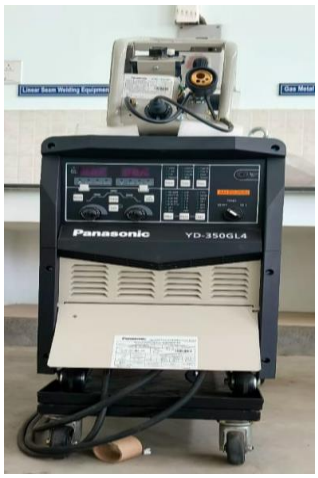
1. Prof. C.Vanitha has been awarded INAE fellowship (2021-22).
2. Dr. G. Brahma Raju has awarded thereviewer appreciation certificate from IIM (May 2021, February 2022)
3. Dr. G. Brahma Raju invited to be Editorial Board Member of Green Buildings and Materials
4. Prof. Mahesh Kumar Talari has been awarded the reviewer appreciation certificate from IIM

New Lab Equipments/software/Workstations Installed

1. Purchases & Installed Glove box to maintain argon atmosphere.
2. Purchased &installed Upright Metallurgical Microscope (Quasmo make & QX4RT model) in Physical metallurgy lab to investigate the microstructure of materials.
3. Purchased the Chipset (SEM computer part) of Tescan brand.
4. Established 'welding Lab' with the instruments of Shielded metal arc welding (SMAW) , Gas metal arc welding (GMAW), Gas Tungsten arc welding (GMAW), Abrasive cutting machine, Sub merged arc welding (SAW) and Varestraint testing equipment (Photographs are included below).



Shielded metal arc welding (SMAW)



Gas metal arc welding (GMAW)



Gas Tungsten arc welding (GMAW)



Abrasive cutting machine



Sub merged arc welding (SAW)



Argon arc melting equipment



Varestraint testing equipment

Best student papers and other achievements

S.No	Name	Achievement Details	Date
01	Mr. Vadapally Rama Rao	best paper presentation award ICMAT 2022	June 10-11, 2022

Research Appreciations/Recognition Details of students joined in higher educational institutes/companies

Roll No	Name	Placement details	Current Status
175111	Bristi Panja	Tufts Gordon Institute, USA	Pursuing MS ((Innovation & Management))
175126	Sravya Mareedu	U. Texas, USA	(MS – CS)
175122	Kodam Abhigna	IIT Delhi	PhD
175138	Rafshan Ul Atik	IIT Madras	M.Tech
175132	Bala Balaji Bhardwaj Nemani		MS, University of Buffalo

B.Tech. (Metallurgical and Materials Engineering) Batch: 2018-2022

S.No	Roll Number	Name	Company name
1	165124	Kakarla Puneeth	314e
2	175101	Aayush Kumar	ADP
3	175103	Ankit Jha	ADP
4	175104	Anubhav Kumar	TCS Innovator profile
5	175105	AretiHarshith SWAMY	CGI
6	175106	B.MeghaShyam	Byju's
7	175109	Sahil Bhat	Vedanta
8	175111	BristiPanja	OfBusiness
9	175112	SaahithiChippa	Capgemini
10	175113	DameraSravya	HCL
11	175114	Dheeravath Rahul Kumar	Byju's
12	175115	GantaAkhil	Standav
13	175116	Harsh Pareek	Prokarma
14	175117	Harshit Singh	Sigmoid Analytics
15	175124	Sri CharanKrovi	ZS
16	175125	BhavyaKalpana Reddy Kundooru	CollegeDunia
17	175126	SravyaMareedu	Axis Bank
18	175127	Mohammed Zohair Ali Khan	CollegeDunia
19	175128	MudigondaAravind Kumar	Vedanta
20	175129	MungipudiSaivamshi	AMNS

21	175130	Naman Shah	OfBusiness
22	175132	NemaniBalaBalajiBharadwaj	HCL
23	175133	Perla Sai Sri Soumya	Tata Steel
24	175134	Podduturi Sai Kumar	CollegeDunia
25	175136	Sai SrikarPuppala	Fractal Analytics
26	175137	BhavyaHarikaPyalakurthi	CGI
27	175141	SabyasachiSaha	AMNS
28	175142	ManitejaSamala	Impact Analytics
29	175143	Satyam Pratap Singh	Novartis Healthcare
30	175144	SaumyaAgnihotri	Impact Analytics
31	175145	ShivamChaurasia	Vedanta
32	175146	Shubham Joshi	CGI
33	175147	Skand Gupta	OfBusiness
34	175150	Krishna PratardanTaduri	ZS
35	175151	Sai Preetham	Evosys
36	175152	T SatvikNaren	Capgemini
37	175155	U V Madhava Rao	Linde
38	175156	Vasudeva VivekKothalanka	Byju's
39	175157	Vemula Raj Kumar	LnT
40	175160	V.Srilekha	Vedanta
41	175161	Vivek B	Byju's
42	175162	Yada Havisha Gupta	Ganit Inc.
43	175163	YarlagaddaRavalika	HCL

M.Tech. (Industrial Metallurgy) Batch: 2021-2022

S.No.	Roll No	Name of the Student	Currently as
1	205501	Aditya Manohar Mahajan	Agarwal metals work Pvt.Ltd.
2	205516	Sandip Kumar Bauri	Agarwal metals work Pvt.Ltd.
3	205514	Pushpak Kumar Sen	Agarwal metals work Pvt.Ltd.
4	205513	Prathamesh Sonje	Agarwal metals work Pvt.Ltd.
5	205505	Bal Krishna Jangid	Agarwal metals work Pvt.Ltd.
6	205515	Hanuma Reddy	PwC
7	205518	Suraj Raj	Byjus
8	205508	Karan Singh	Federal Bank
9	205517	Sneha Bobade	AMNS
10	205507	Jyoti Kumari	AMNS
11	205519	Swapnil Agarwal	Agarwal metals work Pvt.Ltd.
12	205512	Yash Neralwar	Agarwal metals work Pvt.Ltd.

M.Tech. (Materials Technology) Batch: 2021-2022

S.No.	Roll No	Name of the Student	Currently as
1	205615	Saavath Vinod Kumar	Agarwal metals work Pvt.Ltd.
2	205602	Aloysius Lobo	Agarwal metals work Pvt.Ltd.
3	205601	Aditya Kumar	Cummins India Limited
4	205604	Bebin M	Snam Alloys
5	205610	Nikhil T G	Fitjee Classes
6	205616	Shardendu Shukla	Akash Institute

7	205614	Chitresh Chandra	Fitjee Classes
8	205617	Suraj Kunwar* (* Double placement)	Byjus
9	205617	Suraj Kunwar*	Agarwal metals work Pvt.Ltd.
10	205606	Gadige Sushma	Snam Alloys
11	205611	Nitin	Agarwal metals work Pvt.Ltd.
12	205615	Salavath Vinod kumar	Agarwal metals work Pvt.Ltd.
13	205603	Anuj	Pysics wallah (off campus)
14	205607	Rajendra Lakkipgu	ISRO/ITI (off campus)
15	205609	Moola Nitish	NPCIL (off campus)
16	205620	Poorna Chandra Rao	ITI (off campus)

Placement statics

S. No.	Course	Total Students	Eligible	Placed	% Placement	Average Salary LPA
1	B. Tech	57	38	30	78.9	12.83
2	M. Tech (IM)	19	17	11	64.7	7.36
3	M. Tech (MT)	19	16	11	68.7	9.08

Department Association/Students Clubs Activities

1. Dr. D. K. Das, Scientist H & Associate Director, DMRL, Hyderabad has delivered an online expert lecture during the virtual inauguration ceremony of MMEA-IIMSC association on Novemebr 5th, 2021.

2. Dr. Easwaramoorthi Ramasamy, Scientist E, ARCI Hyderabad has delivered an onine expert guest lecture on the topic of "Next Generation Solar Cells - Materials and Methods" on 17th August, 2021.
3. Four days Fresher's Event 'Prologue to Escapade' (Freshers invitation)- Organized an interaction session with the faculty, seniors and orientation about the department for the fresher. (January 7-10th -2022)

DEPARTMENT OF CHEMICAL ENGINEERING

Brief History of the Department, Academic Programs

The department of Chemical Engineering was started in the year 1964 and since then it has come a long way in educating budding chemical engineers and scholars. The department celebrate its Golden Jubilee in 2014-15. The department offers B.Tech. M.Tech. and Ph.D. prorammes. . B.Tech. program in Chemical Engineering has been accredited for 5 years by NBA with effect from June 2015 .M.Tech. in Chemical Engineering with Specialization in CAPED has been re-designated as M.Tech. in Chemical Engineering in 2015.M.Tech. Course in Process Control is being started in 2016 which has been re-designed as M.Tech in Systems and Control Engineering in 2021. Students are admitted to these programmes based on National level competitive examinations. Foreign national students are also given admission to these programmes. The department has well qualified faculty dedicated to teaching and doing research in fundamental and advanced areas. The department houses various laboratories catering to the needs of the curriculum. The faculty are actively engaged in industrial consultancy and sponsored research projects. The department has inked MoUs with some of the leading industries. The graduating students are absorbed into reputed firms through campus placements. The department aims at inculcating lifelong learning skills in the students. The alumni of the department are shouldering high positions in multifarious organizations.



Summary

S. No.	Activity	Number
1	**Publications (Peer Reviewed Journals/ conferences) (SCOPUS/SCI)**	62
	International Journals with impact factor	59
	International Journals without impact factor	3
2	**Funded Research Projects/SPARC projects (2020-21)**	6
	DBT, DRDO	1
	Ongoing Projects	6
	DST, SERB, IITM, NHAI, CSIR	7
	Total number of projects ongoing	**16**
	Total budget	**429.88 lakhs**
3	**Ph.D. Awarded**	6
4	**Book Chapters**	19

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 Professor	Ph.D.	Biochemical Engineering	
6.	Dr. S. Srinath Professor & Head	Ph.D.	Fluidized bed combustion, Modelling and Simulation	

7.	Dr. A. Seshagiri Rao Professor	Ph.D.	Process Control, Wastewater treatment	
8.	Dr. P.V. Suresh 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 Associate Professor	Ph.D.	Flow Batteries, Fuel cells and Membrane Separations	
11.	Dr. G. Uday Bhaskar Babu Associate Professor	Ph.D.	Modelling and Simulation, Energy Integration, Process Control	
12	Dr. V. Ram Sagar Associate 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

1. Raju Kalakuntala, Mallaiah Mekala, Suman Chirra, Venkatathri Narayanan, Vighneswara Rao Kakara, Srinath Suranani "Preparation of Ti Material Supported SBA-15 Functionalized with Sulfonic Acid Environmental Friendly Catalyst: Application for Esterification Process." Journal of Nanomaterials, 2022 (2022) 6712464. https://doi.org/10.1155/2022/6712464 Hindawi. (Impact Factor: 3.79)
2. Raju Kalakuntala, Srinath Suranani. "Kinetics on propionic acid catalytic esterification with N-butanol over SBA-15 (santa barbara amorphous-15 material) catalyst" Materials Today: Proceedings, 47 (14) (2021) 4814-4819. https://doi.org/10.1016/j.matpr.2021.06.049 Elsevier. (Impact Factor: 1.46)
3. Hussein E Al-Hazmi, Hanieh Shokrani, Amirhossein Shokrani, Karam Jabbour, Otman Abida, Seyed

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62. Vyshnavi Chilla, Srinath Suranani "Thermogravimetric and kinetic analysis of orange peel using isoconversional methods." Materials Today: Proceedings (2022). https://doi.org/10.1016/j.matpr.2022.06.196 Elsevier (Article in Press)

Funded Research Projects

New Projects Sanctioned

1. Dr. P.A. Anjana (Department of Chemical Engineering) have received a project on 'Development of single-crystal pyrochlore nanomaterial and its study as electrolyte for Intermediate Temperature Solid Oxide Fuel Cells',

Startup Research Grant (SRG) SERB worth of Rs. 24.97 Lakhs.

2. Dr. Srinath S and Dr. Raghu Raja Pandiyan Kuppusamy (Department of Biotechnology) have received a project on "Development of 3D printable composite thermal shields using photo cure short fiber nano hybrid resins through Reactive Additive Manufacturing Process", DST, worth of Rs. 30.4 Lakhs.
3. Dr. P.A. Anjana (Department of Chemical Engineering) have received a project on 'Development for Hydrogen Peroxide dissociation for monopropellant Thrusters', ISRO, RESPOND worth of Rs. 24.97 Lakhs.
4. Dr. Shirish Sonwnne and Dr. Srinath S (Department of Chemical Engineering) have received a project on "Development of Technology for color- coated Coins/Blank /Medallions and Tokens for Atmanirbhar Bharat", IGM, Hyderabad, worth of Rs. 10.4 Lakhs.
5. Dr. Shirish Sonwnne "Development of effective robust process for the synthesis of polyacrylic based Microspheres" Kiron Lab USA/Gujarat India worth of Rs. 5.30 Lakhs
6. Dr. P. Sampath Kumar "Analyze the composite materials for electrical properties" Nanospan India Pvt. Ltd, Patancheru, worth of Rs. 1 Lakh.

Ongoing Projects

1. Dr. Shirish Sonwnne (Department of Chemical Engineering) and Dr. Perugu Shyam (Department of Biotechnology) ongoing project on "Demonstration of Technology for treatment of rain harvested water lakes in Warangal Telangana State", DST WTI, worth of Rs. 44.41 Lakhs. (2021-24)
2. Dr. Shirish Sonwnne and Dr. Murali Mohan Seepana (Department of Chemical Engineering) ongoing project on "Development and Demonstration of Pilot-scale Hybrid Wastewater Treatment System with Hydrodynamic Cavitation and Biosurfactant for Recycling of Textile Effluent", IMPRINT SERB, worth of Rs. 44.42 Lakhs. (2019-22).
1. Dr. Shirish Sonwnne (Department of Chemical Engineering) ongoing project on "Development of electrically conductive adhesives for flexible film circuits and microrocssor packaging applications", MEITY R&D in Electronics and Cyber Security

Group, Electronic Material and Component Development Division, worth of Rs. 44.10 Lakhs. (2021-24).

3. Dr. Anand Kishore Kola (Department of Chemical Engineering) ongoing project on "Low-cost Biodegradable Polymer for Application in Food Packaging", SERB, worth of Rs. 25.5 Lakhs. (2021-23).
4. Dr. Murali Mohan Seepana, (Department of Chemical Engineering) "Tackling textile pollution using a 3D printed hybrid process", The Royal Society, UK, IES\R1\201244 dated 30-03-2021, worth of Rs.12.36 Lakhs.
5. Dr. Sheshagiri Rao (Department of Chemical Engineering) "Development of advanced automatic control based wastewater treatment process towards sustainable water-energy-food nexus" DST (DST/TMD) worth of Rs.67.49 Lakhs (2021-24).
6. Dr. Shirish Sonwnne (Department of Chemical Engineering) ongoing project on "Development of process for the synthesis of cellulose nanocrystals from MCC", Tevoren Technologies LLP worth of Rs.3.30 Lakhs.
7. Dr. Manohar Kakunuri (Department of Chemical Engineering) "Development of Task-Specific Functional Ionic Liquid Extractant and Nanofibrous Membrane for Extraction of Rare Earth Elements" Lanum Foundry, USA worth of Rs.56.1 Lakhs.
8. Dr. Kishant Kumar, "Green Solvents for Recycling Cathodes of Spent Li-Ion Batteries", SERB, GoI, 2021, 25.16 Lakhs.
9. Dr Srinath, Dr Shirish, Dr Kishant (Department of Chemical Engineering) 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.

Completed

1. Dr Shirish Sonawane, "Process Development for the production of Janus Nanoparticles for selected catalytic reactions", SERB DST, 2018-21, GOI. Rs.20.87 Lakhs.
2. 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.

3. 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.
4. 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.
5. Dr. Manohar Kakunuri, "Fabrication of carbon soot based reusable and robust nanofiber membranes for effective oil-water separation", SRG-SERB, worth of Rs.27.1 Lakhs.
6. Dr. Murali Mohan Seepana, "Development and Demonstration of Hydrogen Redox Flow Battery using Non-Precious Electrocatalysts" SPARC 2019-2021, worth of Rs.43.17 Lakhs.
7. Dr Shirish Sonawane and Dr S. Srinath, "Cavitation based dispersion of Boron nanoparticles into JP10 Fuel", GTRE DRDO, 2019-21, Rs. 9.95 Lakhs.

S. No.	Title	Total Amount sanctioned	Funding agency and Project No.	Instalment, 2021-2022
1.	Development of single-crystal pyrochlore nanomaterial and its study as electrolyte for Intermediate Temperature Solid Oxide Fuel Cells. Dr. P.A. Anjana	Rs. 24.97 Lakhs	SRG-SERB	Rs. 1,77,8605/-
2.	Development for Hydrogen Peroxide dissociation for monopropellant Thrusters Dr. P.A. Anjana	Rs. 24.97 Lakhs	ISRO-RESPOND	Rs. 1,02,5750/-
3.	Development of 3D	Rs. 30.4	CRG-SERB	Rs. 15,02,600/-

	printable composite thermal shields using photo cure short fiber nano hybrid resins through Reactive Additive Manufacturing Process Dr. Srinath S and Dr. Raghu Raja K.P.	Lakhs		
4.	Development of Technology for color-coated Coins/Blank /Medallions and Tokens for Atmanirbhar Bharat Dr. Shirish Sonwnne	IGM, Hyderabad, Rs. 10.4 Lakhs	IGM, Hyderabad,	Rs. 1,87,000/-
5.	Development and electrically conductive adhsives for flexible film circuits and microprocessor packaging applications Dr. Shirish Sonwnne	MEITY R&D in Electronics and Cyber Security Group, Rs. 44.10 Lakhs.	MEITY	Rs.17,70,000/-
6.	Development of advanced automatic control based wastewater treatment process towards sustainable water-energy-food nexus Dr. Sheshagiri Rao	DST (DST/TMD) worth of Rs.67.49 Lakhs		
7.	Development and Demonstration of Pilot-scale Hybrid Wastewater Treatment System with Hydrodynamic Cavitation and Bio surfactant for Recycling of Textile Effluent	Rs. 41.42 Lakhs	IMP/2019/000004, dated 16 December 2019	Rs. 15,00,000/-
8.	Process Development for the production of Janus Nanoparticles for selected catalytic	Rs. 20.87 Lakhs	SERB DST, 2018-21 , EMR/2016	Rs. ZERO

	reactions		/007585	
9.	Identification and Control strategies for improvement of Proton Exchange Membrane (PEM) Fuel Cell	Rs. 17.1 Lakhs	SERB,DST EEQ/2018 /000993 dated 26-02-2019	
10.	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	
11.	Machine learning based control for wastewater treatment plants	Euro 3000	Duo-India grant to visit The Autonomous University of Barcelona (UAB), Spain	
12.	Fabrication of carbon soot based reusable and robust nanofiber membranes for effective oil-water separation	Rs. 27.08 Lakhs	SERB, SRG/2019 / 00313.	Rs.2,87,000/-
13.	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,	
14.	Effective Management of Process Slag from PCB smelting.	Rs. 10 Lakhs	C-MET Hyderabad. Dated 05-05-2021,	Rs.10,00,000/-

15.	Tackling textile pollution using a 3D printed hybrid process,	Rs.12.36 Lakhs	The Royal Society, UK, IES\R1\201244 dated 30-03-2021.	-
16.	Low-cost Biodegradable Polymer for Application in Food Packaging"	Rs. 23.414 Lakhs.	SERB, GoI, 2021,	
17.	Green Solvents for Recycling Cathodes of Spent Li-Ion Batteries,	Rs. 26.76989 Lakhs.	SERB, GoI, 2021,	
18.	Development of process for the synthesis of cellulose nanocrystals from MCC, Tevoren Technologies LLP, 2021.	Rs.3.30 Lakhs.	Tevoren Technologies LLP, 2021,	Rs.0/-
19.	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	Rs.2,70,000/-
20.	Ultrasonic encapsulation of bioactive compounds to deliver in the food matrix.	Rs. 16 Lakhs	Indo-Russia DST-/INT/RUS/RFBR/P-324, 2018-20,	Rs. 0/-
21.	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	Rs. 16,15,421/-

Books and Book Chapters

1. Raju Kalakuntala, Mallaiah Mekala, Bhoopal Neerudi, Srinath Suranani "Kinetic Studies for the Esterification of Propionic Acid with 1-Butanol Process with Ionic Resin Catalyst" Springer, Cham, 2022.
2. Vikas S Hakke, Vividha K Landge, Shirish H Sonawane, Ravindra W Gaikwad, Shriram S Sonawane. "Mathematical, numerical, and experimental investigations of metal extraction processes." In Applications of Nanofluids in Chemical and Bio-medical Process Industry, pp. 251-268. Elsevier, 2022.
3. Swapnil H Adsul, K Pradeep Prem Kumar, S Manasa, Aarti Gautam, KV Gobi, Shirish H Sonawane, R Subasri. "Corrosion Protection of Metals/Alloys through Multifunctional Sol–Gel Nanocomposite Coatings." A Treatise on Corrosion Science, Engineering and Technology (2022).
4. Kyathanahalli Marigowda Yashawantha, Gaurav Gurjar, A Venu Vinod. "Stability and Thermal Conductivity of Ethylene Glycol and Water Nanofluid Containing Graphite Nanoparticles." Innovations in Sustainable Energy and Technology pp. 231-242. Springer, Singapore (2021).
5. Vivek Kumar, R Ranganayakulu, Gara Uday Bhaskar Babu. "Analytical Design of IMC-Based PID Controller for Non-minimum Phase Process with Time Delay." Control Applications in Modern Power Systems pp. 499-511. Springer, Singapore (2022).
6. Arvind Kumar Mungray, Alka A Mungray, Shriram S Sonawane, Shirish Hari Sonawane" Novel Approaches Towards Wastewater Treatment and Resource Recovery Technologies" Elsevier, 2022.
7. Bhaskar Bethi, GB Radhika, Shirish H Sonawane, Shrikant Barkade, Ravindra Gaikwad. "A Historical Approach for Integration of Cavitation Technology with Conventional Wastewater Treatment Processes." Sustainable Water Treatment: Advances and Technological Interventions, pp. 27-56. John Wiley & Sons, Inc., 2022.
8. Parag P Thakur, Shriram S Sonawane, Shirish Hari Sonawane.

"Nano-particle-enhanced ionic liquids (NEIL) for the wastewater treatment." Novel Approaches towards Wastewater Treatment and Resource Recovery Technologies, pp. 325-338. Elsevier, 2022.

9. Bhaskar Bethi, Gidla Bhanu Radhika, Shirish Hari Sonawane. "Fundamentals of advanced oxidation processes (AOPs) for wastewater treatment: Challenges and opportunities." Novel Approaches towards Wastewater Treatment and Resource Recovery Technologies, pp. 209-220. Elsevier, 2022.
10. Sneha A Korpe, Vividha Landge, Vikas S Hakke, P Venkateswara Rao, Shirish Hari Sonawane, Shriram S Sonawane. "Advanced oxidation processes for tannery industry wastewater treatment." Novel Approaches towards Wastewater Treatment and Resource Recovery Technologies, pp. 253-276. Elsevier, 2022.
11. Vikas S Hakke, Shailesh Ghodke, Surya Teja, P Dilipkumar, Shirish Hari Sonawane, Ravindra Gaikwad, Shriram S Sonawane " Ultrasonication based wastewater treatment." Novel Approaches towards Wastewater Treatment and Resource Recovery Technologies, pp. 221-240. Elsevier, 2022.
12. Shriram S Sonawane, Manjakuppam Malika, Parag P Thakur, Shirish Hari Sonawane. "Carbon nano tubes (CNT) based hybrid nano fluids for the wastewater treatment plants in the industry." Novel Approaches towards Wastewater Treatment and Resource Recovery Technologies, pp. 313-324. Elsevier, 2022.
13. Vividha K Landge, Vikas S Hakke, Sneha A Korpe, P Venkateswara Rao, Shirish Hari Sonawane, Shriram S Sonawane, Grzegorz Boczkaj. "Hybrid systems using hydrodynamic cavitation/ultrasound/Fenton processes for effective treatment of wastewater." Novel Approaches towards Wastewater Treatment and Resource Recovery Technologies, pp. 391-416. Elsevier, 2022.
14. Shriram S Sonawane, Abhijit Gadhe, Parag P Thakur, Shirish Hari Sonawane, Hussein A Mohammed. "Nano-biotechnology for bacterial modification for wastewater treatment and resource recovery." Novel Approaches towards

Wastewater Treatment and Resource Recovery Technologies, pp. 295-312. Elsevier, 2022.

15. Raghu Raja Pandiyan Kuppusamy, Anita Zade. "A Comprehensive Review on Single- and Multi-Objective Optimization of Liquid Composite Moulding Process "Raghu Raja Pandiyan Kuppusamy Anita Zade, pp. 57-66. Springer, 2021.
16. Raghu Raja Pandiyan Kuppusamy, Santoshi Mohanta Swati Neogi. "Molding of Carbon-Epoxy Composite Prepregs for Applications in Aerospace Industries." Advanced Composites in Aerospace Engineering Applications, pp. 303-318. Springer, 2022.
17. Aishwarya Mulampaka, KS Rajmohan. "Computational Study of Mixing of Shear Thinning Fluids with Modifications in Rushton Turbine Impeller." Recent Trends in Fluid Dynamics Research, pp. 1-14. Springer, Singapore, 2022.
18. Rajmohan Kunju Vaikarar Soundararajan, Sunita Varjani, Ramya Chandrasekaran, 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 Material pp. 463-488. Wiley-Vch Gmbh,
19. Naresh Thota, "Molecular Dynamics Simulation for Heat and Mass Transfer in Food Products/Processing." Advanced Computational Techniques for Heat and Mass Transfer in Food Processing, pp. 145-167. CRC Press, 2022.

Conferences, workshops, FDPs, Webinars organized

S. No	Title	Dates, Month, Year	No. of Participants	Organized by	Coordinators
1	FDP on Manufacturing & Characterization of Advanced Materials	14-21, March 2022	52	Electronics & ICT Academy, Department of Chemical Engineering, National Institute	Dr. Raghu Raja Pandiyan K. & Prof. R. Rajasekar

				of Technology Warangal Department of Mechanical Engineering, Kongu Engineering College, Perundurai	
2.	International Online Workshop On 'Advances in Energy Technologies for Renewable-powered Future' Under SPARC Project,	23rd -24th September, 2021	80	Department of Chemical Engineering, National Institute of Technology Warangal	Dr. Murali Mohan Seepana and Dr. K.S. Rajmohan
3.	Two day FDP on "Outcome Based Education" for the faculty of IIIT D&M, Kurnool and IIIT, Trichy	10-11, June, 2021	60+	IIIT D&M, Kurnool and IIIT, Trichy	Prof. A. Sarath Babu

Invited talks delivered

1. Dr. Seshagiri Rao Ambati delivered an invited talk on "Multi-model control of nonlinear systems, in an FDP titled Recent Trends in Control System Engineering" organized by NIT Patna on June 2, 2021.
2. Dr. Seshagiri Rao Ambati delivered an invited talk on "Advanced control of wastewater treatment plants", in an FDP titled Recent Trends in Control System Engineering organized by NIT Patna on June 3, 2021.
3. Dr. Raghu Raja Pandiyan Kuppusamy delivered an invited talk on "Porous Flow Analysis using Fluid Dynamic Simulators" ATAL academy sponsored online FDP on "Fluid Flow Analysis using ASPEN HYSYS and ASPEN PLUS for Chemical Engineers", 16-09-2021 Organized by Department of Chemical Engineering, VelTech HighTech, Avadi, Chennai, Tamil Nadu
4. Dr. Raghu Raja Pandiyan Kuppusamy delivered an invited talk on "Resin Cure Analysis for

Composite Manufacturing" Online FDP on "Emerging Trends in Advanced Production and Industrial Engineering", 23-07-2021, Organized by Department of Mechanical Engineering, Federal Institute of Science and Technology, Angamaly, Kerala

5. Dr. Raghu Raja Pandiyan Kuppusamy delivered an invited talk on "Process Modelling, Simulation & Optimization in Industrial Amine Production" Online FDP on "Novel Applications of Chemical Engineering", 19-07-2021, organized by Department of Chemical Engineering, MVGR College of Engineering, Vizianagaram, Andhra Pradesh.
6. Dr. Naresh Thota delivered an invited talk on "Creation of Quiz in Moodle and Delivering online course using Google Classroom" online short-term course on MOOCS, Online Courses & Open educational Resources, 19 - 26, July 2021 conducted by UGC - HRDC, Osmania University, Hyderabad.
7. Dr. Venkata Suresh Patnaikuni, delivered a talk on "Flow Field Designs for PEM Fuel Cells" during an international online workshop on "Advances in Energy Technologies for Renewable-powered future" organized by NIT Warangal in collaboration with New Castle University, UK during 23-24 September 2021.
8. Dr. Venkata Suresh Patnaikuni delivered a talk on "Chemical Looping Combustion based Coal-Fired Power Plants for Sustainable Thermal Power production : 4-E Analyses" during ATAL 5-day online FDP on 'Carbon Dioxide as a working fluid for future energy requirements' by NIT Andhra Pradesh during 25-29 September 2021.
9. Dr. Venkata Suresh Patnaikuni delivered an invited talk on "4-E analyses of Chemical Looping Combustion based Coal-Fired Power Plants for Sustainable Thermal Power and Hydrogen production" on 4th International Conference on 'Recent Advances in Mathematical Sciences and Applications (RAMSA-21)' by GVP College of Engineering, Visakhapatnam from 21st to 24th December, 2021.
10.

PhD Research guidance

1. Radhika Gandu (716163) completed her PhD with the title "Vapor Recompression in Batch distillation for Separation of Ternary Zeotropic MIxtures: Feasibility and Analysis" under the guidance of Dr. Uday Bhaskar Babu G (Main Supervisor) and Dr Seshagiri Rao A (CO-Supervisor) June (2022).
2. Suresh Chiluka (717142) completed his PhD with the title "Data-driven Robust Controller Design via Virtual Reference Feedback Tuning Approach" under the guidance of Dr. Uday Bhaskar Babu G (Main Supervisor) and Dr. Muralimohan (CO-Supervisor) July 2022.
3. Tejaswini (717143) completed her PhD with the title "Design of Control Strategies for Activated Sludge based Waste Water Treatment Plants for Improved Operability" under the guidance of Dr. Seshagiri Rao A (Main Supervisor) and Dr. Uday Bhaskar Babu G (CO-Supervisor) December (2021).
4. Yashawantha K M (718155) completed his PhD with the title "Heat Transfer Enhancement using Ethylene Glycol and Water mixture based nanofluids in a Plate Heat Exchanger" under the guidance of Dr. A. Venu Vinod April (2022).
5. Sheik Abdul Gaffar (716164) completed his PhD with the title "Heat Transfer Enhancement using Ethylene Glycol and Water mixture based nanofluids in a Plate Heat Exchanger" under the guidance of Dr. Murali Mohan (Main Supervisor) and Dr. A. Sheshagiri Rao (Co-Supervisor) April (2022).
6. Surywanshi Gajanan Dattarao (716040) completed his PhD with the title "4-E (Energy, Exergy, Ecological and Economic) analyses of Chemical-Looping Combustion based Coal Fired Power Plants for CO_2 Capture and Utilization" under the guidance of Dr. P .V. Suresh June (2021).

Awards, Outreach Activities, Achievements and Distinctions of Faculty members

1. Prof. Shirish H. Sonawane has been selected for faculty secondment for Asian Institute of Technology (AIT) Bangkok.
2. Dr. Seshagiri Rao Ambati joined as 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, modeling, simulation, and optimization.
3. Dr. Venkata Suresh Patnaikuni joined as Associate Editor of Journal of Sustainable Mining on November 8th 2021. It is an international, scopus indexed quarterly journal published by Central Mining Institute (Główny Instytut Górnictwa) and Elsevier. It covers clean coal technologies, materials engineering, rock mechanics, mining surveying, management of mineral resources, mining technology and techniques, geoengineering, etc. https://jsm.gig.eu/journal-ofsustainable-mining/editorialboard.html
4. Prof. Shirish Sonawane joined as visiting researcher to Gdansk Technological University Poland under the National academy of Poland Fellowship (NAWA) program. He is working in research group of prof. Grzegorz Boczkaj from the Department of Process Engineering and Chemical Technology
5. Prof. Shirish H. Sonawane, visited to Gdansk University of Technology, Poland during 28 June 2021 to 31 November 2021 for The Polish National Agency for Academic Exchange (NAWA) Poland for the International Visiting fellowship in the Department Process Engineering and Chemical Technology, Faculty of Chemistry, Gdansk University of Technology, Poland, under the Ulam Program 2020.

New Lab Equipments/software/Workstations Installed

1. Purchased & Installed High Pressure Hydrothermal Autoclave Reactor.
2. Purchased & Installed Photochemical Reactor

3. Purchased & Installed Fast Pyrolysis reactor
4. Purchased & Installed Emulsion Polymerization Reactor
5. Purchased & Installed 3D Printer with Curing and Washing Accessories
6. Purchased & Installed Bench Ultraviolet Light Accelerated Weathering Tester
7. Purchased & Installed Refrigerated centrifuge
8. Purchased & Installed Optical Microscope
9. Purchased Doctor blade
10. Purchased & Installed Coin cell crymper
11. Purchased & Installed Servers (Tyrone 2 x Intel DDR4 SDRAM with EC 64GB).
12. Purchased & Installed Pervaporation Membrane System.

Best student papers and other achievements

1. Mr. T Manideep Reddy, a final year Student of B Tech from Chemical Engineering ranked All India first rank in GATE 2022.

2. Shravani Mangu, Vanessa Suares, Abhishek Gupta, Anjana P Anantharaman won the "Best Paper Award", entitled "Evaluation of the PhysioChemical Properties of LaCeO3 Perovskite for the Catalytic Performance" at International Chemical Engineering Conference 2021(100 Glorious Years of Chemical Engineering & Technology) organized by Department of Chemical Engineering, Dr B R Ambedkar National Institute of Technology, Jalandhar during September 16 -19, 2021(CHE).

Research Appreciations/Recognition

1. Enhanced performance of emulsion liquid membrane prepared with aid of hydrodynamic cavitation for effective removal of Pb (II) from aqueous feed phase: Optimization using Artificial Neutral Networks modelling. Minal Lakhe, Sohan A Parbat, Bharat A Bhanvase, **Shirish H Sonawane**. Journal of Environmental Chemical Engineering (Vol. 9(6)) (2021) 106866.https://doi.org/10.1016/j.jece.2021.106866 Elsevier. (Impact factor: 7.968)

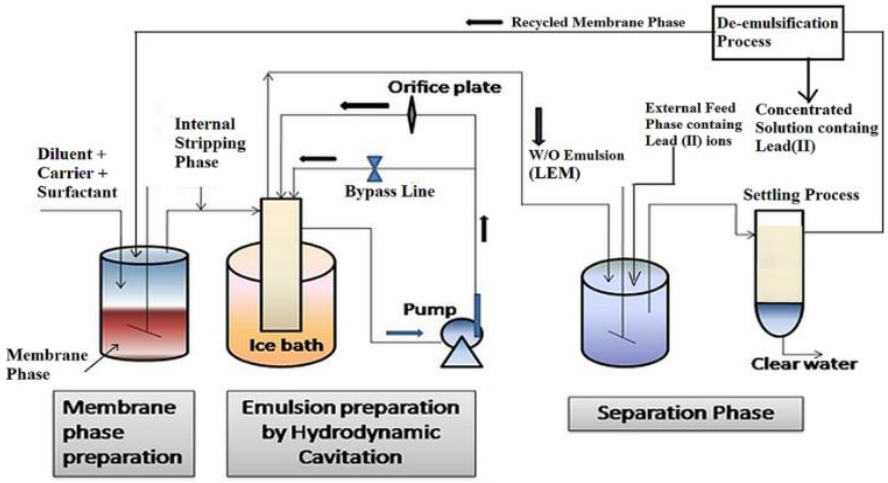


Figure: Schematic of hydrodynamic cavitation-based experimental setup for preparation of ELM and extraction/removal of Pb (II) from aqueous feed phase.

2. "CO2 capture and utilization from supercritical coal direct chemical looping combustion power plant–Comprehensive analysis of different case studies." Applied Energy (Vol. 304) (2021) 117915. https://doi.org/10.1016/j.apenergy.2021.117915 Elsevier (Impact factor: 9.746) Gajanan Dattarao Surywanshi, **Venkata Suresh Patnaikuni, Ramsagar Vooradi, Manohar Kakunuri.**

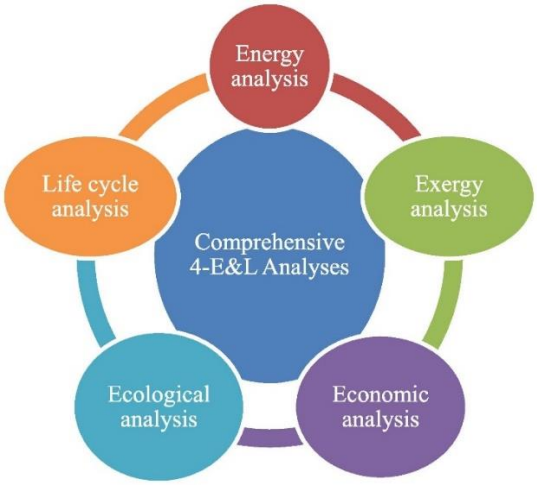


Figure: 4-E&L analyses.

Details of students joined in higher educational institutes/companies

Roll No	Name	Placement details	Current Status
186101	Abdulla Irshad	DEShaw	DEShaw
186104	Anuj Navin	Fractal Analytics	Fractal Analytics

186106	B Sree Harsha	CITRIX	CITRIX
186108	Sharath Chandra Basani	Amazon	Amazon
186111	Priyaanka Reddy Boothkuri	Amazon	Amazon
186112	Chennuri Praneetha	BNY Mellon	BNY Mellon
186113	Chilukuri Sapthagirish	BNY Mellon	BNY Mellon
186114	Meghana Kollipara	Chronus	Chronus
186115	Deep Chirag Shah	Microsoft	Microsoft
186118	GONTHINA KARUNAKAR	Microsoft	Microsoft
186119	Grandhe Sreesai Vaishnavi	WabTec	WabTec
186120	G.Muniteja	Amex	Amex
186121	Harsh Srivastava	Mastercard	Mastercard
186122	Kalepu Navya Manisha	Fischer Jordan	Fischer Jordan
186124	Danturti Sai Pavan	Morgan Stanley	Morgan Stanley
186125	Kondam Rohan Reddy	Goldman Sachs	Goldman Sachs
186126	Sreeja Kunchana	Goldman Sachs	Goldman Sachs
186129	Yashwanth Malneedi	Oracle	Oracle
186130	Miduthuri V N S Tejaswini	DEShaw	DEShaw
186131	Yasir Mohammed	Mastercard	Mastercard
186133	Sai Nikhil Musthyala	Amazon	Amazon
186134	Nalla kankshith Reddy	VISA	VISA
186135	Dhananjay Nandeshwar	ExxonMobil	ExxonMobil
186136	Shalini Sai Padamata	UBER	UBER
186138	Piyush Ravindra Ambulgekar	Goldman Sachs	Goldman Sachs
186140	Pratik Shete	Mastercard	Mastercard
186144	Sai Nigam	Microsoft	Microsoft
186145	Siramsetti Madhu Karthiek	WabTec	WabTec

186146	Subhank Kumar	Chronus	Chronus
186148	Swetank Sahai	Deutsche Bank	Deutsche Bank
186149	Yeshwanth Kumar Thirunagari	Qualcomm	Qualcomm
186201	Achintya Venkatachalam	BNY Mellon	BNY Mellon
186203	Amruta Sanjay Gawalwad	Goldman Sachs	Goldman Sachs
186204	Aradhyula Venkata Sri Surya Praneeth	VISA	VISA
186205	Ayushi Sinha	Qualcomm	Qualcomm
186206	B Sai Harshit	VISA	VISA
186208	Bhaskar Reddy Koramati	CITRIX	CITRIX
186211	Chendil Bharath	Amazon	Amazon
186212	Vyshnavi Chilla	SCB	SCB
186214	Harshita Darlapudi	DEShaw	DEShaw
186216	Gaddam Phani Ganesh	Qualcomm	Qualcomm
186217	Garima Verma	Qualcomm	Qualcomm
186218	Govindreddygari Neeraj Reddy	BNY Mellon	BNY Mellon
186221	Jovita Varghese	VISA	VISA
186222	Krishna Chaitanya Kanduri	ServiceNow	ServiceNow
186223	Kaushal Sethiya	Amazon	Amazon
186224	Konda Mounika	Mastercard	Mastercard
186225	Korangi Mohith Gupta	Fractal Analytics	Fractal Analytics
186226	Kurisetti Siva Sai Vivek	BNY Mellon	BNY Mellon
186227	M Y Yuktesh	Goldman Sachs	Goldman Sachs
186228	Maniteja Madishetti	Goldman Sachs	Goldman Sachs
186229	Mareddy Sri Lokesh reddy	Microsoft	Microsoft
186230	Moaaz Mohammed Naseeruddin Ahmed	Mastercard	Mastercard
186231	Mohd Zaid Siddiqui	Fischer Jordan	Fischer Jordan
186232	Mugada Bhaskar	SCB	SCB

186233	NP Shammas	CITRIX	CITRIX
186235	Pabishetti Sravani	Qualcomm	Qualcomm
186237	Ganesh Patrana	Qualcomm	Qualcomm
186238	Anirudh Polaypalli	CITRIX	CITRIX
186241	Punukollu Hemanth	Microsoft	Microsoft
186242	Reddy Hymavathi	VISA	VISA
186243	Shikhar Jaiswal	Qualcomm	Qualcomm
186244	Sikhakolli Sai Rohit	Qualcomm	Qualcomm
186245	Sai Srija Sirela	Mastercard	Mastercard
186246	Soumyajit Das	Goldman Sachs	Goldman Sachs
186247	Suhail Akther M I	CITRIX	CITRIX
186248	Suryadevara Shailesh	UBER	UBER
186249	Tetala Mani Sandeep Reddy	Goldman Sachs	Goldman Sachs
186250	Vaibhav Gupta	Qualcomm	Qualcomm
186251	Vijay Sharma	ServiceNow	ServiceNow
186252	Hansith Vosa	Fractal Analytics	Fractal Analytics

Department Association/Students Clubs Activities

1. Virtual Inaugural Ceremony of "Chemical Engineering Association" and Talks on "Prospects of Chemical Engineerg in the world" by the Chief Guests Mr. M. Raja Mahender Reddy, Managing Director, Rhyme Organics & Chemicals and Venkateswara Pesticides & Allied Chemicals P Ltd., and Mr. Prasad Sambaru, Director, KREST , 30/11/2021.
2. Webinar on "Listen up Lessons" conducted in virtual mode on 19th September 2021 the speakers of this event were Ayaan Ali, a consultant at 09 solutions and Shashidhar K, an Imagineer at Fractal Analytics.
3. Technical event "CHEMPOSIUM" was conducted through virtual mode on Google Meet on 20th November 2022. In this event Students were given a topic for group discussion and the given topic in a nutshell was "Whether blending of BIOFUELS in petrol is Good/Bad? Around 30 students participated. Prizes worth INR 1000 were distributed to the winners.

4. Technical Quiz competition "CHEMIGNITE" was conducted on 3rd of January 2022. The quiz consisted of 2 rounds. The preliminary round was conducted through google form and the top 6 teams from the first round were selected for the finals. The finals were conducted on Google Meet. Prizes worth INR 1000 were distributed to the winners.
5. To welcome freshers the interactive session between seniors and juniors "CHARNIVAL" was conducted on 12th of January 2022.
6. Event 'Know Your Branch' conducted on 18th January, 2022 to create awareness about their course to the freshers.
7. Technical event "CHEM-E-CASE" was conducted on 20th February 2022 through Google Meet. Students were asked to present case study on "Water Purification". The event consisted of two rounds. The first round was screening the PPTs and the second round was a solution presentation. This event was to showcase the inner potential in solving real-life problems pertaining to the industry. We had huge participation from colleges all around the country with over 60+ contestants.
8. Game of Housie "Chem-O-Housie" was conducted on 20th February 2022 in online mode on the Cisco WebEx platform.
9. Speaking competition 'Chem-Engage' was conducted On February 19th and 20th 2022, through Google meet. Its main goal was to showcase and encourage public speaking which is a very important skill in our world.
10. A workshop on "Aspen Plus" was conducted on 19th February, 2022. The speaker was Dr. Sarat Babu Anne, Professor, Department of Chemical Engineering, NIT Warangal.
11. Interaction with industrial experts "Industry Insight" was conducted on 20th February 2022. The panel consisted of Mr Ugrasen Yadav, Associate Vice President: Process & Technology, TECHNIP ENERGIES INDIA Ltd, Mr. Praveen Saxena, Director and CEO: BLAST CARBOBLOCKS PVT. LTD, Vice President: Indian Carbon Society and Mr. Dhawal Saxena, Associate Director: BLAST CARBOBLOCKS PVT. LTD, Vice President: Indian Carbon Society.

Department of Computer Science and Engineering

As per NEP guidelines 2020, the Department of Computer Science and Engineering has revised the existing curriculum and has designed new scheme and syllabus for both UG and PG programs. As part of curriculum revision, the department has started offering one Minor program in CSE and B. Tech. Honors in CSE from 2021-2022 academic year onwards. Core Computer Science subjects need strong mathematical background and computational knowledge, and thus the department added a good number of mathematics subjects related computer science, besides Computational Thinking Practice, in the revised curriculum of UG and PG programs. Additional lab and tutorial hours are also included so that the students can spend more time in practicing the concepts. Since advances in the Computer Science extending its horizons in both depth and breadth manner, new courses such as Deep Learning, Reinforcement Learning, Microprocessor, Internet of Things, Blockchain Technologies and Software Defined Network are introduced in the new curriculum.

Patents Granted

1. Dr. K.V. Kadambari Assistant Professor, Department of CSE and her student Ms. B. Lavanya Madhuri were awarded a patent entitled, "Acceleration of incremental learning and decremental unlearning of Support vector machines", (Commissioner of Australia Patents) Patent number: 2021101567, April 2021.





2. E. Suresh Babu "An Efficient Spectral Cluster Routing Method to Enhance the Network Performance in Wireless Sensor Networks Publication The Patent Office Journal No. 12/2021 Dated 19/03/2021.

3. Bablani, Annushree Ms.; Reddy Edla, Damodar Dr. Bablani, Annushree; Reddy Edla, Damodar; Reddy, P. Saidi; Ch., Ramalingaswamy; Kumar, Pankaj, 2021102773, "A System And Method For Determining Truthful And Deceptive State Of A Person" 2021-05-23



Projects

1. Dr. Ram Krishan, Dr. Deepak Reddy Pullaguram, Dr. Sanjaya Kumar Panda, Dr. Venkateswara Rao Kagita, were sanctioned a Project entitled "Dynamic and Static Security Analysis of Large Power System using High Performance Computing", Grant: 45 Lakhs, NSM-IISC Bangalore (DST).





2. A project under "Student innovation program" by ARTPARK team of IISC Bangalore was granted to Mr. Vivek Dalai, MTech student under the guidance of Dr. K V Kadambari. The title of the project is "Masked face detection". Project is granted for 5.8 lakhs.





3. Dr. M. Srinivas received a grant to conduct an online skill development program from SERB under Advance for Accelerate Vigyan track.





4. Dr. Sangharatna Godboley (P.I), NIT Warangal and Prof. P. Radha Krishna (Co-PI), NIT Warangal , "Smart Cleaner: Automatic Clean the Smart Contract by Repairing Dead Atomic Conditions" Technology Incubation Hub (TIH) of National Mission on Interdisciplinary Cyber Physical Systems (NMICPS) for IIT Bhilai Innovation and Technology Foundation (IBITF) in FinTech Technologies under "Promotion and Acceleration of Young and Aspiring technology entrepreneurs (PRAYAS)" track for Rs. 26.46 Lakhs (3 years) 2022-2025.

5. Dr. Balaprakasa Rao Killi (P.I), NIT Warangal and Dr.Rakesh Tripathi (Co-PI), NIT Raipur "Blockchain-Enabled Digital Identity and Authentication for Dynamic KYC (Know Your Customer) in Banking and Finance Investigators", Technology Incubation Hub (TIH) of National Mission on Interdisciplinary Cyber Physical Systems (NMICPS) for IIT Bhilai Innovation and Technology Foundation (IBITF) in FinTech Technologies under "Promotion and Acceleration of Young and Aspiring technology entrepreneurs (PRAYAS)" track for Rs. 7.62 Lakhs (1 Year) 2022-2023.



Faculty Development Programmes

1. Dr.Sujit Das coordinated a 5 days online FDP on "Machine learning and optimization for uncertain decision making" from 05.03.2021 - 09.03.2021organized under CCE, NIT Warangal
2. Dr. Ijjina Earnest Paul coordinated a 5-day FDP on "Deep Learning and its Applications" from 26.04.2021 - 30.04.2021
3. Dr.Ijjina Earnest Paul, Dr. Balaprakasa Rao Killi, Dr. Venkateswara Rao Kagita coordinated a 5 day FDP on "Python for Scientific Computing " from 07.06.2021 -11.06.2021organized under CCE, NIT Warangal
4. E. Suresh Babu is the Coordinator for the Online Faculty Development Programme (FDP) On Cyber Crimes and Cyber Security Organized in Dept. of CS & IT, Maulana Azad National Urdu University (MANUU)In Association with E & ICT ACADEMY, NIT Warangal Sponsored by Ministry of Electronics and Information

Technology (Meity), GOI) from 20th September – 1 st October, 2021

5. E. Suresh Babu is the Coordinator for the One Month Placement Training Programme on Programming and Data Structure Organized in Placement Cell in Association with Dr. B R Ambedkar Learning Center, NIT Warangal, from 4th May 4 Jun, 2021.
6. M. Srinivas Coordinated a 10 days online FDP on Deep Learning and AI Applications, at Department of CSE, Geethanjali College of Engineering and Technology, Hyderabad, Association with E & ICT academy, NIT Warangal from 2 nd – 9 th August 2021.
7. M. Srinivas Coordinated a 10 days online FDP on AI & Machine Learning, online FDP Organized in Department of CSIT, Rajarambapu Institute of Technology, Maharashtra, Association with E & ICT academy, NIT Warangal, from 21st-30th August 2021.
8. M. Srinivas and Perugu Shyam Coordinated a 10 days online FDP on AI & Machine Learning for biomedical Applications at Department of CSE, NIT Warangal, Association with E & ICT academy, NIT Warangal, from 18th -27th October 2021.
9. M. Srinivas Coordinated a 10 days online FDP on Research Issues in AI: Applications of Machine Learning, Computer Vision and NLP, Organized in Department of IT, VR Siddhartha Engineering College, Kanuru, Association with E & ICT academy, NIT Warangal, 20th -30th October 2021.
10. M. Srinivas Coordinated a 10 days online FDP on Recent Trends in Medical Image Processing and Computer vision, Organized in Department of CSE, Yeswantrao Chavan College of Engineering (Autonomous), Nagpur, Association with E & ICT academy, NIT Warangal, 8 th - 17th November 2021.
11. Sujit Das Coordinated a 10 days online FDP on Data Science using AI and Soft Computing Techniques Organized by SRM INSTITUTE OF SCIENCE AND TECHNOLOGY Ramapuram, Association with E & ICT academy, NIT Warangal, 18th - 27th September 2021.
12. Dr Sujit Das organised 5 days online FDP from March 22- 26, 2022 on Data Intelligence and

Computation as coordinator under Center for Continuing Education, NIT Warangal.

13. Dr Sujit Das organised 10 days online FDP on Optimization Techniques in ML and AI from February 26 -March 07, 2022 as coordinator under E & ICT Academy, NIT Warangal
14. Dr. Earnest Paul Ijjina, conducted a 10 day online Faculty Development Program (FDP) on Machine Learning and its Applications with Python, sponsored by Ministry of Electronics and Information Technology (MietY), Govt. of India, organized by E&ICT Academy, NIT Warangal and Vignan's Foundation for Science, Technology and Research (Deemed to be University) Guntur during 17-26 January 2022.

Workshops Organised

1. Deep Learning Algorithms Implementation in Cloud Technology - Online Mode Dr. M. Srinivas, Dept. of CSE, NIT Warangal & Dr. G. Jose Moses, Dept. of CSE, Malla Reddy Engineering College (A), Medchal 1st July, 202110th July, 2021
2. Deep Learning – Foundations and Applications - Online Mode Prof. R. B. V. Subramaanyam,Dept. of CSE, NIT Warangal & Dr. Bharadwaja Kumar G, Dept. of CSE, Vellore Institute of Technology, Chennai 5th July, 2021 14th July, 2021
3. Artificial Intelligence Applications in Software Engineering - Online Mode Dr. S. Ravi Chandra, Dept. of CSE, NIT Warangal & Dr. Manjubala Bisi, Dept. of CSE, NIT Warangal, 6th July, 2021- 14th July, 2021
4. Data Science and Machine Learning - Online Mode Prof. R. B. V. Subramaanyam, Dept. of CSE, NIT Warangal & N MD Jubair Basha, Dept. of CSE, Kallam Haranadha Reddy Institute of Technology, Guntur, 12th July, 2021 - 20th July, 2021
5. Machine Learning Tools for IoT Applications - Online Mode Dr. M. Srinivas, Dept. of CSE, NIT Warangal & Dr. G. Sucharitha , Dept. of CSE, Institute of Aeronautical Engineering , Hyderabad12th July, 2021- 22nd July, 2021

6. Block chain and IoT - Online Mode Dr. R. Padmavathy, Dept. of CSE, NIT Warangal & Dr. T. Adilakshmi, Dept. of CSE, Vasavi College of Engineering (A), Hyderabad 12th July, 2021- 22nd July, 2021
7. Metaheuristics Techniques for Engineering Applications - Online Mode Dr. Manjubala Bisi, Dept. of CSE, NIT Warangal & S. Nagaraju , Dept. of CSE, Kakatiya Institute of Technology and Science, Warangal 16th July, 2021 23rd July, 2021
8. Blockchain Technologies - Online Mode Dr. R. Padmavathy, Dept. of CSE, NIT Warangal & Dr. Kalavathi. A, Dept. of IT, Vasireddy Venkatadri Institute of Technology,Guntur 19th July, 2021 29th July, 2021
9. Python Programming - Online Mode Prof. R. B. V. Subramaanyam, Dept. of CSE, NIT Warangal 26th July, 2021 6th August, 2021
10. Deep Learning with AI Applications - Online Mode Dr. M. Srinivas, Dept. of CSE, NIT Warangal & Dr. Dr. Puja. S. Prasad, Dept. of CSE, Geethanjali College of Engineering and Technology, Hyderabad 2nd August, 2021 9th August, 2021
11. Data Science and It's Applications with Python - Online Mode Dr. M. Srinivas, Dept. of CSE, NIT Warangal & Dr. D. Kishore Babu, Dept. of CSE, Bapatla Engineering College (A), Bapatla9th August, 2021 19th August, 2021
12. Research Challenges, Issues and Trends in Soft Computing and Machine Learning - Online Mode Dr. Cheruku Ramalingaswamy, Dept. of CSE, NIT Warangal & Dr. N. Satyanarayana, Dept. of CSE, CVR College of Engineering, Ibrahimpatan 9th August, 2021 18th August, 2021
13. Cognitive Intelligence: Foundations & Applications - Online Mode Prof. R. B. V. Subramaanyam, Dept. of CSE, NIT Warangal & Dr. R. Jagadeesh Kannan, School of Computer Science & Engineering, Vellore Institute of Technology Chennai Campus 16th August, 2021 26th August, 2021
14. Convergence of Artificial Intelligence, Machine Learning and Data Science for Engineering Applications - Online Mode Dr. Sanjaya Kumar Panda, Dept. of CSE, NIT Warangal & Dr. Brojo Kishore Mishra, Dept. of CSE, GIET

University, Gunupur, Odisha 16th August, 2021 27th August,2021

15. Contemporary Cryptographic Solutions for IoT based Applications - Online Mode Dr. R. Padmavathy, Dept. of CSE, NIT Warangal & Dr. N. Sasikaladevi, Dept. of CSE/SoC, SASTRA Deemed University, Thanjavur 20th August, 2021 - 30th August, 2021
16. Artificial Intelligence and Machine Learning - Online Mode, Dr. M. Srinivas, Dept. of CSE, NIT Warangal & Pragati Sawant, Dept. of CSIT, Rajarambapu Institute of Technology, Sakharale, Maharashtra 21st August, 2021- 30th August, 2021
17. Machine Learning and Data Science for Engineering Applications - Online Mode Dr. Ilaiah Kavati, Dept. of CSE, NIT Warangal & Dr B. Madhuravani, Dept. of CSE, MLR Institute of Technology, Hyderabad 23rd August, 2021- 2nd September, 2021
18. Deep Learning & Applications (Parallel Architectures) - Online Mode Prof. R. B. V. Subramaanyam, Dept. of CSE, NIT Warangal 23rd August, 2021- 3rd September, 2021
19. Deep Learning and AI Applications - Online Mode, Dr. M. Srinivas, Dept. of CSE, NIT Warangal & Dr. N. Kalyani, Dept. of CSE, G. Narayanamma Institute of Technology and Science (for Women), Shaikpet, Hyderabad 28th August, 2021- 7th September, 2021
20. Machine learning for Data science using Python - Online Mode Dr. M. Sandhya, Dept. of CSE, NIT Warangal & Dr. K. S. Balamurugan, Dept. of ECE, Sasi Institute of Technology & Engineering, Tadepalligudem, 1st September, 2021 - 10th September, 2021
21. Emerging Technologies: AI, Big Data and Block Chain - Online Mode Dr. Cheruku Ramalingaswamy, Dept. of CSE, NIT Warangal & Dr. Shaik Nagul, Dept. of CSE, Lendi Institute of Technology, Vizianagaram 16th September, 2021 25th September, 2021
22. Data Science Using AI and Soft Computing Techniques - Online Mode Dr. Sujit Das, Dept. of CSE, NIT Warangal & Dr. Shakeela Sathish, Dept. of Mathematics, SRM Institute of Science and Technology, Ramapuram, Chennai

18th September, 2021 27th September, 2021

23. Cyber Crimes and Cyber Security - Online Mode Dr. E. Suresh Babu, Dept. of CSE, NIT Warangal & Dr. Bonthu Kotaiah, Dept. of CS & IT, Maulana Azad National Urdu University(MANUU), Hyderabad 20th September, 2021 1st October, 2021
24. Artificial Intelligence and Machine Learning - Online Mode Dr. Sanjaya Kumar Panda, Dept. of CSE, NIT Warangal & Dr. Naveena. C, Dept. of CSE, SJB Institute of Technology, Bengaluru 27th September, 2021 9th October, 2021
25. Python for Machine learning 5 - 9 July, 2021 Dr.M.Sandhya Dr. K. BalaPrakas Rao,CSE
26. Artificial Intelligence & Machine Learning 5 - 9 July, 2021 Dr. Raju Bhukya CSE
27. Python for Scientific Computing 12 - 16 July, 2021 Dr.Balaprakasa Rao Killi Dr. Venkateswara Rao Kagita CSE
28. Python for Machine learning 12 - 16 July, 2021 Dr. M. Sandhya Dr. Y. Sreenivasa Rao CSE, Mathematics
29. Artificial Intelligence Machine Learning using Python 12 - 16 July, 2021 Dr. Raju Bhukya CSE
30. Software Testing Tools 19 - 23 July, 2021 Dr. Sangharatna Godboley CSE
31. Python for Machine learning 19 - 23 July, 2021 Dr. M. Sandhya Dr. Y. Sreenivasa Rao CSE,Mathematics
32. Machine Learning for Data Science using Python 19 - 28 July, 2021 Dr. Venkateswara Rao Kagita Dr.Balaprakasa Rao Killi CSE
33. Next Generation Systems – Machine learning & Deep Learning Applications 26 - 30 July, 2021 Dr. D. A. Vidhate Dr. Raju Bhukya Information Technology Dr. Vithalrao Vikhe Patil College of Engineering, Ahmednagar, Maharashtra and CSE, NITW
34. Soft Computing Techniques for Emerging Applications 26 - 30 July, 2021 Dr. Manjubala Bisi Dr. Sanjaya Kumar Panda CSE
35. Artificial Intelligence & Machine Learning 26 - 30 July, 2021 Dr. Raju Bhukya ,CSE
36. Python for Machine learning 26 - 30 July, 2021 Dr.M.Sandhya Dr.Y.Sreenivasa Rao CSE,Mathematics

37. Cloud and Fog Computing Platforms for IoT Applications 2 - 6 August, 2021 Dr. Rashmi Ranjan Rout Dr. Sanjaya Kumar Panda CSE
38. Python for Machine learning 2 – 6 August, 2021 Dr.M.Sandhya Dr. K. Venkateswara Rao CSE
39. Recent trends in Biomechanics and Bioelectrical Engineering: An Inter-disciplinary Approach 2 - 6 August, 2021 Dr. Palash Mishra Dr. Thyageshwar Chandran Dr. Shivraman Electrical, Biotechnology, Mechanical
40. Python for Machine learning 9 - 13 August,2021 Dr. M. Sandhya Dr. K. Venkateswara Rao Dr. Balaprakasa Rao Killi CSE
41. Python for Machine learning 16 - 20 August,2021 Dr. M. Sandhya Dr. K. Venkateswara Rao Dr. Balaprakasa Rao Killi CSE
42. Python for Artificial Intelligence and Machine Learning Applications 16 - 20 August,2021 Dr. Raju Bhukya CSE
43. Next Generation Computing Artificial Intelligence and Machine Learning Using Python 6 - 10 September, 2021 45 Dr. Raju Bhukya CSE
44. Python for Artificial Intelligence and Machine Learning 6 - 10 September, 2021 Dr. Raju Bhukya CSE
45. Artificial Intelligence Machine Learning & Deep Learning 6 - 15 September, 2021. Dr. Raju Bhukya CSE
46. Python Programming for Artificial Intelligence Applications 20 - 24 September, 2021 Dr. Raju Bhukya CSE
47. Big Data Analytics with Multi-Criteria Decision Making Methods 24 - 28 September, 2021 Dr. Mohuya Byabartta Kar (HIT-K) Dr. Sujit Das (NITW) Heritage Institute of Technology Kolkata (HIT-K) & NITW

Invited Talks

1. Dr. Sujit Das, Optimization Techniques and its real life applications May 23, 2021,FDP on Data Science organized by E&ICT Academy, NIT Warangal and St. Joseph's College of Engineering, Chennai
2. Dr. Sujit Das, Application of Data Science for Industry 4.0 April 30, 2021 Workshop on Industrial Mathematics with Data Science for

Industry 4.0 organized by SRM Institute of Science and Technology, Chennai

3. Dr. Sujit Das, Introductions to Fuzzy logic and Application of Fuzzy logic April 12, 14, 2021 FDP on Optimization Techniques for Engineering Applications organized by E&ICT Academy, NIT Warangal
4. Dr. Sujit Das, Application of Optimization Techniques March 9, 2021 FDP on Machine learning and Optimization for uncertain decision making organized by CCE, NIT Warangal
5. Dr. Sujit Das, Evolutionary Computation and Applications January 9, 2021 FDP on Data Science organized by E&ICT Academy, NIT Warangal and Veltech University
6. Dr. Earnest Paul Ijjina delivered an expert lecture on "Human Action Recognition in Video using Deep Learning" in AICTE sponsored Faculty Development Program on Machine Learning in Computer Vision and Video Processing, organized by Potti Sriramulu Chalavadi Mallikarjuna Rao College of Engineering and Technology on April 8 2021.
7. Dr. Earnest Paul Ijjina delivered an expert lecture on "Auto Encoders and Computer Vision Applications" in Faculty Development Program on Deep Learning and AI Applications, organized by E & ICT Academy, NIT Warangal and Vasavi College of Engineering, Hyderabad on June 29 2021.
8. Dr. Earnest Paul Ijjina delivered an expert lecture on "Auto Encoders and real time Applications" in Faculty Development Program on Deep Learning Algorithms Implementation in Cloud Technology, organized by E & ICT Academy, NIT Warangal and Malla Reddy Engineering College, Hyderabad on July 7 2021.
9. Sangharatna Godboley, Presented a talk at 2nd KLEE Workshop London on the work titled "The KLEEMA Prototype". Sangharatna Godboley, Monika Rani Golla, Arpita Dutta
10. E. Suresh Babu given Expert Talk on “IoT – Introduction, Challenges and Applications & IoT Architecture”, for the AICTE-ISTE Sponsored Six Days Online Induction/Refresher Program on “IoT and Machine Learning”, Organized by Department of Computer Science and Engineering, JNTUA College of

Engineering, Anantapur on 06-Decmeber 2021.

11. E. Suresh Babu given Expert Talk on "Architecture of IoT, Cloud Connectivity in IoT, Protocols on IoT", for the Cloud Computing for Industry4.0, Organized by Department of Computer Science and Engineering, Institute of Aeronautical Engineering, (Autonomous), Dundigal, Hyderabad-500043 on 25th November 2021.
12. E. Suresh Babu delivered Expert Talk on "IoT Architecture in Smart Cities", in AICTE Training And Learning (ATAL) Academy Online Elementary FDP on Internet of Things(IoT) in Smart Cities at Kongunadu College of Engineering and Technology on 22-September 2021
13. E. Suresh Babu delivered Expert Talk on "IoT Vulnerabilities and Issues " FDP on "Contemporary Cryptographic Solutions For Iot Based Applications" organized by Department of Computer science and engineering, School of Computing, SASTRA Deemed University, Thanjavur, in association Electronics & ICT Academy, NIT Warangal on 25th August 2021
14. E. Suresh Babu delivered Series of Expert Lectures on "IoT Architectures, Applications and Challenges", Two-week Online Refresher Course on "Internet of Things" is organizing by the UGC-Human Resource Development Centre, JNTUH, Hyderabad on 09th, 11th, 16th ,21st August 2021.
15. Earnest Paul Ijjina delivered an expert lecture on "Auto Encoders and Computer Vision Applications" on 30th October 2021 in the 10-days FDP on "Data Science and Machine Learning" organized by Department of CS & IT, Maulana Azad National Urdu University, Hyderabad, in Association with E & ICT academy, NIT Warangal, from 20 to 30 Oct 2021.
16. Earnest Paul Ijjina delivered an expert lecture on "Auto Encoders and Computer Vision Applications" on 15th November 2021 in the 10-days FDP on "Recent Trends in Medical Image Processing and Computer vision" organized by Department of CSE, Yeswantrao Chavan College of Engineering (Autonomous), Nagpur, in

Association with E & ICT academy, NIT Warangal, during 8 - 17 November 2021.

17. Earnest Paul Ijjina delivered an expert lecture on "Auto Encoders and Computer Vision Applications" on 8th December 2021 in the 10-days FDP on "AI & Machine Learning for Computer Vision Applications" organized by Department of Electronics & Communication, Shri Ramdeobaba College of Engineering and Management, Nagpur, in Association with E & ICT academy, NIT Warangal, during 3 – 12 December 2021.
18. Earnest Paul Ijjina delivered an expert lecture on "Auto Encoders and Computer Vision Applications" on 17th December 2021 in the 10-days FDP on "Computer Vision and ML Applications" organized by Department of CSE, Raghu Institute of Technology, Visakhapatnam, in Association with E & ICT academy, NIT Warangal, during 10 – 19 December 2021.
19. Earnest Paul Ijjina delivered an expert lecture on "Stacked Auto Encoder and Computer Vision Applications" on 24th December 2021 in the "Mini-Symposium on Reinforcement Learning with Adversarial Autoencoder", organized by Department of CS , Gayatri Vidya Parishad College of Engineering for Women, Visakhapatnam, Department of CSE, Raghu Institute of Technology, Visakhapatnam on 24 December 2021.
20. M. Srinivas delivered an expert lecturer on "AI & ML Algorithms and Applications", One-week Online AICTE sponsored ATAL FDP program on Artificial Intelligence in Electronic Design from the Department of ECS, GITAM (Deemed- to be-University), Hyderabad, Telangana, 10-08-2021.
21. M. Srinivas delivered an expert lecturer on "Research in Machine Learning", Online FDP program, from the Department of CSIT, Rajarambapu Institute of Technology, Maharashtra and E & ICT, NIT Warangal, 25-08-2021
22. M. Srinivas delivered an expert lecturer on "AI & Machine Learning Applications" FIve-day AICTE sponsored STTP FDP program from the Department of Computer Science and Engineering, JNTUK, Kakinada, Andhra Pradesh, 1-9-2021.

23. M. Srinivas delivered an expert lecturer on "Trends and Challenges in Medical Image Analysis through Deep Learning Algorithms" FIve-day AICTE sponsored STTP FDP program from the Department of Electronics and Instrumentation Engineering, VR Siddhartha Engineering College, Andhra Pradesh, 13-9-2021.
24. M. Srinivas delivered an expert lecturer on "Data Science using AI and Machine Learning", Online FDP program, from the Department of CSE, SRM Institute of Science and Technology, Chennai and E & ICT, NIT Warangal, 19-09-2021. M. Srinivas delivered an expert lecturer on "CNN Models", Online FDP program, from the Department of CSE and Biotechnology, NIT Warangal and E & ICT, NIT Warangal, 19-10-2021.
25. M. Srinivas delivered an expert lecturer on "Feature Representation and Classification", Online FDP program, from the Department of CSE, JNTU College of Engineering Anantapur and E & ICT, NIT Warangal, 20-10-2021.
26. M. Srinivas delivered an expert lecturer on "Supervised and Unsupervised Learning Methods", Online FDP program, from the Department of CS & IT, Maulana Azad National Urdu University, Hyderabad and E & ICT, NIT Warangal, 23-10-2021.
27. M. Srinivas delivered an expert lecturer on "Medical Image Processing and Computer vision", Online FDP program, from the Department of CSE, Yeswantrao Chavan College of Engineering (Autonomous), Nagpur and E & ICT, NIT Warangal, 13-11-2021.
28. M. Srinivas delivered an expert lecturer on "SVM Based Music and Speech Classification" FIve-day AICTE sponsored ATAL FDP program from the Department of Computer Science and Engineering, JNTUK, Kakinada, Andhra Pradesh, 30-11-2021.
29. M. Srinivas delivered an expert lecturer on "Unsupervised Learning Methods", Online FDP program, from the Department of Applied Sciences, The NorthCap University, Haryana and E & ICT, NIT Warangal, 1-12-2021. M. Srinivas delivered an expert lecturer on "Deep Learning Models" Five-day AICTE sponsored ATAL FDP program from the Department of Computer Science

and Engineering, JNTUA, Anantapuram, Andhra Pradesh, 7-12-2021.

30. M. Srinivas delivered an expert lecturer on "Business Intelligence & Big Data Analytics" Six-day AICTE sponsored ATAL FDP program from the Department of Computer Science and Engineering, SV College of Engineering (Autonomous), Tirupati, Andhra Pradesh, 10-12-2021.
31. M. Srinivas delivered an expert lecturer on "Introduction to Data Science and Logistic Regression" Five-day AICTE sponsored ATAL FDP program from the Department of Computer Science and Engineering, Indian Institute of Information Technology, Kota, Jaipur, 13-12-2021
32. Sangharatna Godboley, Verifying Reactive Systems via Symbolic Execution with Incremental Deepening, Software Engineering Research in India (SERI), IIT Ropar, 2021.
33. Sangharatna Godboley, Protecting Software Vulnerabilities from Hackers Using Fuzzing, ICMMIT-2022. Plenary Talk, AMITY-RANCHI

Achievements / Outreach activities

1. Sangharatna Godboley, our tool Tracer-X Secured 2nd Rank in RERS (Rigorous Examination of Reactive Systems (RERS))-2020, (a world level Software Testing Tool Competition co-located with ISOLA2020 Greece) (The RERS Challenge 2020 (rers-challenge.org))
2. Sangharatna Godboley, Our tool Tracer-X Secured 6th Rank in TestComp2021, 3rd Intl. Competition on Software Testing held at FASE 2021 in Luxembourg. (World level competition)tracerx.results.Test-Comp21.All – BenchExec results (sosy-lab.org)
3. Sangharatna Godboley, Convener, 13th National Workshop on RECENT TRENDS IN SOFTWARE TESTING (RTST - 2020) from 21st –25th December 2020 organized by Department of Computer Science and Engineering, National Institute of Technology Warangal.
4. Sangharatna Godboley, Appointed as Virtual Conference Management

Chair and Publicity Chair, 14th Innovations in Software Engineering Conference 25 - 27 February 2021 KIIT - Deemed to be University, Bhubaneswar.ISEC 2021 - KIIT Deemed to be University, Bhubaneswar (acm.org)

5. Sangharatna Godboley, Joxan Jaffar, Rasool Maghareh, Arpita Dutta, Toward Optimal MC/DC Test Case Generation, 30th ACM SIGSOFT International Symposium on Software Testing and Analysis (ISSTA), 2021 (Core-A)
6. Sangharatna Godboley received all three ACM badges **Artifact Available, Functional, and Reusable Badges** in Artifact 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".
7. Sangharatna Godboley contributed to work titled "Tracer X: Dynamic Symbolic Execution with Interpolation" presented at 2nd KLEE Workshop London. Joxan Jaffar, Rasool Maghareh, Sangharatna Godboley, Xuan-Linh Ha.
8. Sangharatna Godboley, Co-Convener for Training Programme on Python Boot Camp (February 22, 2021 to March 5, 2021) for DRDO organized by E&ICT NITW.
9. E. Suresh Babu acted as Session Chair for the International Conference on Intelligent Systems and Sustainable Computing (ICISSC-2021) in Virtual mode scheduled on September 24-25, 2021 at Malla Reddy University, Hyderabad.
10. E. Suresh Babu acted as Session Chair for the 2nd International Conference on Computer Vision, High Performance Computing, Smart Devices and Networks (CHSN-2021), 20-21 August, 2021, Organized by Department of Computer Science and Engineering, Department of Computer Science and Engineering, Jawaharlal Nehru Technological University Kakinada, Andhra Pradesh, India.
11. Dr. R. Padmavathy, Dept. of CSE, NIT Warangal & Dr. Sukhwinder Sharma, Dept. of CSE, Mangalore Institute of Technology and Engineering, Mangalore, Blockchain Technology - Applications, Issues and Challenges - Online Mode,

12. Dr. R. Padmavathy Dept. of CSE, NIT Warangal & Dr. P. Shanthi Bala, Dept. of CS, Pondicherry University, Puducherry, Cyber Security Principles and Defensive Mechanisms - Online Mode, 21st March, 2022,30th March, 2022 21st February, 2022 2nd March, 2022
13. Dr Sujit Das delivered a talk on Data Science and its applications on March 10, 2022 in a national level workshop on Artificial Intelligence and Machine Learning organized by Assam Royal Global University.
14. Dr Sujit Das delivered a talk on Optimization Methods and Applications on Feb, 21, 2022 in an online FDP on Data Science and Its Applications organised by Electronics & ICT Academy, NIT Warangal.
15. Dr Sujit Das delivered a talk on Fundamentals of AI on Feb, 28, 2022 in an online FDP on Optimization Techniques in ML and AI organised by Electronics & ICT Academy, NIT Warangal.
16. Dr Sujit Das delivered a talk on Introduction to Fuzzy Sets and Fuzzy Logic on Jan. 26 and 27, 2022 in an online FDP on Optimization Techniques: Theory, Practice, And Emerging Applications organised by Electronics & ICT Academy, NIT Warangal.
17. Sangharatna Godboley, A tutorial session on EXTRACTION OF DEAD ATOMIC CONDITIONS FOR SMART CONTRACTS, Tutorial, 15th Innovations in Software Engineering Conference (ISEC), 2022.
18. Sangharatna Godboley, Board of Studies (BoS) Member , G.H. Raisoni Institute of Business Management, Jalgaon.Maharashtra (From January 2021).
19. E. Suresh Babu given Expert Lecture on “Cyber Security Issues in Financial Intuitions”, Cyber Security Awareness Programme, Organized by State Bank of India, Regional Office, Warangal on 24th November-2021

Publications

1. 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 (2021): Volume 66, October 2021, 101064 (IF: 1.271, SCIE)

2. Saha, M., Panda, S.K. & Panigrahi, S. A hybrid multi-criteria decision making algorithm for cloud service selection. Int. j. inf. tecnol. 13, 1417–1422 (2021). https://doi.org/10.1007/s41870-021- 00716-9
3. Ashish Undirwade, Sujit Das, Image Anonymization Using Deep Convolutional Generative Adversarial Network, Machine Learning Algorithms and Applications, John Wiley & Sons, 305-330
4. G Punnam Chander, Sujit Das, Multi-attribute decision making using interval-valued pythagorean fuzzy set and differential evolutionary algorithm, IEEE International Conference on Fuzzy Systems (FUZZ-IEEE), 2021, 1-6
5. Aguru Aswani Devi, E. Suresh Babu, Dr. Ilaiah Kavati, "Smart Contract based Next-Generation Public Key Infrastructure (PKI) using Permission less Blockchain" presented in 17th International Conference on Information Assurance and Security (IAS), December-2021 and published in Proceedings will be published by Springer in the Lecture Notes in Networks and Systems", which is currently indexed by SCOPUS, [CS10]
6. E. Suresh Babu, M. Srinivasa Rao, Satuluri Naganjaneyulu, "Secure Exchange And Effectual Verification of Educational Academic Records Using Hyperledger Fabric Block Chain System" Accepted in International Journal of Ad Hoc and Ubiquitous Computing, Inderscience, [SCI, Scopus Indexed], March, 2022. [JS15]
7. E. Suresh Babu, BKN Srinivasarao, Ilaiah Kavati, M. Srinivasa Rao, "Verifiable Authentication and Issuance of Academic Certificates using Permissioned Blockchain Network", Published in International Journal of Information Security and Privacy (IJISP), Volume: 16, Issue: 1, Pages: 1-24 Publisher: IGI Global, January -2022, [ESCI, Scopus Indexed] [JS14]
8. Ilaiah Kavati, A. Mallikarjuna Reddy, E. Suresh Babu, K. Sudheer Reddy, RamalingaSwamy Cherukua, "

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DEPARTMENT OF BIOTECHNOLOGY

The Department of Biotechnology of NIT Warangal was established in 2006. The program was initiated with a 4-year B.Tech in Biotechnology degree. Subsequently, in the year 2009, the Department welcomed candidates for pursuing PhD in Biotechnology. In 2020, M.Tech in Biotechnology program was introduced in the Department. The Department also includes Postdoctoral fellows pursuing their research in various areas.

There are twenty dedicated faculty members who have expertise in diversified research areas of Biotechnology. The Department aspires to become a centre imparting superior education and research in Biotechnology. It also promotes entrepreneurship and industrial collaborations for enhancing the quality of human life. The goal of the Department in generating a pool of highly skilled individuals, at various levels, comparable to international standards, is being achieved by imparting quality education and training.



Faculty Profile

S. No.	Name of the Faculty and Designation	Highest Qualification and Date of Joining	Research Interests	Photograph
1	Dr. Korrapati Narasimhulu Professor and HOD	Ph.D 17-01-2008	Environmental Biotechnology, Modelling & Simulation of Bioprocesses, Biofuels & Bioenergy, Systems Biology	
2	Dr. Sreenivasa Rao Parcha Professor	Ph.D 17-07-2008	Stem Cell Engineering, Downstream Processing and Enzyme Engineering	
3	Dr. R. Satish Babu Professor	PhD 29-03-2012	Bioprocess Engineering Environmental Biotechnology Modeling and Simulation of Bioprocesses Metabolic Engineering Bioinformatics	
4	Dr. Onkara Perumal. P Associate Professor	PhD 30-11-2006	Bioinformatics; Computational Biology; Functional Genomics; Metabolic Disorders	
5	Dr. Amitava Bandhu Associate Professor	PhD 17-12-2013	Studies on gene regulation in Mycobacteria	

6	Dr. Rama Raju. B Associate Professor	PhD 24-09-2013	Metabolic Engineering, Bio fuels and Biomaterials	
7	Dr. V. Kohila Associate Professor	Ph.D 24-09-2013	Protein Engineering, Immunology	
8	Dr. Asim Bikas Das Associate Professor	Ph.D. 08-10-2013	Network Biology, Cancer Genomics	
9	Dr. Urmila Saxena Associate Professor	PhD 10-10-2013	Statistical Analysis of Biological Data for Biomarker Identification; Medical Biosensors; Nanobiotechnology	
10	Dr. Prakash Saudagar Associate Professor	PhD 30-09-2013	Molecular Cell Biology & Protein Biochemistry, Molecular Approach to Infectious Diseases, Molecular & Biochemical Parasitology	
11	Dr. Perugu Shyam Assistant Professor	PhD 09-04-2018	Bioinformatics, Systems biology, Cancer biology, Molecular Dynamics & Simulations, Drug Design and Discovery, Machine Learning, Data Science.	

12	Dr. M. Jerold Assistant Professor	PhD 13-04-2018	Biofuels & Bioenergy; Bioprocessing; Biosorption; Wastewater Treatment; Bioseparation; Algal Biotechnology ; Biopolymer; Biorefineries; Biomass Valor	
13	Anbumathi P , Assistant Professor	PhD 20-04-2018	Systems Biology	
14	Dr. Rathnaprabha D Assistant Professor	PhD 09-04-2018	Plant Biotechnology	
15	Dr. Soumya Lipsa Rath Assistant Professor	PhD 20-11-2019	Computational Biophysics	
16	Dr. Surajbhan Sevda, Assistant Professor	PhD 16-12-2019	Environmental Bioprocess, Bioelectrochemical System	
17	Dr. Priya Assistant Professor	PhD 07-12-2019	Cell and molecular biology; epigenetics	

18	Dr. Thyageshwar Chandran Assistant Professor	PhD 04-11-2019	Structural Proteomics; Molecular Dynamics of Macromolecules; Molecular Biophysics	
19	Dr. Chockalingam S Assistant Professor	PhD 22-11-2019	Cancer biology; Cancer cell signaling; Cancer stem cell biology	
20	Dr. Ashish A Prabhu Assistant Professor	PhD 03-07-2020	Bioprocess engineering and Metabolic Engineering	

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Survey' (IcWILL - 2022), 8th – 9th March 2022, organised by Internal Complaints Committee, NIT Warangal, India

5. G Sai Bhavani, Anbumathi P. 2021. Systems Modelling and Analysis to Explore the Role of p53 and Mdm2 in TGFβ Induced Epithelial to Mesenchymal Transition. IITM EBI Winter School 2021 , 6th – 9th December 2021, jointly organised by BioModels (EMBL-EBI), IBSE RBC-DSAI from Indian Institute of Technology Madras (IITM)
6. G Sai Bhavani, Anbumathi P. 2021. Molecular Interaction Map of TGFβ Induced Epithelial to Mesenchymal Transition in Breast Cancer. 6th Disease Maps Community Meeting held on 29th – 30th November 2021 hosted by the Department of Systems Biology and Bioinformatics, University of Rostock, Germany
7. G Sai Bhavani, Anbumathi P. 2021. Exploring the Contributions of Women Scientists in the 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
8. G Sai Bhavani, Anbumathi P. 2021. Exploring the Contributions of Women Scientists in the 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.
9. 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
10. G Sai Bhavani, Anbumathi P. 2021. Systems Modeling and Analysis of TGF - β Induced Epithelial to Mesenchymal Transition in Cancer Metastasis. National Conference on Biological, Biochemical, Biomedical, Bioenergy and environmental Biotechnology held on 29th -30th January, 2021, organized by Department of Biotechnology, NIT Warangal, India
11. 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.

12. M Arun Kumar, Dr Perugu Shyam. 2022. ROLE OF SELENIUM NANOPARTICLE IN KESHAN DISEASE (Abstract ID – 184993). INTERNATIONAL CONFERENCE ON 'WOMEN IN LEARNING AND LEADERSHIP' (IcWILL - 2022), 8th – 9th March 2022, organised by Internal Complaints Committee, NIT Warangal, India.
13. Md. Momina Shanwaz, Dr. Perugu Shyam. 2022. Barriers to women in science, 2022. INTERNATIONAL CONFERENCE ON 'WOMEN IN LEARNING AND LEADERSHIP' (IcWILL - 2022), 8th – 9th March 2022, organised by Internal Complaints Committee, NIT Warangal, India.
14. Md. Momina Shanwaz, Dr. Perugu Shyam. 2022. Green synthesis of silver nanoparticles from Vitex negundo (Paper Id: ICEAT22016). 3rd INTERNATIONAL CONFERENCE ON ENGINEERING AND ADVANCEMENT IN TECHNOLOGY (ICEAT 2022), 8-9th April, 2022, organized by Malla Reddy Institute of engineering and technology college, Hyderabad.
15. Md. Momina Shanwaz, Dr. Perugu Shyam. 2021. Women contribution towards Bioinformatics (Paper Id: 184476). INTERNATIONAL CONFERENCE ON WOMEN EMPOWERMENT IN SCIENCE AND TECHNOLOGY' (ICWEST - 2021), 8th – 10th March 2021, organised by Internal Complaints Committee, NIT Warangal, India.
16. Md. Momina Shanwaz, Dr. Perugu Shyam. 2021. Insilco analysis of biologically active plant products against cancer causing agents. Two-Day Online National Conference on Biological, Biochemical, Biomedical, Bioenergy, and Environmental Biotechnology (NCB4EBT 2021), 29-01-2021 to 30-01-2021 organized in online mode by NIT Warangal, Department of Biotechnology.

Funded Research Projects

S. No	Title & Name(s) of PI	Total Amount sanctioned (Rs in Lakhs)	Funding agency	Project No.	Installment received in 2021-2022
1	Transcriptome to graph embedding: Development of a framework for predicting stage-specific biomarker in lung cancer. PI Name: Asim Bikas Das	6.60	SERB (MATRICS)	MTR/2021/000258	2.20
2	Metabolic engineering of Pichia pastoris cell factory for efficient valorization of food waste in to citramalic acid: A biorefinery approach toward sustainable biopolymer production PI Name: Ashish A Prabhu	32.09	DST-SERB (SRG)	SRG/2021/000485	24,59,5590
3	Recovery of Ammonia and Phosphorous Accompanied by Microbial ProteinProduction Using Electrochemically and Bioelectrochemically Driven Process from Human Urine PI Name: Dr Surajbhan Sevda	24.27 Lac	DST-SERB (SRG)	SRG/2021/001460	16,64,740
4	To develop a strategy for drug repurposing studies to combat amr using bioinformatics tools for alternative lead molecules focusing on inhibitor resistant tem (/rt) Beta-lactamase PI Name: Dr. Devjani Banerjee Co PI Name: Dr. Debjani Arun Chakraborty Co PI Name: Dr. S. L. Rath PI Name: Dr. Himanshu Pandya Co-PI: Dr. Rupal Patel Co-PI: Dr. Naimika Patel	91.69 Lakhs	GSBTM, (DST, Government of Gujarat)	GSBTM/JD(R&D)/618/21-22/0Q003679	37 Lakhs [Received by PIs]

Books and Book Chapters

1. Narasimhulu, K. (2022). Removal of Persistent Organic Pollutants from Wastewater by Combined Bio and Nanotechnology. Innovations in Microbiology and Biotechnology Vol. 5, 70–81. https://doi.org/10.9734/bpi/imb/v5/15793D.
2. Narasimhulu, K. (2022). Role of Metabolic Engineering in the Synthesis of Plant Secondary Metabolites. Innovations in Microbiology and Biotechnology Vol. 5, 60–69. https://doi.org/10.9734/bpi/imb/v5/2109A.
3. Bhaskar, B., Rao, P.S., Kasoju, N., Nagarjuna, V., Baadhe, R.R." Biomaterials in Tissue Engineering and Regenerative Medicine" , Springer.
4. Srividya, Adityah Ganesh and Rathnaprabha D "Micro and Nano Plastics on Plant functionalities" Published in Springer Nature
5. Asim Bikas Das*, Network Biology for Biomarker Discovery and Therapy in Cancer, Genomic and Epigenomic Biomarkers of Toxicology and Disease: Clinical and Therapeutic Actions, (Published by Wiley), (2022), https://doi.org/10.1002/9781119807704.ch8
6. Ashish A Prabhu, Biological production of xylitol: A process development approach, Innovations in Fermentation and Phytopharmaceutical Technologies, Published by Elsevier. (2022)
7. S. L. Rath, S Mohanty, D Tripathy. Biofertilizers: A Representative Illustration of Plant-Microbe Interaction.Agriculturally Important Microorganisms:Mechanisms and Applications for Sustainable Agriculture (1st ed.). CRC Press. https://doi.org/10.1201/9781003245841
8. Prabahar, Archana, and Anbumathi Palanisamy. "A Hybrid Protocol for Identifying Comorbidity-Based Potential Drugs for COVID-19 Using Biomedical Literature Mining, Network Analysis, and Deep Learning." Methods in molecular biology (Clifton, N.J.) vol. 2496 (2022): 203-219. doi:10.1007/978-1-0716-2305-3_11

9. Garlapati VK, Sharma S, Surajbhan Sevda (2021) Photosynthetic biogas upgrading - 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,ISBN: 978-0-12-822808-1 Page no:383-409. https://doi.org/10.1016/B978-0-12-822808-1.00014-3
10. Addy R, Yadav A, Kumar M, Ali U, Ankenapally A, Garlapati VK, Bhadra S, Surajbhan Sevda (2022) Bioelectrochemical methods in Biomolecular Analysis. In: Nanobioanalytical Approaches to Medical Diagnostics (P Maurya & P Chandra, eds), Elsevier. ISBN: 9780323851657, Page no:65-104. https://doi.org/10.1016/B978-0-323-85147-3.00011-6
11. Maddirala Shivani, Varsha K M, Motru Vineela, Surajbhan Sevda. Bioelectroremediation of Wastes using Bioelectrochemical System. In Scaling Up of Microbial Electrochemical Systems 1st edition. (Ediator: Dipak Jadhav Soumya Pandit S. Gajalakshmi Maulin Shah), Elsevier, 2022, ISBN: 9780323907651, Page no: 103-115.
12. Sudipa Bhadra, Surajbhan Sevda. Use of Bio-Electrochemical System For Industry Effluents And Resource Recovery. In "Novel Approaches towards Wastewater Treatment and Resource Recovery Technologies (Ed. By Arvind Kumar Mungray_Elsevier)", 2022 (ISBN: 9780323906272), Page no: 109-130.
13. Santanu Sasidharan and Prakash Saudagar*. "Prediction, validation, and analysis of protein structures: A beginner's guide."Advances in Protein Molecular and Structural Biology Methods, pp. 373-385. Academic Press, 2022.
14. Santanu Sasidharan, Niharika Nag, Timir Tripathi, and Prakash Saudagar*. "Experimental methods to study the thermodynamics of protein–protein interactions." In Advances in Protein Molecular and Structural Biology Methods, pp. 103-114. Academic Press, 2022.

Conferences, workshops, FDPs, Webinars organized

1	A 5 day FDP on "Advances in Biotechnology and Bioinformatics (ABB-2021)" from 22-03-2021 to 26-03-2021 funded by CCE, NITW was coordinated by Dr.K.Narasimhulu and Dr.Onkara Perumal P
2	A Two-Day Online National Conference on Biological, Biochemical, Biomedical, Bioenergy, and Environmental Biotechnology (NCB4EBT-2021) from 29th – 30th January, 2021 funded by CCE, NITW was coordinated by Dr.K.Narasimhulu and Dr.Thyageswar Chandran
3	6 days online Faculty Development Programme (FDP) on "Protein- Receptor Binding Chemistry" from 17th-22nd May, 2021 sponsored by The M S University of Baroda, Gujarat in collaboration with National Institute of Technology Warangal, sponsored by Gujarat State Biotechnology Mission (GSBTM),Department of Science and Technology (DST), Government of Gujarat was coordinated by Dr. S. L. Rath, Dr. D.Chakraborty and Dr. R Vijayavargia
4	10 days Faculty development program on Application of Artificial Intelligence & Machine Learning in Bioinformatics from 15th - 25th March, 2022, organized by Department of Biotechnology, E&ICT, NITW was coordinated by Dr Perugu Shyam
5	Two-Day National Conference on Advancements in Biotechnology on 29th and 30th January,2022 was coordinated by Dr Perugu Shyam
6	Recent Developments in Computational Biology from 21st February – 2nd March 2022 was coordinated by Dr. Perugu Shyam
7	Data Analytics and its Application in Healthcare from 18th - 27th February, 2022 was coordinated by Dr Perugu Shyam, & Dr. Ramesh Athe
8	AI and Machine Learning for Biomedical Applications from 18th – 27th October, 2021 was coordinated by Dr. M. Srinivas, & Dr. P. Shyam
9	Advances in Bioinformatics - Online Mode from 10th – 15th May, 2021 was coordinated by Dr. Perugu Shyam

10	Faculty Development Programme (FDP) on Data Analytics: Methods and Applications in Healthcare from 22 - 31 Aug, 2022 Department of Data Science and Intelligent Systems. In association with Electronics & ICT Academy, NIT Warangal was coordinated by Dr. Perugu Shyam

Guest talks and Webinars delivered

1. Dr.Perugu Shyam, Delivered Expert talk on Current trends in Drug Discovery in "International Conference on New Horizons and Trends in Chemical Sciences" organized by the Department of Chemistry, Dada Ramchand Bakhru Sindhu Mahavidyalaya, Nagpur in academic association with the Indian Society of Analytical Scientists (ISAS).
2. Dr.Perugu Shyam, Delivered invited lecture on Data Analysis-Univariate and bi-variate analysis and hands on Practice, Correlation on 11th March, 2022 for 2 hrs (4 - 6 PM). In 10 days online FDP on "Understanding Research and Statistical Analysis Using SPSS'' from 07th – 16th March, 2022 under E&ICT, NIT Warangal and IIIT Tiruchirappalli.
3. Dr.Perugu Shyam, Delivered expert lecture on Genomics and Beyond in National workshop on Bioinformatics and Tools: Theory and Practice from 03rd - 04th March 2022 organized by Department of Microbiology, Andhra University, Visakhapatnam on 03/03/2022.
4. Dr.Perugu Shyam, Delivered eight lectures in FDP on Application of Artificial Intelligence and Machine Learning in Bioinformatics from 15th - 24th March 2022 conducted by Department of Biotechnology, E&ICT, NITW.
5. Dr.Perugu Shyam, Delivered twelve lectures on Data Analytics and its Application in Healthcare from 21st February - 02nd March, 2022, Department of Biotechnology and E&ICT, NITW.
6. Dr.Perugu Shyam, Delivered sixteen lectures Ten Day FDP online on Recent Developments in Computational Biology - Online Mode. 21st February – 2nd March 2022 Dept. of Biotechnology and E&ICT, NIT Warangal.
7. Dr.Perugu Shyam, Delivered lecture

on "Emergence of the Omicron (B.1.1.529) and Its Impact on Human Population" on 15/12/2021 organized by The Federation of Telangana Chambers of Commerce and Industry (FTCCI) Hyderabad.

8. Dr. Perugu Shyam, Assistant Professor, delivered an Expert Lecture in a "Online Faculty Development Programme (FDP) on Recent Trends in Medical Image Processing and Computer vision" organized Department of Information Technology Yeshwantrao Chavan College of Engineering (Autonomous), Nagpur in association with NIT Warangal on 08th – 17th November 2021.
9. Dr. Perugu Shyam, Assistant Professor, delivered an Expert Lecture in an "National level five day Faculty Development Program on Advancements in Biochemistry and Allied Sciences" Under DBT-Star College Scheme Organized by Department of Biochemistry, Bhavan's Vivekananda College of Science , Humanities & Commerce, Sainikpuri, Secunderabad on 23rd – 27th November, 2021
10. Dr. Perugu Shyam, Assistant Professor, Guest of Honor, Delivered an Expert Lecture in an Webinar on "OMICRON - All You Need To Know" Organized by The Federation of Telangana Chambers of Commerce and Industry (FTCCI), Hyderabad on 15th December, 2021.
11. Dr. Perugu Shyam, Assistant Professor, Guest of Honour, Delivered an Expert Lecture in an Workshop on "Recent advances in research in the area of AI and ML with reference to applications in science and engineering " Organized by Skill Development Centre, Adhikavi Nannaya University, Rajamandri on 28th December, 2021.
12. Dr. S. L. Rath delivered a lecture in an online FDP on ADVANCEMENTS OF DIGITAL HEALTH AND MEDICAL INNOVATIONS DURING PANDEMIC Sponsored by AICTE Training and Learning (ATAL) Academy on "Computer Simulations to expedite our understanding of COVID-19" on 7th December, 2021
13. Dr. S. L. Rath delivered a lecture on in a 10-Days Workshop (IDP, OHEPEE supported) on Basic Phylogeny, Homology Modeling

Molecular Docking Organised by Department of Biotechnology, Maharaja Sriram Chandra Bhanja Deo University, Baripada, Mayurbhanj, "Computer Simulations to understand protein dynamics" on 27th Nov, 2021

14. Dr. S. L. Rath delivered a lecture in an Online FDP on Basics of Bioinformatics, Organized by E & ICT Academy, NITW in association with University College of Engineering BIT Campus on "Protein Secondary structures" on 27th May, 2021
15. Dr. S. L. Rath delivered a lecture in an Online FDP on Basics of Bioinformatics, Organized by E & ICT Academy, NITW in association with University College of Engineering BIT Campus on "Ramachandran Plot and propensity" on 28th, May 2021
16. Dr. S. L. Rath delivered an online lecture in the online FDP on "Protein-receptor Binding Chemistry" conducted by The MSU Baroda and NIT Warangal "Molecular Modelling and Simulation on 20th May, 2021.
17. Dr. S. L. Rath delivered an online lecture in an Online FDP on Computational Techniques In Chemical Analysis And Quantitative Biology Organized by E & ICT Academy, NIT Warangal In association with IQAC, Vaagdevi Degree & PG College, Hanumakonda (Sponsored by Ministry of Electronics and Information Technology (MeitY), GOI) on "Molecular Docking-Hands on Session on Protein-Protein and Protein-Ligand Docking" on 25th September, 2021.
18. Dr. Urmila Saxena delivered an online lecture in an Online FDP on Computational Techniques In Chemical Analysis And Quantitative Biology Organized by E & ICT Academy, NIT Warangal In association with IQAC, Vaagdevi Degree & PG College, Hanumakonda (Sponsored by Ministry of Electronics and Information Technology (MeitY), GOI) on "Nanotechnology and its applications in health science and medicine" on 28th September, 2021.
19. Dr. Surajbhan Sevda. Application of Enzymes in Food processing Industries. Faculty Development Program at Center of Innovative and Applied Bioprocessing (CIAB), Mohali (March 21 – April 8, 2022) (Under DBT-GOI Skill Development Program) (24 March 2022).
20. Dr. Rama Raju B, delivered a keynote lecture on "Role of

metagenomics in prospecting novel cellulases for bioethanol production" in "Challenges in the Production of 2G Bioethanol" 10.08.2021, Department of Chemical Engineering, IIT Thirupathi, HPCl, India.

21. Dr. Rama Raju B, delivered a keynote lecture on "Role of metagenomics in prospecting novel cellulases for bioethanol production" in AICTE-FDP "Functional Metagenomics and Bioprocessing of Therapeutic Enzymes" 27.07.2021, Department of Biotechnology, SVEC, Chennai.
22. Dr. Prakash Saudgar, delivered a invited talk on "Studies on L. donovani tyrosine aminotransferase as potential drug target" in "National Conference on Computational and Biochemical Drug Discovery" organised by IIT (BHU) Varanasi jointly with Bioinformatics and Drug Discovery Society in online mode during 11-12 September 2021.
23. Dr. Jerold delivered an Invited guest lecture on World Health Day at, Department of Biotechnology and Biochemical Engineering, JCT College of Engineering and Technology, Pichanur, Coimbatore-641 105, Tamilnadu, India.
24. Dr. Jerold delivered an Invited guest lecture on a FDP program on "Nanotechnology in Health, Food and Environment" on the topic "Valorization of Agrowaste for Green Nanomaterials Developments: Concepts and Applications" at Department of Biotechnology, Kumaraguru College of Technology, Coimbatore – 641049, Tamilnadu, India.
25. Dr. Jerold delivered an Invited guest lecture on the topic entitled "Overview on Biosorption Technology for Wastewater Treatment: Trends and Developments" on a Online Faculty Development Programme "Applications of Remote Sensing and GIS for Water Resource Management" at Department of Civil Engineering, Vel Tech University, Chennai, Tamilnadu, India.
26. Dr. Anbumathi P delivered an invited lecture (virtual mode) on "Introductory overview of computational systems biology". Cauvery college for Women, Annamalai Nagar, Trichirapalli - 620018. October 25, 2021

27. Dr. Anbumathi P delivered an invited lecture (virtual mode) on "Computational Systems Biology. Institute of Engineers (India), Trichirapalli Local Centre, BHEL Main office road, Trichirapalli -620014. July 10, 2021
28. Dr. Anbumathi P Delivered lectures for an online FDP on "Bioinformatics: Algorithms, Application and Tools" conducted between 16 May 2022-25 May 2022 by University College of Engineering BIT Campus, Trichy and E&ICT, NIT Warangal.
29. Dr. Anbumathi P Delivered lectures for an online FDP on "Computational Biology" conducted between 13 July 2022-22 July 2022 by University College of Engineering BIT Campus, Trichy and E&ICT, NIT Warangal.
30. Dr. Anbumathi P Delivered lectures for an online FDP on "Recent Trends in Bioinformatics" conducted between 26 Aug 2022-4th Sep 2022 by University College of Engineering BIT Campus, Trichy and E&ICT, NIT Warangal.

PhD completed

1. R Kowshik Aravilli (Roll No. 714042) completed his Ph.D with the title "Heuristics in role of Human Glutathione S-transferase Mu 1 as Nitric Oxide Carrier and its Engineered Variants for Enhanced Activity" under the guidance of Dr. V. Kohila in October, 2021.
2. Aditya Velidandi (Roll No 714156.): In vitro biological and catalytic applications of nanoparticles synthesized from Annona muricate leaf extract (Degree Awarded 30th September, 2021) under the guidance of Dr.Rama Raju.B
3. Ninian Prem Prashant Pabbathi (Roll No 715075): Isolation, cloning, and characterization of buffalo rumen metagenome derived Cellulase (Cel-3.1) and its application in biomass saccharification (Degree Awarded on 12th August, 2021), under the guidance of Dr.Rama Raju.B
4. Santanu Sasidharan (716182), Thesis title: "Genetic and chemical validation of Leishmania tyrosine aminotransferase as a potential drug target", under the guidance of Dr. Prakash Saudagar in May, 2022.

Awards, Outreach Activities, Achievements and Distinctions of Faculty members

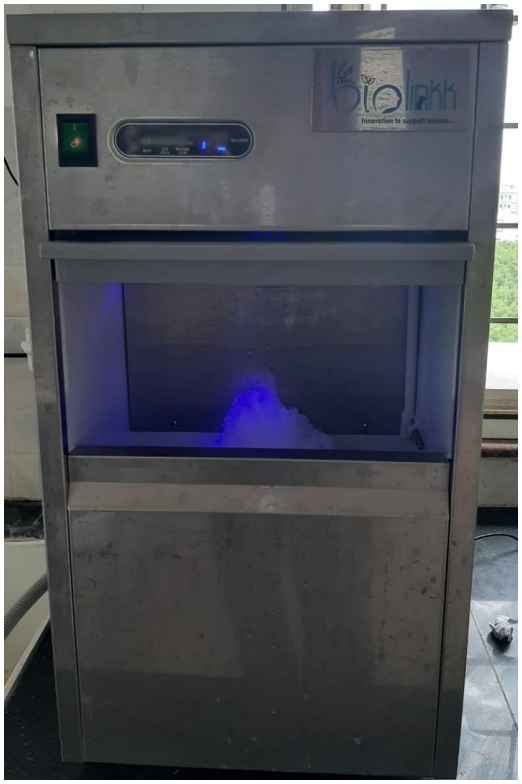
1. Dr.Perugu Shyam, Chief guest and Keynote speaker on "Indian Ancestral Traditions and Practices for the Conservation/ Protection of Environment" on eve International Environmental day of 05th June 2022 at District Science Center, Hanamkonda.
2. Dr. Perugu Shyam, Assistant Professor, has been awarded as BEST RESEARCHER AWARD by VDGOOD PROFESSIONAL ASSOCIATION, Chennai, India on 21- 22 may,2021.
3. Dr. Perugu Shyam, Assistant Professor, Handled the two days hands on session in an "International Conference on Biotechnology and Interdisciplinary Technologies (iCBIT-2021)" Organized by Chaitanya Bharathi Institute of Technology, Hyderabad, Telangana, Hyderabad on 10th & 11th November, 2021.
4. Dr. Perugu Shyam, Assistant Professor, Appointed as an BOS member for Zoology, Pingle Govt College for Women(Autonomous), Warangal from 15/12/2021 (AY 2021-22).
5. Dr. Perugu Shyam, Assistant Professor, Chaired the session; Intelligent Interaction and Visualization (Session ID: S2-A) in "The 13th International Conference on Intelligent Human Computer Interaction (IHCI-2021)" organized by Kent State University, Kent, Ohio, 44242, USA, on December 20th - 22nd, 2021.
6. Dr. Perugu Shyam, Content Translated for Science Week Festival (SWF) during 22nd - 28th February as Part of Azadi Ka Amrith Mahotsav; Translation of English Material into Colloquial Telugu 10/02/2022, DST-Scope, NITW.
7. Dr. Perugu Shyam, Delivered Expert talk delivered on వృక్ష, జంతు శాస్త్రంలో సాంకేతిక పోకడలు (Technological developments in Plant and Animal Sciences) on 27th January 2022 conducted by DST-Scope, NITW.
8. Dr. Perugu Shyam, Delivered Expert talk delivered on నిత్యజీవితంలో సూక్ష్మజీవుల పాత్ర (Role of Microorganisms in our Daily Life)

3.00 PM, Aug 30, 2021, conducted by DST-Scope, NITW.

9. Dr. Perugu Shyam, Jury Member, DST Inspire awards - Inspire MANAK DLEPC (11/11/2021) for warangal rural district.
10. Dr. Perugu Shyam, Jury Member, DST Inspire awards - MANAK DLEPC (30/11/2021) for warangal urban district.
11. Dr. Perugu Shyam, Conducted a Blood grouping and covid awareness camp at Government High School, Kazipet on 23/10/2021
12. Dr. Perugu Shyam, Assistant Professor, appointed as Doctoral Advisory Committee Member(Ms.Sharmila) at Vellore Institute of Technology, Vellore, Tamil Nadu, India.
13. Dr.Perugu Shyam, Judge/Jury member for Drug Discovery & Development Workshop 2022 from March 15th - April 04th, 2022, organized by FABA (Federation of Asian Biotech Associations).
14. Dr. Rama Raju.B as part of outreach activity delivered a lecture on "Biomolecules and their importance" in Telugu language on 28.09.2021 as part of DST-Vigyan Prasar SCOPE- Telugu Scheme.
15. Dr. M. Jerold, Assistant Professor, appointed as Doctoral Advisory Committee Member at Vellore Institute of Technology, Vellore, Tamil Nadu, India.

New Lab Equipments/software/Workstations Installed

1. Purchased & Installed UV Transilluminator for genetic engineering laboratory.
2. Purchased & Installed Ice flaking machine in biochemistry laboratory.
3. Schrodinger software purchased and installed for the Bioinformatics laboratory.
4. Purchased & Installed water purification system in genetic engineering laboratory.






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EVOQUA

Department Association/Students Clubs Activities

Technical Association of Biotechnology (TAB)2021-22

1. School Visit (23rd October 2021)

On 23rd October 2021, 9 students from NIT Warangal visited the Government Girls High School, Kazipet. The volunteers from the Technical Association of Biotechnology were: Supreetha, Karan, Siri poojitha, Manasa chava, Sai Charan, Himanshu, Sai Teja, Aryan and Sirisha.

Understanding the importance of the youth in building a smart future for India, TAB NITW volunteers interacted with around 150 students of 9th and 10th class and had a lively discussion about science, innovation and biotechnology. Students understood how vaccines work, GM crops, insulin, cloning, and cancer. The students were fascinated by how forensic scientists use DNA samples to solve crimes. The students also saw a live experiment about how to determine blood groups.

The students and teachers at the school greatly appreciated the session conducted.





2.

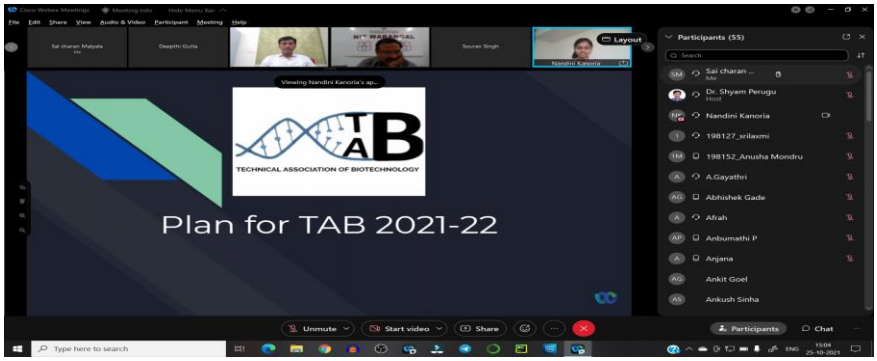
3. Inaugural Ceremony (25th October 2021)

The new executive body of the Technical Association of Biotechnology 2021-2022 was inducted in the inaugural ceremony held on 25th October 2021. The ceremony was a strong start for the new executive body in the presence of dignitaries such as Prof. N V Ramana Rao, Director NITW as the chief guest, Dr. K Thangaraj, Director of Centre for DNA Fingerprinting and Diagnostics, Hyderabad and Dr. Ramana Murthy J V, Dean Student Welfare, NITW as guests of honour.

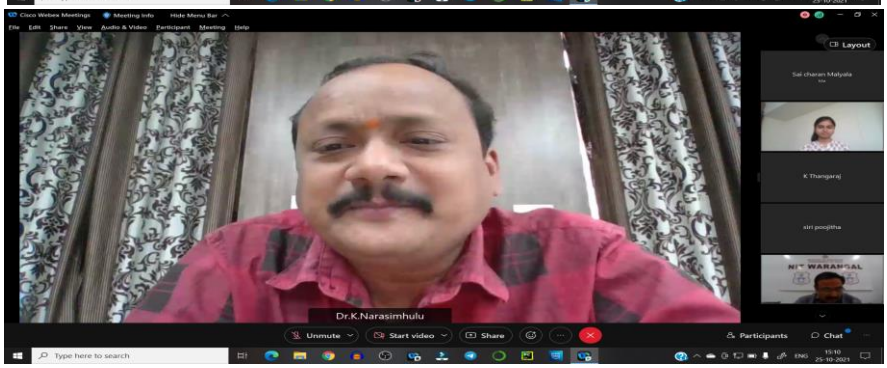
The Head of department of biotechnology, Dr. K Narasimhulu, The Faculty Advisor of TAB, Dr. Perugu Shyam, and Treasurer of TAB, Dr. Urmila Saxena, along with the guests of honour and chief guest, spoke motivating words to the students.

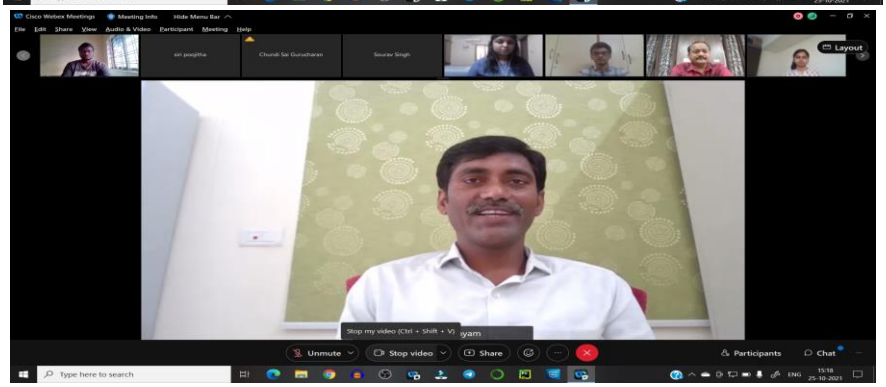
The Executive body, led by General Secretaries Lakshmi Priya V and Nandini Kanoria, put forward their plan of action for the year 2021-22, which was greatly appreciated by all dignitaries. The team plans on providing career guidance and mentoring, technical sessions and imparting social impact.

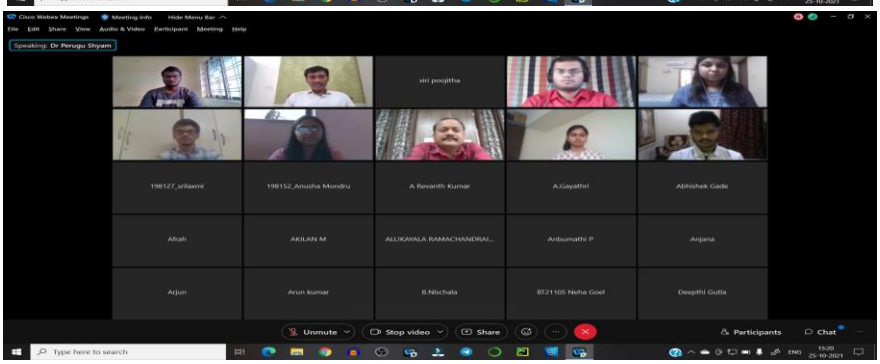
To mark the occasion, Dr. Thangaraj also presented the audience with a talk on Human origin, health and diseases that was truly intriguing and enlightening for all.

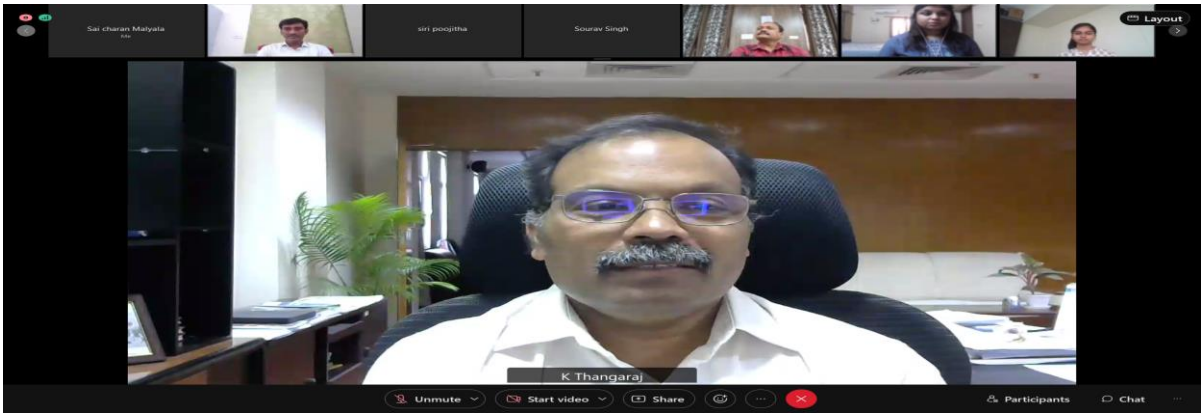

TECHNICAL ASSOCIATION OF BIOTECHNOLOGY
Plan for TAB 2021-22

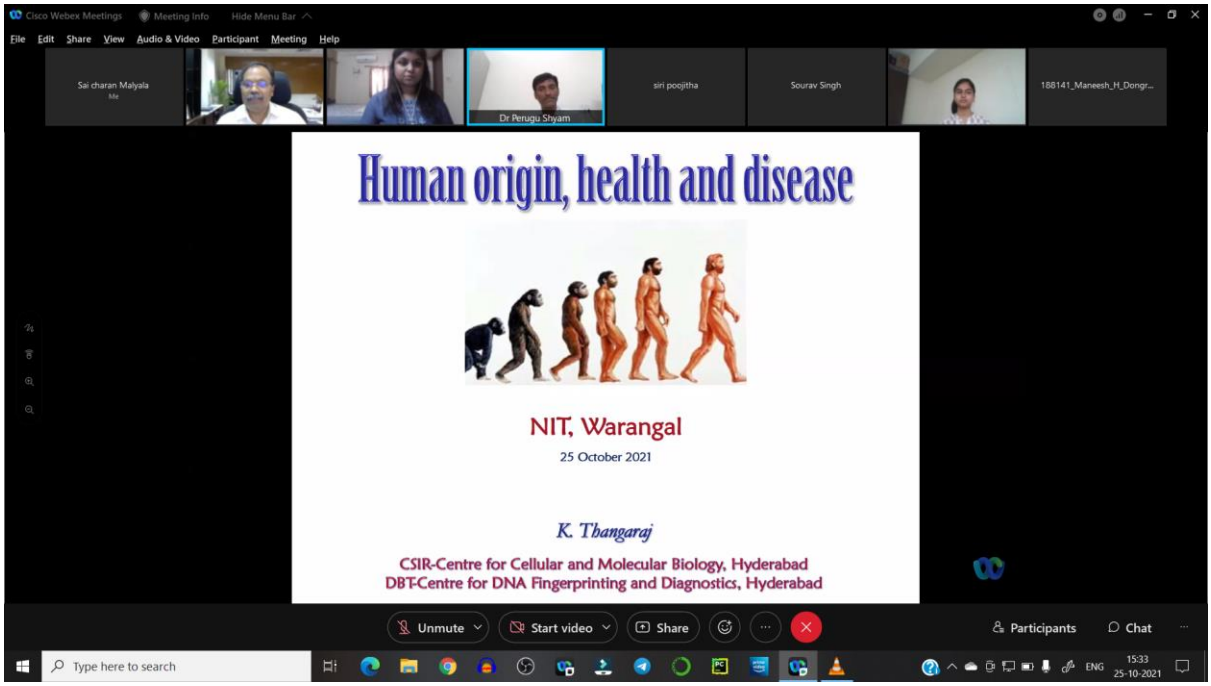

MINISTRY OF EDUCATION
GOVERNMENT OF INDIA
NIT WARANGAL
RAMANA RAO N V


Dr.K.Narasimhulu






Sai charan Malyala
siri poojitha
Sourav Singh
Layout
K Thangaraj
Unmute
Start video
Share
Participants
Chat


Cisco Webex Meetings
Meeting Info
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NIT, Warangal
25 October 2021
K. Thangaraj
CSIR-Centre for Cellular and Molecular Biology, Hyderabad
DBT-Centre for DNA Fingerprinting and Diagnostics, Hyderabad
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25-10-2021

INVITATION
FOR
INAUGURAL CEREMONY
OF

TWO DAY NATIONAL CONFERENCE ON ADVANCEMENTS IN BIOTECHNOLOGY

ORGANISED BY TECHNICAL ASSOCIATION OF BIOTECHNOLOGY

CHIEF GUEST



PROF. N.V. RAMANA RAO
DIRECTOR, NIT WARANGAL

GUEST OF HONOUR



DR. RATNAKAR PALAKODETI
VICE PRESIDENT & GLOBAL PRACTICE HEAD - LIFE SCIENCES AND MEDICAL DEVICES, TECH MAHINDRA



Dr. KORRAPATI NARASIMHULU
HEAD
DEPARTMENT OF BIOTECHNOLOGY



Dr. PERUGU SHYAM
COORDINATOR AND ADVISOR
TECHNICAL ASSOCIATION OF BIOTECHNOLOGY

STUDENT COORDINATORS

NANDINI KANORIA, GENERAL SECRETARY
LAKSHMI PRIYA, GENERAL SECRETARY
NEHA GOEL, EXECUTIVE MEMBER

29th JANUARY, 2022
3:30 P.M TO 4:00 P.M

SCAN THE QR CODE TO JOIN

JOINING LINK:

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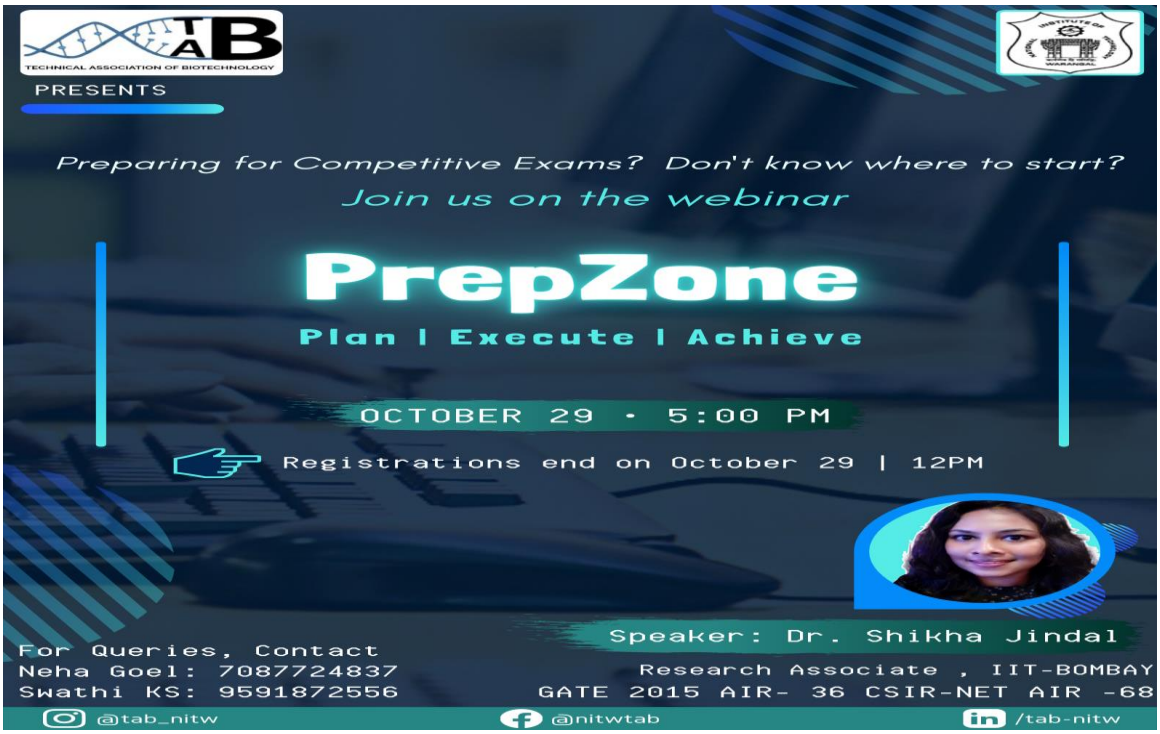
@tab_nitw @nitwtab /tab-nitw

4. Prepzone (29 October 2021)

An online webinar, Prepzone, was conducted on 29th October 2021 to help students understand the different preparation strategies to ace the competitive exams of biotechnology. The speaker of this event was Dr. Shikha Jindal, Research associate, IIT Bombay. She was the guiding force for all the participants and covered various exams like DBT-JRF, GATE, IIT JAM, CSIR-NET, TIFR, ICMR. She also provided valuable suggestions about pursuing higher education abroad and enlightened students on how to crack the barriers which they might encounter during their preparation journey.

Over 90 students from different colleges all over India participated in the webinar and found it very useful and informative.



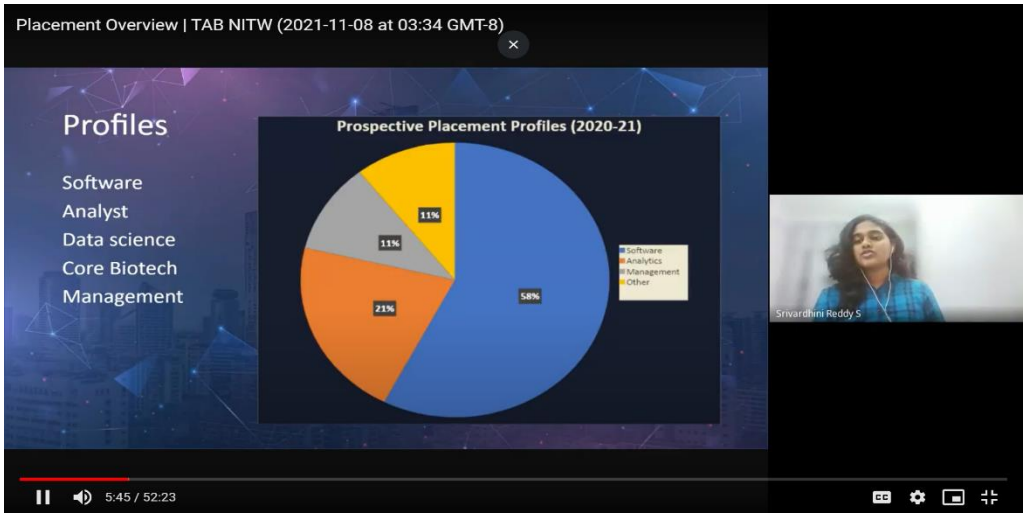


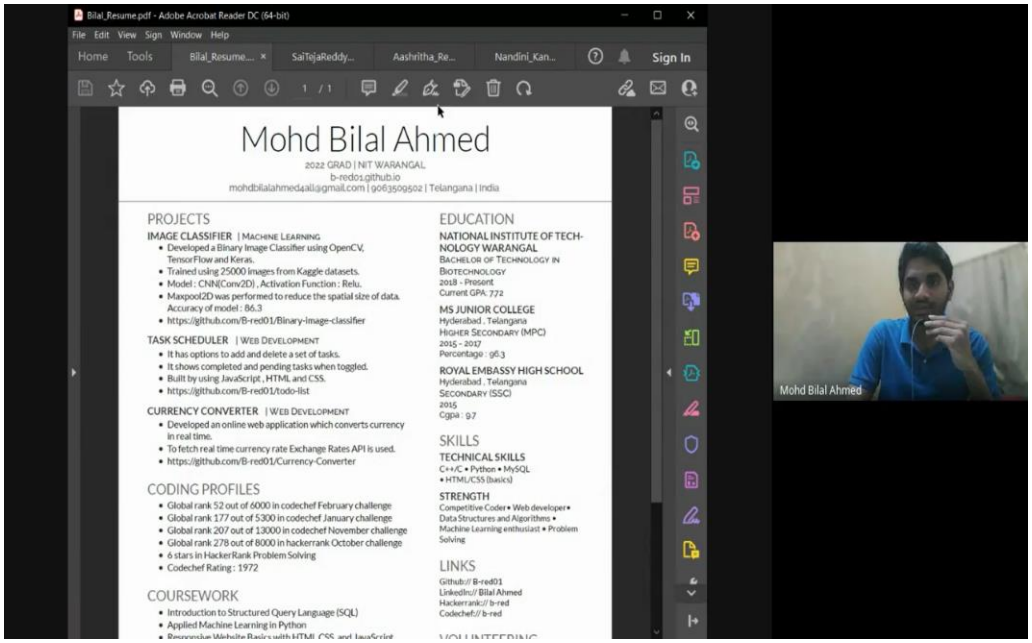
5. Placement Overview (8th November 2021)

The webinar, Placement Overview, was conducted on 8th November 2021. 4th years shared their placement experience with the juniors and gave them an overview of different options available for biotechnology students and how to prepare for each. The discussed software, analyst, data science, management and Core biotech jobs.

The speakers of the event were Mohd Bilal Ahmad (Goldman Sachs, Software Engineer), Nandini Kanoria (OLA , Business Analyst), Srivardhini Reddy (Fractal Analytics, Data Analyst). The event covered Placement Statistics since 2014, various roles and profiles offered, future scope of each profile, the recruitment procedure, and skills required to get into the respective field. The speakers also shared tips and tricks to crack interviews, prepare CVs and excel into their fields.

The event had around 80 participants and made this event very interactive. The students benefited from the candid discussion and guidance that will help them prepare for their future.





6. Research Internships: A to Z (21 Nov 2021)

An interactive webinar was conducted on 21st November 2021. The guest alumni, Simran Asawa (PhD student at ETH Zurich, and NITW 2018 Batch) and Ashwin Narain (PhD student, University of Wurzburg, NITW 2017 Batch). The discussion started by understanding what research meant to our guests, followed by the importance of research internships. They addressed the effects of covid on finding internships and how to overcome this loss. They also discussed how to go about writing cover letters, resumes, and differentiating your application from the rest. Finally, the team shared a database of all available research internships with the 60+ attendees.



7. CareerXplore (Nov 2021 - Present)

CareerXplore is a series of social media posts that talk about the various career avenues available to our students. The goal is to educate 1st and 2nd years to get an early clarity about their goals, so they can start working on it.

Summary

S. No.	Activity	Number
1	**Publications (Peer Reviewed Journals/ conferences)(SCOPUS/SCI)**	
	International Journals with impact factor	52
	National Conferences	16
2	**Funded Research Projects/SPARC projects (2020-21)**	
	Ongoing Projects (Rs **62.96 Lakhs**)	3
	DST, SERB, IITM, NHAI, CSIR	4 (ongoing)
	Total number of projects ongoing	3
	Total budget	62.96 Lakhs
3	**PhD Awarded**	4
4	**Book Chapters**	14

DEPARTMENT OF MATHEMATICS

Brief History of the Department, Academic Programs

The Department of Mathematics 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 Mathematics 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 two year M.Sc Applied Mathematics and two year M.Sc Mathematics and Scientific Computing programs. The Department offers basic courses in Mathematics for B.Tech. At postgraduate level, the Department offers well-designed diverse courses for all programs of M.Tech., M.C.A, M.B.A. and also offers Open Electives for all UG, PG and Ph.D. programs. 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 124 as of October 2022.

The department is actively engaged in research and has a number of sponsored R & D projects on hand. The areas of research include Numerical Analysis, Fluid Mechanics, Computational Fluid Dynamics, Finite Element Method, Operations Research, Fuzzy Sets and Systems, Mathematical Modelling, Algebraic Coding Theory, Cryptography, Differential Equations. The department has MoU's with reputed institutes like Indian Institute of Geomagnetism.

From the academic year 2021-2022, a 5-year Integrated MSc in Mathematics has been 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 major goal of the program is to develop competent science teachers, scientists, and researchers. There are two options for departure, namely, In case of Integrated M.Sc. program, the student is permitted to exit with a B.Sc. at the end of third year and B.Sc. Honors at the end of fourth year based on the student's request subject to meeting all the eligibility requirements.

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 instill 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.



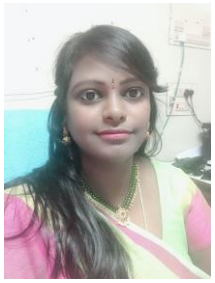
Summary

S. No.	Activity	Number
1	**Publications (Peer Reviewed Journals/ conferences)(SCOPUS/SCI)**	60
	International Journals	58
	International Conferences	2
	National Conferences	
2	**Funded Research Projects/SPARC projects (2020-21)**	3
	DBT, SERB, DRDO	1
	Ongoing Projects (Rs **63 L**)	3
	DST, SERB, IITM, NHAI, CSIR	2
3	**PhD Awarded**	6
4	**Book Chapters**	2
5	**Patents**	

Faculty Details

S. No.	Name of the Faculty Member and Designation	Highest Qualification & Date of Joining	Research Interests	Photograph
1.	Prof. Ramana Murthy J V Professor (HAG)	PhD 09-06-1993	Fluid Dynamics, HAM, Perturbation methods	
2.	Prof. Reddy Y N Professor	Ph. D 01-07-1992	Numerical Analysis	
3	Prof. Kasi Viswanadham K N S Professor	Ph. D 30-9-1991	Numerical Analysis, Finite Element Methods, Optimization Techniques	
4	Prof. Debashis Dutta Professor	Ph. D 19-8-1993	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. Hari Ponnamma Rani Professor & HOD	Ph. D 21-01-2008	Nonlinear dynamics, Finite difference methods, Finite volume methods, Computational Fluid Dynamics, Instability and vortex analysis, Heat and Mass Transfer problems.	
7	Dr. P. Muthu Associate Professor	Ph. D 06-02-2008	Computational Fluid Dynamics (CFD) ; Bio Mechanics ; Mathematical Modelling ; Hydrodynamic Lubrication ; Mathematical Biology	
8	Dr. Benerji Babu A Associate Professor	Ph. D 21-07-2008	Fluid Dynamics (Geophysical Fluid Dynamics)	
9	Dr. R. S. Selvaraj Associate Professor	Ph. D 15-01-2007	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 Associate Professor	Ph. D 27-07-2006	Fluid Dynamics; Heat transfer; Porous Media	
11	Dr. Ch. Ramreddy Associate Professor	Ph. D 09-12-2013	Fluid Dynamics, Convective Heat and Mass Transfer, Porous Media, Computational Methods & Its Stability	
12	Dr. D. Bhargavi Associate Professor	Ph. D 07-05-2012	Computational Fluid Dynamics, Numerical Heat transfer through porous media	
13	Dr. Satyanarayana Engu Associate Professor	Ph. D 10-7-2018	Partial Differential Equations	
14	Dr. Y Sreenivasa Rao Assistant Professor	Ph. D 18-4-2018	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 29-11-2019	Fluid Dynamics, Inventory management, Bio-Mathematics	
16	Dr. Deepika Neela Assistant Professor	Ph. D 18-12-2019	Hydrodynamic Stability; Convection in Porous media.	
17	Dr. Triveni Prasad Shukla Assistant Professor	Ph. D 11-11-2019	Quasilinear Partial Differential Equations, Nonlinear Waves	
18	Dr. Srinivas Jangili Assistant Professor	Ph. D 29-11-2019	Heat Transfer Analysis, Analytical and Semi-analytical Methods.	
19	Dr. Jagannath Roy Assistant Professor	Ph. D 13-11-2019	Multi-Criteria and Mutli-Objective Decision Making, Portfolio selection, Fuzzy Optimization	

Journal Publications

1. Roy, Ashis Kumar, O. Anwar Bég, Apu Kumar Saha, and J. V. Murthy. Taylor dispersion in non-Darcy porous media with bulk chemical reaction: a model for drug transport in impeded blood vessels.Journal of

Engineering Mathematics, 127(1)(2021) 1-18. https://doi.org/10.1007/s10665-021-10120-8(Springer)(Impact factor: 1.444)

2. Aparna, Podila, Podila Padmaja, Nalimela Pothanna, and Josyula Venkata Ramana Murthy. Uniform Flow of Viscous Fluid Past a Porous Sphere Saturated with Micro Polar Fluid. Biointerface Research in Applied Chemistry, (2022). https://doi.org/10.33263/BRIAC131.069
3. 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(4) (2021)
4. Singh, Raghvendra Pratap, and Y. N. Reddy. A fitted deviating argument and interpolation scheme for the solution of singularly perturbed differential-difference equation having layers at both ends. J. Math. Comput. Sci. 11(1)(2021) 856-873 https://doi.org/10.28919/jmcs/5217 (SCIK Publishing Corporation)
5. Singh, Raghvendra Pratap, and Y. N. Reddy. A fitted numerical method for a class of singularly perturbed differential-difference equations.J. Math. Comput. Sci.,11(3)(2021) 2847-2873 https://doi.org/10.28919/jmcs/5606 (SCIK Publishing Corporation)
6. Singh, Raghvendra Pratap, and Y. N. Reddy. (R1511) Numerical Solution of Differential Difference Equations Having Boundary Layers at Both the Ends. Applications and Applied Mathematics: An International Journal (AAM), 17(1)(2022) 14 https://digitalcommons.pvamu.edu/aam/vol17/iss1/14
7. Debashis Dutta & Subhabrata Rath, Scheduling of jobs on computational grids by fuzzy particle swarm optimization algorithm using trapezoidal and pentagonal fuzzy numbers, Communications in Computer and Information Science 1345(2021) 175-185 https://doi.org/10.1007/978-981-16-4772-7_13 (Springer)
8. Debashis Dutta & Subhabrata Rath, Job Scheduling On Computational Grids Using Multi Objective Fuzzy Particle Swarm Optimization, In Soft Computing: Theories and Applications 1380(2022) 333-347,

https://doi.org/10.1007/978-981-16-1740-9_28 (Springer)

9. Nitish Gupta and D. Bhargavi, Numerical Investigation of Heat Transfer in a Developing Thermal Field in the Porous-Filled Duct under Local Thermal Non-Equilibrium: Constant Wall Heat Flux, Special Topics & Reviews in Porous Media-An International Journal 13(3)(2022)1–33 .https://doi.org/10.1615/SpecialTopicsRevPorousMedia.2022044357
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11. Nitish Gupta, and D. Bhargavi, The influence of magnetic effect in a channel partially filled with porous material: A numerical investigation, paper presented at 3rd International Conference on "Mathematical Modeling, Computational Intelligence Techniques and Renewable Energy (MMCITRE-2022) " held during 4-6th March 2022, organized by the University of Technology, Sydney, Australia in association with Forum for Interdisciplinary Mathematics (FIM) - Gujarat Chapter, UABC - Mexico and Pandit Deendayal Energy University, Gandhinagar, India.
12. Nitish Gupta, and D. Bhargavi, Numerical investigation of fluid flow and heat transfer in a channel fully filled with porous medium under Local Thermal Non-equilibrium (LTNE), Paper presented at 66th Congress of Indian Society of Theoretical and Applied Mechanics ISTAM, (An International Meet), held on 4th December 2022, organized by Vellore Institute of Technology (VIT AP) Andhra Pradesh, India.
13. Saurabh Rana, Mohammad S. Obaidat, Dheerendra Mishra, Ankita Mishra & Y. Sreenivasa Rao: Efficient design of an authenticated key agreement protocol for dew-assisted IoT systems, The Journal of Supercomputing 78 (2022)3696-3714, Doi: 10.1007/s11227-021-04003-z (Impact factor: 2.557).
14. Suvradip C, Y. Sreenivasa Rao, C Pandu Rangan: Efficient single round attribute-based authenticated

key exchange protocol. International Journal of Computer Mathematics: Computer Systems Theory 6 (2021) 313-336, https://doi.org/10.1080/23799927.2021.1873192. (Taylor & Francis Online)

15. Srinivas Jangili, B. Mallikarjuna, G. Gopi Krishna, Entropy Generation to Predict Irreversibilities in Poro-elastic Film with Multiple Forces: Spectral Study, Indian Journal of Physics, 95(12) (2021) 2719-2732. https://doi.org/10.1007/s12648-020-01922-0 (Springer)
16. Thota Siva, Srinivas Jangili, Bidyasagar Kumbhakar, and P. K. Mondal, Unsteady electromagnetohydrodynamic flow of couple stress fluid through a microchannel, European Journal of Mechanics-B/Fluids, 95 (2022) 83–93. https://doi.org/10.1016/j.euromechflu.2022.04.007 (Elsevier)
17. Thota Siva, Srinivas Jangili, Bidyasagar Kumbhakar, A theoretical approach to entropy optimization of EMHD flow of non-Newtonian fluid in a microchannel, Pramana-Journal of Physics) 96 (2022)168. https://doi.org/10.1007/s12043-022-02416-w (Springer)
18. B. Mallikarjuna, J. Srinivas, G. Gopi Krishna, O.A. Beg, A. Kadir, Spectral Numerical Study of Entropy Generation in Magneto-Convective Viscoelastic Biofluid Flow through Poro-elastic Media with Thermal Radiation and Buoyancy Effects, Journal of Thermal Science and Engineering Applications (ASME), 14(1) (2022) 01008 https://doi.org/10.1115/1.4050935 (The American Society of Mechanical Engineers)(Impact factor: 1.879)
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22. Rani H.P., Naresh K., MHD Flow Past Semi-Infinite Inclined Vertical Cylinder Under the Influence of Inclined Magnetic Field, Innovative Trends in Hydrological and Environmental Systems,(2022)397-416 https://doi.org/10.1007/978-981-19-0304-5_29 (Springer)
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36. Om Prakash Meena, Pranitha Janapatla, A. J. Chamkha,Influence of the Soret and Dufour on mixed convection flow over a vertical cone with injection/suction effects. Journal of Porous Media, 24(4) 73-88 (2021), DOI: 10.1615/JPorMedia.2021034700. ISSN Print: 1091-028X ISSN Online: 1934-0508. (Indexed in Scopus) (Impact factor 1.782).
37. Om Prakash Meena, Pranitha Janapatla, 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

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Funded Research Projects

S. No	Title & Name(s) of PI	Total Amount sanctioned (Rs in Lakhs)	Funding agency	Project No.
1	Study of different thermo-physical effects on PrandtlEyring Nanofluid flow and heat transfer due to rotating disk **Prof..D.Srinivasacharya**	18.30 lakhs	DST	DST – FSER, Project No SERB/F/5959/2020-2021 dated 21st December 2020
2	NITW - RSM Project, Multi-criteria optimization of sustainable logistics management in uncertain paradigm	Rs. 5,00,000/-	NITW - RSM Project	
3	Investigation of Heat Transfer Characteristics of Electroosmotic Flow of non-Newtonian Fluid through Rectangular Microchannels	Rs. 5,00,000/-	NITW - RSM Project	

4	Design and Implementation of Solving Discrete Logarithm Problem over GF(2n) using Quasi Polynomial Time Algorithm.	24.97956 Lakhs	DRDO	DIR/MED&CoS/SAG/P(CARS)/21-22/007 dated 03/03/2022
5	On the solutions of inhomogeneous Burgers equations **Dr. E. Satyanarayana**	20 lakhs	CSIR	CSIR & No.25(0302) /19/EMR-II

Books and Book Chapters

1. T. Pradeepa and Ch. RamReddy "Micropolar fluid flow over a frustum of cone subjected to convective boundary condition: Darcy-Forchheimer model", Applied Analysis, Computation and Mathematical Modelling in Engineering, Lecture Notes in Electrical Engineering, Springer, Singapore, Vol.897. pp. 109-127, 2022. https://doi.org/10.1007/978-981-19-1824-7_8.
2. P. Naveen, Ch Ramreddy and D. Srinivasacharya "Nonlinear convective flow of power-law fluid over an inclined plate with double dispersion effects and convective thermal boundary condition", Applied Analysis, Computation and Mathematical Modelling in Engineering, Lecture Notes in Electrical Engineering, Springer, Singapore, Vol.897. pp. 129-146, 2022. https://doi.org/10.1007/978-981-19-1824-7_9
3. Naresh Reddimalla, JV Ramana Murthy, V Radha Krishna Murthy, Srinivas Jangili, Effect of Magnetic Field on Unsteady Flow of Dusty Fluid Due to Constant Pressure Gradient Through a Circular Cylinder: An Analytical Treatment. In: Srinivas, S., Satyanarayana, B., Prakash, J. (eds) Recent Advances in Applied Mathematics and Applications to the Dynamics of Fluid Flows. Lecture Notes in Mechanical Engineering, 195-202, 2023, Springer, Singapore. https://doi.org/10.1007/978-981-19-1929-9_17

Conferences, workshops, FDPs, Webinars organized

S. No	Title	Dates, Month, Year	No. of Participants	Organized by	Coordinators
1	Gian Course - "Magnetohydrodynamics in the Light of Astrophysical Dynamos' Analytic, Asymptotic and Numeric Applications"	19-09-2022 to 29-09-2022		Department of Mathematics	Prof. H.P.Rani
2	5-day ONLINE FDP On "Teaching and Learning Strategies of Differential Equations and Applications in Science and Engineering"	28th December 2020 - 01st January, 2021		Department of of Mathematics and TLC	Prof. H.P. Rani, Dr. D. Bhargavi and Dr. P. Muthu
3	GIAN program: Linear and Non-linear Hydrodynamic Stability: Theory and Computation.	April 11 - 24, 2022		Department of Mathematics	Prof. D. Srinivasacharya, Dr. Ch. Ramreddy
4	Data Analytics using Python	8-12 Feb, 2021		Department of Mathematics and CSE	Dr. M. Sandhya, Dr. Y. Sreenivasa Rao
5	Python for Machine learning	26- 30 July, 2021	100	Department of Mathematics and CSE	Dr. M. Sandhya, Dr. Y. Sreenivasa Rao
6	Python for Machine learning	19- 23 July, 2021	95	Department of Mathematics and CSE	Dr. M. Sandhya, Dr. Y. Sreenivasa Rao
7	Python for Machine learning	12- 16 July, 2021	102	Department of Mathematics and CSE	Dr. M. Sandhya, Dr. Y. Sreenivasa Rao

Invited talks delivered

1. Dr. Y. Sreenivasa Rao has delivered guest lectures of two hours duration on “Data Securing Protocols” at the 5-Day International Workshop on Data Science Applications in Industry (IWDSAI)), which is held at VIT-AP University, Andhra Pradesh, India, during 24th – 28th March 2022 organized by the School of Advanced Sciences, on 26-3-2022.
2. Dr. Y. Sreenivasa Rao has delivered an invited talk on “Attribute-based cryptography and its applications” at 3rd International Conference on Mathematical Techniques and Applications (e-ICMTA - 2022) organized by Department of Mathematics, SRM Institute of Science and Technology, Kattankulathur – 603 203, Tamil Nadu, India, on 25-3-2022.
3. Dr. Y. Sreenivasa Rao has delivered a one-day webinar on `"Recent Trends in Mathematics", conducted by Dept. of Mathematics and IQAC, S.V.L.N.S. Government Degree College, Bheemunipatnam, Visakhapatnam, on 11-03-2022.
4. Dr. Y. Sreenivasa Rao has delivered a lecture on “Cryptographic Primitives in Blockchains”, at a One Week Faculty Development Programme (FDP) on Application of Cryptographic Tools for Data and Image Securities, IIIT Kalyani, West Bengal-741235, on 10-12-2021.
5. Dr. Y. Sreenivasa Rao has delivered a webinar on "Mathematical Tools in Data Communication", organized by Dept. of Mathematics & Statistics, Ch.S.D. St. Theresa's College for Women (A), Eluru, Andhra Pradesh, on 24-07-2021.
6. Prof.J.V.Ramana Murthy has delivered a talk on “Finite Differences and Matrices” at Bhavan’s Vivekanada College, Secunderabad On 14-2-2022
7. Prof. J.V.Ramana Murthy has delivered a talk on “Theory of equations” STUTI workshop for intermediate students on 21-2-2022 at NIT Warangal
8. Prof. J.V.Ramana Murthy has delivered a talk on “Leelavathi Ganitham” at APTSMS conference, OU on 13-3-2022 at NIT Warangal

9. Prof. J.V.Ramana Murthy has delivered a talk on "Finite Differences Methods to PDEs" at Open University, Hyderabad on 30-4-202.
10. Srinivas Jangili has delivered a talk on ``Quadratic Equations" to Intermediate students of at STUTI program held on 25th February 2022 at NIT Warangal.
11. Srinivas Jangili has delivered a talk on ``Applications of Order Differential Equations in Real World Phenomena" to BSc students of St. Francis College for Women on 28th August 2021.
12. Dr. P. Muthu has delivered a talk on "Linear Systems" in five Day Online FDP on "Teaching and Learning strategies of Differential Equations in Science and Engineering
13. Dr. P. Muthu has delivered a talk on "Role of Statistics in the Research Methodology" in six days national level FDP with the title "Analysis of Variance".
14. Dr. P. Muthu has delivered a key resource person talk on " Mathematical models of physiological fluid flows" in 2nd International Conference on Mathematical Techniques and Applications.
15. Dr. P. Muthu has delivered a talk on "Emerging trends in Mathematics" in five days national level FDP with the title "Numerical solutions of Navier-Stokes Equations : 2D flow in square cavity".
16. Prof. Kasi Viswanadham K N S has delivered a talk in STTP on "Advanced analytical and numerical methods to solve differential equations" conducted by Department of Mathematics, SVNIT, Surat.
17. Dr. Jagannath Roy has delivered a talk on Machine Learning and Optimization for Uncertain Decision Making, in FDP organized by Dept. of CSE, NIT Warangal. Date: 07/03/2021
18. Dr. Jagannath Roy has delivered a talk on Big Data Analytics with Multi-Criteria Decision-Making Methods, in FDP jointly organized by Dept. of CSE, NIT Warangal, and Dept. of CSE, HIT Kolkata. Date: 27/09/2021.
19. Dr. Jagannath Roy has delivered a talk on Emerging Optimization Techniques for Engineering Applications, in FDP jointly organized

by Dept. of EE, NIT Warangal, and IARE Hyderabad. Date: 05/02/2022.

PhD Research guidance (Completed during the academic year)

1. Om Prakash Meena (Roll No. 717160) completed his Ph.D with the title " Similarity and non-similarity solutions for mixed convection flow across vertical wedge and cone" under the guidance of Dr. J. Pranitha in September, 2021.
2. Koragoni Naresh (Roll No. 716184) completed his Ph.D with the title " Numerical analysis of natural convective flow past vertical cylinder and inside the cavity" under the guidance of Dr. H.P Rani in March, 2021.
3. Kalakuntala Sita Ramana (Roll No. 718070) completed his Ph.D with the title " Bioconvention flow of a nanofluid past an inclined wavy surface" under the guidance of Prof. D. Srinivasacharya in August, 2021.
4. Vanacharla Pujitha (Roll No. 716047) completed her Ph.D with the title " Mathematical models of synovial joint lubrication" under the guidance of Dr. P. Muthu in July, 2021.
5. Abhinava Srivastav (Roll No. 718064) completed his Ph.D with the title " Power-law fluid flows over a truncated cone in a non-darcy porous medium" under the guidance of Dr. Ch. Ramreddy in October, 2021.
6. Dipak Barman (Roll No. 717158) completed his Ph.D with the title "Linear stability analysis of viscous and nanofluid flows in horizontal/vertical channels" under the guidance of Prof. D. Srinivasacharya in June, 2021.

Awards, Outreach Activities, Achievements and Distinctions of Faculty members

1. **Prof.J.V.Ramana Murthy** has been nominated as a member in expert committee for conduct of virtual visit to evaluate/assess the fresh application received from **Sathyabama Institute of Science and Technology,**

Chennai, Tamil Nadu for offering programmes under Open and Distance Learning mode as per UGC

2. **Dr. Ch. Ramreddy - awarded** "Young Researcher (Sciences)-2019" during Faculty Awards -2019 by NIT Warangal, January 2022.


National Institute of Technology Warangal
in collaboration with
NIT Warangal Alumni Association
(NITWAA)

Dr. Ch. Ramreddy

Young Researcher Award (Sciences)-2019

3. **Prof. Debashis Dutta** - Life Time Achievement Award at the International Scientist Awards -2021 on Engineering Science and Medicine by VD GOOD, Chennai during May 21-22, 2021.

Details of students joined in higher educational institutes/companies

S.No.	Roll No.	Name of the student	MSc AM/SC	Company name and address	CTC	Personal email id	Whatsapp Mobile number
1	204968	Praveen Patidar	MSc SC	Collins Aerospace Banglore	6.75L+1L	praveenpatidar7879@gmail.com	7879925567
2	204905	Ankit Tickra	Msc AM	CITIBANK Bangalore	12L	ankittickra0@gmail.com	9805752152
3	204974	Siddharth Jindal	MSc SC	Genpact	11.4 L	siddharthjindal96@gmail.com	8054258464
4	204913	Kapil Garg	MSc AM	CITIBANK Bangalore	12L	kapilgarg0763@gmail.com	9828830763

5	204914	Kumari Pritika	Msc AM	Collins Aerospace Bangalore	6.75L	jhapritika29@gmail.com	7070264640
6	204909	Barnali Dey	MSc AM	Genpact	11.4L	barnalidey246@gmail.com	7061273758
7	204920	Rahul	MSc AM	Genpact	11.4L	rahulsethi1998@gmail.com	8700669796
8	204955	Bharat Bhushan Prasad	MSc SC	Sapiens Bangalore	9.9L	bharatbhushan20220@gmail.com	6201655371
9	204976	Vikash kumar rawani	Msc SC	Sapiens Bangalore	9.9L	vikashkumarrawani2@gmail.com	9304041120
10	204953	Aman	MSc SC	Kantar Analytics Practice Bangalore	9.5L	amankapoor124001@gmail.com	7404724798
11	204966	Parul Agarwal	MSc SC	Citi Bank Bangalore	12L	parulag98@gmail.com	8174804653
12	204977	Zainab Taj	MSc SC	Blue Yonder	13.5L	zainabtaj1@gmail.com	8895243419
13	204975	Surbhi Riyar	MSc SC	TCS	11.5L	surbhiriyar98@gmail.com	8527637676
14	204902	Akash Kumar	MSc AM	Genpact	11.4L	kakash7991@gmail.com	8851369966
15	204924	Saurav Kumar	Msc AM	BYJU'S	6L+2L	sauravkumarcrr0602@gmail.com	9060386261
16	204951	Abhishek Pratap Singh	Msc SC	Incture tech pvt ltd Bangalore	8L	ap856391.aps@gmail.com	7011057474
17	204973	Shagun Pandey	MSc SC	Collins Aerospace Bangalore	6.75L	shagunpandey2017vns@gmail.com	8004455891
18	204961	Manish Khulbe	MSc SC	Genpact	11.4L	manishkhulbe2000@gmail.com	9140981857
19	204967	Piyush Kumar	MSc SC	Genpact	11.4L	piyush750367@gmail.com	9650344986

20	204959	Krishna Prajapati	MSc SC	Genpact	11.4 L	krishnaprajapati61@gmail.com	8409830801
21	204963	Niraj Kumar Pandey	MSc SC	Genpact	11.4L	nirajpnd007@gmail.com	8539094978
22	204965	Parth Gupta	MSc SC	ICICI	16L	parthms300@gmail.com	8448660704
23	204957	Harsh Khandelwal	MSc SC	Oracle	32L	khandelwalharsh0141@gmail.com	9664491854
24	204912	Indramani Mohanty	MSc AM	Collins Aerospace Bangalore	6.75L	imohanty025@gmail.com	7681014728
25	204954	Aman Kumar	MSc SC	Collins Aerospace Bangalore	7.75L	amankum047@gmail.com	7042575520
26	204917	Dipesh Paliwal	MSc AM	BYJU'S	6L+2L	paliwaldipesh2251@gmail.com	9892332692
27	204960	Kunal Kumar	MSc SC	Incture tech pvt ltd Bangalore	8 L	mekunal31@gmail.com	8210599137
28	204952	Akash Sharma	MSc SC	Incture tech pvt ltd Bangalore	8 L	akashsharma20198@gmail.com	7231947313
29	204958	Indu	MSc SC	Federal Bank	9.42-12.56L	indukundu999@gmail.com	9306514828
30	204921	Rishabh Agnihotri	MSc AM	Federal Bank	9.42-12.56 L	rishabhrv09121999@gmail.com	7355134977
31	204961	Ritesh Ranjan	MSc SC	Aakash Institute	9L	Hritu2018@gmail.com	9151727041
32	204910	Etisha	M.Sc AM	Extramarks Education	7.2L	etishaaggarwal678@gmail.com	9306928348
33	204904	Anita	MSc AM	Career point	8.4L	nidhi11051999@gmail.com	8397095215
34	204911	Govind	MSc AM	Career point	8.4L		

35	204901	Abhishek Gupta	MSc AM	Avanti Fellows	4.5L	abhimaths0748@gmail.com	9871969475
36	204962	Monika	Msc Sc	Avanti fellows	4.4L	monikaagarwal871@gmail.com	8708841591
37	204925	Shatrudhan	MSc AM	Career point	6L	Shatrudhankumar2470@gmail.com	

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 LEDs and hybrid 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 of the fourth year for B.Sc honours.



Faculty Details

S. No.	Name of the Faculty and Designation	Highest Qualification and Date of Joining	Research Interests	Photograph
1	Dr. T Venkatappa Rao, Professor & Head	Ph.D & 16-01-2008	Materials Science, Electronics and Fiber Optics Sensors	
2	Prof. Dinakar Dantala	Phd& 30-12-11995	Optical fiber sensors,Material Science	
3	Dr.B.Sobha, Professor	PhD & 3rd June 1992	Sensors and instrumentation, Materials Science	
4	Dr. Abdul Azeem	Ph.D., & 17.09.2008	Glass science, Spectroscopy, Optical system designing, Optical properties of Glass and glass ceramics, Luminescent materials and Devices, Biomaterials for tissue engineering, drug delivery and bioimaging applications	

5	Dr. P. Syam Prasad Professor	Ph.D., & 21.01.2008	Glass science and engineering: Glasses for tissue engineering and photonic applications	
6	Dr. SOURABH ROY	PhD & 18-06-2012	Optical waveguides, Fiber Optic Devices and sensors, Photonics, Optical System Design	
7	Dr. K. THANGARAJU Professor	PhD & 10-10-2014	Organic and Hybrid optoelectronic devices	
8	Prof Haranath Divi	PhD & 11-07-2018	Photonic materials; Nanomaterials; Luminescent Materials and Devices; Mesoporous materials; Aerogels; Fractals; Sol-gel Technology; Energy Harvesting; Piezoelectric Devices	
9	Dr. Kusum Kumari	Ph.D & 13-08-2011	Quantum Materials, Organic Semiconductors, Hybrid Solar Cells, Energy Storage Devices	

10	Dr. D. Paul Joseph Associate Professor	PhD & 24-10-2013	Transparent Conducting Thin Films, Solar Cells, Magnetism and Superconductivity	
11	Dr. V. Jayalakshmi	PhD & 15/05/2014	Liquid Crystals, Nano Materials, Biosensors, Biophysics, Microfluidics	
12	Dr. R. Rakesh Kumar	PhD& 21/05/2018	Energy Harvesting,Energy Storage,Nanogenerators, Nanomaterials, Nanowires growth, 2D materials	
13	Dr. Surya K. Ghosh Assistant Professor	PhD & 13-11-2019	Statistical Mechanics, Soft Matter, Biophysics, Computational Physics	
14	Dr. Hitesh Borkar, Assistant Professor	PhD and 11-11-2019	Experimental Condensed matter Physics	
15	Dr. K. Uday Kumar	PhD & 31-10-2019	Thin Films; Electrochromics; Transparent Conducting Oxides; Energy Harvesting Materials and Devices.	

16	Dr. Aalu Boda Assistant Professor	Ph. D. 01-11-2019	Theoretical Condensed Matter Physics	
17	Dr. Vijay Kumar	Ph.D. 28/11/2019	Machine Learning, Deep learning, Optical Angular Momentum, Optical communication, Fiber optics, Nano-Optics,	

Journal Publications

1. Rajaiah Kaitha, Manjula R., Pragya Tiwari, Minni J Kappen, Shubhajit Biswas, Bijoy Raha, Swarupananda Pradhan, Venkatappa Rao Tumu, Umesh SB, Elumalai S., Kalpana Arvind P, Sriram KV & Prashanth C. Upadhya, "Parametric study of CPT resonance in Rubidium Vapor cell for application in atomic clock" Indian Journal of Pure and applied physics, 60 (2022) 489-496 DOI: 10.56042/ijpap.v60i6.61376 (NISCAIR) (I.F. 0.846)
2. A. Akshaykranth. N. Jayarambabu, T. Venkatappa Rao, R. Rakesh Kumar L. Srinivasa Rao Antibacterial activity study of ZnO incorporated biodegradable poly (lactic acid) films for food packaging applications Polymer Bulletin (2022) https://doi.org/10.1007/s00289-022-04126-0 (Springer) (I.F: 2.843)
3. S. C. Rakesh Roshan,* N. Yedukondalu,* Rajmohan Muthaiah, Kunduru Lavanya, Pazhedath Anees, Rajaboina Rakesh Kumar, Tumu Venkatappa Rao, Lars Ehm, and John B. Parise Anomalous Lattice Thermal Conductivity in Rocksalt IIA–VIA Compounds, ACS Appl. Energy Mater. 5 (2022) 882–896. https://doi.org/10.1021/acsaem.1c03310 (ACS) (I.F:6.024)
4. P. Supraja , R. Rakesh Kumar, Siju Mishra D. Haranath , P. Ravi Sankar , K. Prakashb , N. Jayarambabu , T. Venkatappa Rao , K. Uday Kumar "A simple and low-cost triboelectric nanogenerator based on two dimensional ZnO nanosheets and its application in portable electronics"

Sensors and Actuators: A. Physical 335 (2022) 113368 https://doi.org/10.1016/j.sna.2022 (ELSEVIER) (I.F: 3.407)

5. Jayarambbu Naradala, Akshaykranth Allam, Venkatappa Rao Tumu, Rakesh Kumar Rajaboina, "Antibacterial activity of Copper Nanoparticles Synthesized by Bambusa arundinacea Leaves Extract" Biointerphase Research in Applied Chemistry 12 (2022), 1230-1236. https://doi.org/10.33263/BRIAC121.12301236. (I.F: 1.949)
6. P. Supraja, P. Ravi Sankar, R. Rakesh Kumar, K. Prakash, N. Jayarambabu, T. Venkatappa Rao, "Characteristics of 2D ZnO-based piezoelectric nanogenerator and its application in non-destructive material discrimination", IOP Science-Advances in Natural Sciences: Nanoscience and Nanotechnology 12 (2021) 025011. https://doi.org/10.1088/2043-6262/ac079a (IOP Science) (IF: 2.379)
7. Naradala Jayarambabu, Linganaboina Srinivasa Rao, Allam Akshaykranth , Tumu Venkatappa Rao , Rajaboina Rakesh Kumar, Study of optical and structural properties of natural bamboo fiber powder prepared by ball milling method, Eur. Phys. J. Plus 136 (2021) 1-9 https://doi.org/10.1140/epjp/s13360-021-01932-9 (Springer) (I.F: 3.911)
8. Koustav Dey, Nikhil Vangety, Sourabh Roy, "Detailed investigation of spectral properties of SMS Fiber Segment and its sensing performance under varying multimode fiber lengths," Infrared Physics and Technology (accepted, In print), 2022.
9. Vadapalli Durga Rama Pavan & Sourabh Roy "Exploring the Slow Light Features of Lattice Shifted Twist Induced Photonic Crystal Waveguides with Ring Like Holes" IETE Journal of Research, 1-7, Jan 2022.
10. Koustav Dey, Nikhil Vangety, Sourabh Roy, "Machine learning approach for simultaneous measurement of strain and temperature using FBG sensor," Sensors and Actuators: A Physical, 333, Nov 2021.
11. Vadapalli Durga Rama Pavan and Sourabh Roy, "Analyzing dispersion properties of photonic crystal waveguides with hole and ring like lattice by introducing systematic shift and twist", Optical and Quantum electronics, 53, 1-27, Nov 2021
12. C. Hari Krishna and Sourabh Roy "Generation and conditional switching of isolated C-points in optical beam output of few-mode fiber", Optik, 247, 18012 1-6, Oct 2021.

13. Koustav Dey, V.D.R. Pavan, Ramesh Buddu, Sourabh Roy, "Axial force analysis using half-etched FBG sensor," Optical Fiber Technology, 64, 102548, Jul 2021.
14. Koustav Dey, B Ramesh and Sourabh Roy," Performance of etched silica FBG for simultaneous strain temperature measurement," Silicon, 13, Sept 2021.
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115. J.Bhemarajam, M.Mohan Babu ,P.Syam Prasad, M.Prasad, Spectroscopic studies onions on Er^{3+} ions incorporated bismuth boro lead lithium glasses for solid-state lasers and fiber amplifiers, Optical Materials, Volume 113, 2021, 110818.
116. G. Sahaya Baskaran, P. Syam Prasad, D. Rajeswara Rao, G. Little Flower, Y. Sudhakar Effect of Some Modifier Ions in CuO Doped Sodium Borosilicate Antibacterial Bioglass, Asian Journal of Chemistry; Vol. 33, No. 3 (2021), 591-599.

Funded Research Projects

S. No	Title & Name(s) of PI	Total Amount sanctioned (Rs in Lakhs)	Funding agency	Project No.	Installment received in 2021-2022	Total
1	Development of fully bio-based and biodegradable polymer and bamboo fibers composites for commercial applications. Dr. T. V. Appa Rao	34.542	MBDB	MD/MBDB/CR-86/18-19/589, Dt.22.04.2019	11,27500/-	11,27,500/-
2	Stable Generation of Optical Vortex Beams using Long Period Grating inscribed Few-Mode Optical Fiber Dr. Sourabh Roy	39.5 lakhs	SERB DST	CRG/2019/006569, Dt 20/02/2020	14,65,454/-	

3	Ion Implantation on solution processed Alq3/ZnO hybrid thin films for efficient UV photodetector applications, IUAC Delhi.		IUAC (UGC)	User project	NA	NA
4	Development of Rare-Earth Free Long Afterglow Phosphors for Signage and Strategic Road Safety Marking Applications - Prof D Haranath (PI)	32.588 Lakhs	SERB - DST	CRG/2021/007142 Dt. 07-03-2022	18,61,500/-	18,61,500/-
5	Interface Engineering with CVD grown MoS2 ultra-thin layers for the Improvement of Perovskite Solar Cell Performance	37.53 Lakhs	DST-TMD-SERI 2016-2021	DST/TMD/SERI/S56 (C)	5.85 Lakhs	5.85 Lakhs
6	Design and Development of cost effective label free detection of Alzhiemer's Biomarkers using liquid crystals - Dr. V. Jayalakshmi	37.4 Lakhs	DBT	BT/PR35841/MED/32/745/2020	34.7Lakhs	34.7 Lakhs
7	Dynamics in Complex Environments: from Single Particle to Giant polymers Dr. Surya K. Ghosh (PI)	17 Lakhs	DST	SRG/2020/001606	5.64 Lakhs	5.64 Lakhs
8	Computational structure-based drug design Dr. Surya K. Ghosh (Co-PI)	37 Lakhs	XSEDE, USA & Microsoft Azure, USA	MCB200218 (HPC Consortium Project)	NA	NA
9	Machine learning assisted structured light demultiplexing using nanostructures Dr. Vijay Kumar	17.8 Lakhs	SERB	SRG/2021/001375 Dated: 03/12/2021	Rs. 1147044/-	

Patents

S. No	Date of Granting	Patent Title	Patent Applicant Name(s)	Patent No.	Department	Patent Nation	Patent Status
1	OCTOBER 2021	Calcium Silicate Based Nano Crystalline Ceramics: A Cost effective Method For The Preparation Using Natural Resources	Dr. P. Abdul Azeem, P. Srinath, KVG Reddy	376586	Physics	Indian	Granted

Books and Book Chapters

1. D. Haranath, R Rakesh Kumar, and K. Uday Kumar, have published a book titled "Synthesis, Characterization & Applications of ZnO-TiO2 Nanocomposites, Nanoscale Compound Semiconductors and their Optoelectronics Applications", by SCIO publications,/Springer, Singapore, vol.: 22 (2021) pages: 213-239. ISBN: 978-981-16-5213-4, https://doi.org/10.1007/978-981-16-5214-1_8 (Draft) (Please use the same format)
2. D. Haranath, R Rakesh Kumar, and K. Uday Kumar, have published a book chapter titled "Synthesis, Characterization & Applications of ZnO-TiO2 Nanocomposites, Nanoscale Compound Semiconductors and their Optoelectronics Applications", in the special issue/book series "Nanomaterials and applications" by SCIO publications,/Springer, Singapore, Vol: 22 (2021) pages: 213-239. ISBN: 978-981-16-5213-4, https://doi.org/10.1007/978-981-16-5214-1_8 (Draft) (Please use the same format)
3. D. Haranath, R Rakesh Kumar, and K. Uday Kumar, have published a book titled "Synthesis, Characterization & Applications of ZnO-TiO2 Nanocomposites, Nanoscale Compound Semiconductors and their Optoelectronics Applications", by SCIO publications,/Springer, Singapore, (Accepted / In-press) ISBN: 978-981-16-5213-4, (Draft) (Please use the same format)
4. Songhitha Mehar, Saraswarathi Kailasa, T. Venkatappa Rao, Venkateswara Rao Kalagadda, Have published a book chapter “Synthesis

Approaches, Architecture Design Paradigms and Characterization of Nanostructure Materials for Supercapacitor Applications", Nanostructured Materials for Energy Storage, Volume-II 2022-2023 Wiley –VCH Verlag Sons ISBN: 9783527350674.

5. Ashish Kumar and Tumu Venkatappa Rao, have published a book chapter "Electron Beam Irradiation Induced Compatibilization of Poly (lactic acid) based Blends", Published in Applications of High Radiations Synthesis and Processing of Polymeric Materials, 30 March 2022.
6. Jean Maria Fernandes, D. Paul Joseph, M. Kovendhan have published a book chapter entitled 'Metal oxide charge transport layers for halide perovskite light-emitting diodes', in the book 'Metal Oxides for Next Generation Optoelectronic, Photonic and Photovoltaic Applications', Elsevier S&T Books, Edited by Vijay Kumar, Vishal Sharma, Hendrik C. Swart, Subrata Das (In Press).
7. S. Divyadharshini, Rekha Pachaiappan, Jean Maria Fernandes, R. Rathika, D. Paul Joseph, M. Kovendhan, has published a book chapter entitled 'Potential impact of smart-hybrid supercapacitors in novel electronic devices and electric vehicles', in the book 'Smart Supercapacitors', Edited by Chaudhery and M. Basheer Ahamed (Elsevier, In Press).
8. P.E. Saranya, Rekha Pachaiappan, Jean Maria Fernandes, Reddivari Muniramaiah, D. Paul Joseph, M. Kovendhan, has published a book chapter entitled 'Historical Perspective of Electrochemical Energy Storage Devices', in the book 'Smart Supercapacitors', Edited by Chaudhery and M. Basheer Ahamed (Elsevier, In Press).
9. R Rakesh Kumar, K Uday Kumar and D Haranath, Synthesis, Characterization and Applications of ZnO-TiO2 Nanocomposites, Nanoscale Compound Semiconductors & their Optoelectronics Applications, Year 2022, Pages 271-314, DOI:https://doi.org/10.1016/B978-0-12-824062-5.00011-7https://doi.org/10.1016/B978-0-12-824062-5.00011-7
10. SK Chirauri, M Rakshita, D Haranath, An Insights into Non-RE Doped Materials for Opto-Electronic Display Applications, Emerging Materials, Year 2022, Pages 433-472, DOI:https://doi.org/10.1007/978-981-19-1312-9_12
11. HB Savita Sharma, K Uday Kumar, D Haranath, R Rakesh Kumar, Organic-inorganic perovskites

nanogenerators for energy harvesting applications, Advances in Energy Research, Volume 35, Year 2022, Pages 189-214

12. Kumar R.R.;Kumar K.U.;Haranath D., Synthesis, Characterization, and Applications of ZnO-TiO2 Nanocomposites, Nanoscale Compound Semiconductors and their Optoelectronics Applications, Year 2022, Pages 271-314, DOI:10.1016/B978-0-12-824062-5.00011-7
13. Mishra S.;Haranath D., Synthesis, Properties, and Applications of Zinc Sulfide for Solar Cells, Nanoscale Compound Semiconductors and their Optoelectronics Applications, Year 2022, Pages 47-66, DOI:10.1016/B978-0-12-824062-5.00007-5

Conferences, workshops, FDPs, Webinars organized

S. No	Title	Dates, Month, Year	No. of Participants	Organized by	Coordinators
1	Innovative Teaching Methods on Recent Advances in Concrete and Sustainable Technologies (ReCAST- 2020)	1-5, August 2021	50	Department of Civil Engineering	Prof. P. Ratish Kumar, Prof. G. Rajesh Kumar, Dr. S. Venkateswara Rao
2	A Two-Day International Symposium on Advances in Opto-Electronics	29-30 July 2021	50	Department of Physics & SPIE Student Chapter, NITW	Prof. P. Abdul Azeem, Prof. Sourabh Roy Prof. D. Haranath
3	A One-Day National Symposium on Recent Trends in Applied Physics	31st January 2022	50	Department of Physics & OPTICA Student Chapter, NITW	Prof. Sourabh Roy Prof. P. Abdul Azeem Prof. D. Haranath

Invited talks delivered

1. Prof. Sourabh Roy has delivered an online invited lecture at FDP "Physical Systems and Mathematical Modelling (PSMM-2022)" organized by NIT Calicut, Jan, 2022.
2. Prof. Sourabh Roy has delivered an online invited lecture at FDP "Effective online teaching and conducting examinations with Moodle LMS" organized by NIT Silchar July, 2021.

3. Dr. D. Paul Joseph has delivered a WEBINAR at the UGC HRDC XIII Refresher Course in Physics on 12th Nov 2021 on the topic 'Novel materials and thin films – Facile and Cost-effective Approach', Forenoon session.
4. Dr. D. Paul Joseph has delivered a WEBINAR at the UGC HRDC XIII Refresher Course in Physics on 12th Nov 2021, on the topic "UV-Vis-DRS Spectrometer - Bandgap estimation for thin films and powders - Live online Demo (Lab Session)", Afternoon session.
5. Dr. D. Paul Joseph has delivered a WEBINAR at the Workshop on Physics of Materials and Devices on 10th Dec. 2021, JNTU Ananthapur, on the topic "Novel Nano-dimensional Thin Films and Materials".
6. Dr. D. Paul Joseph has delivered a WEBINAR at the 4th International Conference on Recent Advances in Mathematical Sciences & Applications (RAMSA-21), 2021 on the topic "Alternative transparent conducting thin film electrodes – Elucidation of stabilization and properties"
7. Dr. D. Paul Joseph has delivered a lecture at the Science Week under STUTI-2021 for school students on 22-02-2022 forenoon on the topic 'Heat' at NIT-Warangal.
8. Dr. D. Paul Joseph has delivered a WEBINAR at the workshop 'Novel Electrochemical Energy Devices for Storage, NEEDS-2022', on 9th April 2022 on the topic "Alternative components for energy harvesting devices".
9. Dr. D. Paul Joseph has delivered a WEBINAR on 23rd April 2022 Forenoon on the topic "Optical and four probe data analysis" at the two day 'workshop on characterization techniques (Hands on training) under the DBT-Star college scheme organized by the Dept. of Physics, Sri. S. Ramasamy Naidu memorial College, Sattur, Tamilnadu.
10. Dr. D. Paul Joseph has delivered a live online Demo on 23rd April 2022 afternoon on the topic "UV spectroscopy and electrical characterization" at the two day 'workshop on characterization techniques (Hands on training) under the DBT-Star college scheme organized by the Dept. of Physics, Sri. S. Ramasamy Naidu memorial College, Sattur, Tamilnadu.
11. Dr. D. Paul Joseph has delivered a lecture on 23rd July 2022 at the online FDP on Analytical techniques for Nano-materials", organized by E & ICT Academy, NIT-Warangal, during 18th to 25th July 2022 on the topic "Nano-dimensional thin films for Modern Technology - Basics and Applications".
12. Prof.Dinakar Dantala,Guest Lecture on Optical fiber and their applications at Aurora Technological & Research InstituteHyderabad on 11th April,2022
13. Prof.Dinakar Dantala,Delivered lecture on "Optical Fibers and their applications" at

MG University, Nalgonda on 28th July 2022.

14. Prof Dinakar Dantala,Guest Lecture at Chaitanya Deemed University on 3rd April,2022 on "Appraisal about Ph.D. & Research for PG Students, Research Scholars"
15. Prof Dinakar Dantala.Guest lecture at Chaitanya Degree college" Engineering awareness camp: 24th August 2022,Organized by Eenadu newspaper.
16. Dr. Hitesh Borkar delivered contributary talk on "Synergistic Effect of Electrical Poling on Dielectric Properties of Al-Doped NBT-BT Lead-free Electroceramics" in 65th DAE-Solid State Physics Symposium December 15 -19, 2021 DAE Convention Centre, Anushaktinagar, Mumbai
17. Dr. Hitesh Borkar, has delivered "Pyroelectricity in lead-free optically active electroceramics" in Third Indian Materials Conclave and the 32nd Annual General Meeting of MRSI, IIT Madras will be held in virtual mode during December 20-23, 2021
18. Prof D Haranath delivered Invited Talk on "Intellectual Property and Youth Innovating for Better Future", during One Week Training programme on Sophisticated Instruments DST-STUTI 2022 program being organized by Innovation Centre, Bundelkhand University Jhansi on 17-09-2022
19. Prof D Haranath delivered Invited Talk on " Practical Application of Fluorescence and Case Studies" during A one-week training program on R & D equipment under STUTI-21-DST", NITW, on 23-07-2022
20. Prof D Haranath delivered Invited Talk on "A Method of Designing Uniform Sized Phosphor Nanoparticles and Fabrication of an AC-Electroluminescent Device", during 5th International Conference on Nanomaterials Science and Mechanical Engineering, University of Aveiro, Portugal, on 05-07-2022
21. Prof D Haranath delivered Invited Talk on "Superconductivity and its Applications" during 3-Week Industrial Training Program for Faculty of Physics of Govt Polytechnic Colleges in Telangana State Organized by HRDC & DoP, OU, Hyd, on 04-06-2022
22. Prof D Haranath delivered Invited Talk on "Best Teaching Methods Through Innovative and Creative Thinking" during Orientation for Physical Science Teachers on Experimental Teaching in Physical Sciences organized by TS Residential School & Jr. College (Boys), Velair, Hanumakonda, on 03-05-2022
23. Prof D Haranath delivered Invited Talk on "Intellectual Property Rights and Their Procedures" during Research Methodology teaching under Module-I of UGC-STRIDE(I) Program Bundelkhand University, Jhansi on 23-04-2022
24. Prof D Haranath delivered Invited Talk on "Tips for Writing an Effective Research Article" during 5 Days FDP on "Writing and

Publishing a Scientific Paper" - VIT-AP on 19-04-2022

25. Prof D Haranath delivered Invited Talk on "Teaching and learning of Electroluminescence and its Applications" during A one week training program on R & D equipment STUTI-21-DST, NIT Warangal on 09-04-2022
26. Dr. K. Uday Kumar, delivered Invited talk on topic " Recent trends in electrochromic devices for smart window applications" during the one week FDP on Recent trends in smart materials and application by Vardhman college of engineering on 10/02/2022.
27. Prof Abdul Azeem given live demo on on " Fluorescence work station " during A one-week training program on R & D equipment under STUTI-21-DST", NITW, on 19-07-2022
28. Prof Abdul Azeem given live demo on on " Fluorescence work station " during A one week training program on R & D equipment STUTI-21-DST, NIT Warangal on 09-04-2022
29. Prof. Abdul Azeem has delivered a lecture at the Science Week under STUTI-2021 for school students on 22-02-2022 forenoon on the topic 'Semiconductor physics" at NIT-Warangal.
30. Prof. Abdul Azeem has delivered a WEBINAR at the Workshop on Physics of Materials and Devices on 10th Dec. 2021, JNTU Ananthapur, on the topic "Fabrication of amorphous and crystalline materials for tissue engineering applications"
31. Prof. Abdul Azeem has delivered a talk at A Three-day Indian National Science Academies' Lecture Workshop On "Physics Behind Smart Materials" on 29th March, 2022 at Andhra Loyola college, Vijayawada, on the topic "Fabrication of amorphous and crystalline materials for tissue engineering applications"
32. Prof. P. Syam Prasad, delivered a talk on "Bioactive glasses for tissue engineering applications" as Guest Speaker in a three-day international webinar on FMA-2021 in Andhra Loyola College, Vijayawada, A.P.

PhD Research guidance

1. 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.
2. 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.

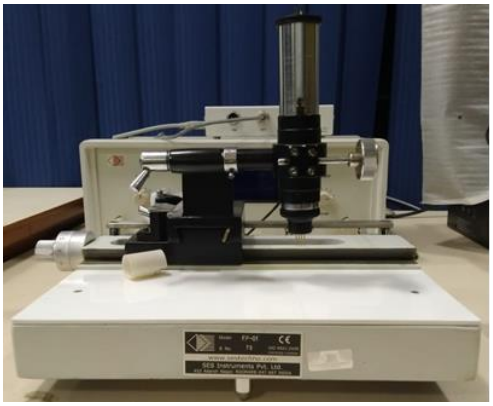
3. Vdr pavan (roll no. 701640) completed his ph.d. With the title "studies on mode propagation and related phenomenon in photonic crystal waveguides" under the guidance of prof. Sourabh roy in june, 2022.
4. N. Purushotham reddy (reg. No: 717052) completed his ph.d. With the title "donor doped $basno_3$, sno_2 metal oxide photoanodes and prickly pear fruit extract photosensitizer alternatives for dye sensitized solar cells" under the guidance of dr. D. Paul joseph, in march 2022.
5. Mk gupta"improvement in the performance of laser based rotation sensor using different nano finishing on glass and glass ceramics" awarded in december 2021,under the guidance of prof dinakar dantala
6. M.gopala krishna murthy"mechanization of coriolis vibratory gyroscope based on control algorithm comprehension and vacuum sealing for aerospace applications" awarded in september 2022,under the guidance of prof dinakar dantala
7. Vishnu vikesh jaiswal (reg 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 Prof D. Haranath in 09 oct 2021.
8. M. Nagaraju (roll no. 716187), completed his ph.d entitled "study and evaluation of polyaniline–reduced graphene oxide composites and porous carbon electrode materials for supercapacitors" under the supervision of Prof. L. Ram gopal reddy & Dr. Kusum kumari in july 2022.
9. Mr. Gnyaneshwar dasi (roll. No. 716054) completed his phd with the title of "solution processed alq_3/zno hybrid thin films and strategy to improve optoelectronic device performance", on 13th june 2022 under the guidance of Prof. K. Thangaraju.
10. Mr.. Srinath palakurthy (roll. No. 716288) completed his phd with the title of "calcium silicate based bioceramics derived from natural resources for tissue engineering", on 29th september 2021 under the guidance of prof. P. Abdul azeem and Prof. K. V.g reddy.

Awards, Outreach Activities, Achievements and Distinctions of Faculty members

1. Prof. Sourabh Roy received the letter of appreciation with Excellent Grade from BRNS in compilation of the funded project.
2. Dr. D. Paul Joseph has been involved in setting the question paper for VIT-Vellore, VIT Engineering Entrance Examination (VITEEE) for the academic year 2022-2023 in Physics.
3. Prof.Dinakar Dantala,JNTU Hyderabad BOS Member for B.Tech. Syllabus of affiliated colleges on May19th and 20th,2022.
4. Prof Dinakar Dantala,M.Sc. Entrance-Osmania University-Electronics Subject question paper on 29th July 2022.
5. Prof Dinakar Dantala,ECET Paper setting AP Govt.
6. Prof Dinakar Danatala,chaired international conference at MS University Baroda,18th&19th July2022
7. Prof Dinakar Dantala, Evaluator, RUSA Proposals,AN University, Guntur
8. Prof D Haranath, National Innovative Research Excellence Award-2022 in Physics (2022)
9. Prof D Haranath, Visiting Scientist for M/s Nanotheranoustics Inc., NY, USA (2019-2024)
10. Prof D Haranath, R&D Board Member of Gemmological Institute of India, (a Govt. Of India Undertaking), Mumbai, India
11. Prof D Haranath, World Ranking of Top 2% Scientists, Database published by Stanford University
12. Prof. Abdul Azeem elected as Associate Fellow of Telangana Science Academy
13. Prof. Abdul Azeem is bos member for Nehru Institute of Technology, Coimbatore, Tamilnadu and Bapatla Engineering College, Bapatla for UG
14. ULAM Visiting Scientist award from NAWA (The Polish national agency for academic exchange). Worked at AGH University of science and Technology, Faculty of Materials Science and Ceramics, Av. Mickiewicza 30, 30-059 Krakow, Poland under The Polish national agency for academic exchange for six months during 1st June 2021 to Nov 2021.

New Lab Equipments/software/Workstations Installed

1. Linear Four Probe equipment to measure resistance of large area samples was procured and installed at the Dept. of Physics.





3. Refrigerated centrifuge; 21000 rpm, REMI Instruments.

4. Ultrasonicator, M/s: Athena Technology - 29500/- Plan-General Equipment (P845)" –Department of physics 2021-2022.

5. Spin coater, M/s: Apex instruments company private limited (MSE) -1,56,188 "Plan-General Equipment (P845)" –Department of physics 2021-22.

6. UV-VISIBLE SPECTROMETER, Metler Toledo-UV5, Rs. 7,50,000/-"Plan-General Equipment (P845)" –Department of physics 2021-22.



7. Zeta potential and particle size analyser, Model Name: Litesizer 500, Rs.28,00,000.00, "Plan-General Equipment (P845)" –Department of physics 2021-22.



7. CO2 Incubator, Rs. 500000/- from DBT Project – 2021

Best student papers and other achievements

S.No	Name	Achievement Details	Date
01	Koustav Dey	Received JSAP Travel grant of 10,000 JYEN to attend JSAP Conference	April 2022
02	Venugopal Raskatla	Received 2022 SPIE Optics and Photonics Education Scholarship worth $3000	March 2022

1. A Two-Day Symposium on "Advances in Opto-electronics" (Virtual Mode) 29-30th July is attended by T. Lavanya
2. Two-day workshop on "Key Scientific Writing Strategies for building a strong Manuscript" organized by ACS Publications is attended by T. Lavanya
3. Invitation to Join the Expert Talk on "Graphene Quantum Dots: An indispensable future material for biomedical and optoelectronics applications" Jan 4, 2022 to T. Lavanya.
4. Two-Day workshop on "Research Writing using LATEX" organised by IEEE MTT-s& AP-S SBC NIT Warangal 16-17 June. K. Naresh
5. DST-STUTI workshop on "Application of XRD Technique in Materials Science and Engineering" at NIT Rourkela, 22-28 August. T. Lavanya

Research Appreciations/Recognition

1. Hitesh Borkarkar awarded for Top Cited Paper in 2022 for Structural transformations and physical properties of (1−x) $Na_{0.5}Bi_{0.5}TiO_3$−x$BaTiO_3$ solid solutions near a morphotropic phase boundary, in J. Phys.: Condens. Matter, 31, 075401 (2019). IOP Publishing

Details of students joined in higher educational institutes/companies

Roll No	Name	Project details	Placement details	Current Status
185924	Himangibahen Jitendrabhai Pandit	Optics and Photonics	Max Plank Institute, Germany	Phd
185937	Suknaya Chaudhury	Optics and Photonics	University of Napoli, Italy	PhD
195932	Venugopal Raskatla	Optics and Photonics	Southampton University, UK	PhD

Department Association/Students Clubs Activities

1. Dr. K. Uday Kumar; Faculty advisor; NSS NIT Warangal Unit
2. Dr. K. Thangaraju, Faculty Advisor, Physics Association, Technozion Activities, 2022.
3. Dr. R. Rakesh Kumar, Library and purchase committee member-Central Library.

Summary

S. No.	Activity	Number
1	Publications (Peer Reviewed Journals/ conferences)(SCOPUS/SCI)	116
	International Journals with impact factor	116
	International Journals without impact factor	
	National Journals	
	International Conferences	5
	National Conferences	5
2	Funded Research Projects/SPARC projects (2021-22)	4
	DBT, SERB, DRDO	4
	Ongoing Projects (Rs 4.84 Crores)	11
	BRNS	1
	FIST PROJECT (2.5 Cr)	1
	National Bamboo Mission	1
	DST, SERB, IITM, NHAI, CSIR	7
	Total number of projects ongoing	10
	Total budget	5.87 C
3	PhD Awarded	10
4	Book Chapters	10
	Book Published	
5	Patents filed	
	Patents granted Awarded	1

DEPARTMENT OF CHEMISTRY

Brief History of the Department, Academic Programs

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 18 faculty members, 57 research scholars and over 100 M.Sc. students. It offers Chemistry courses to seven 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 150 Ph.D. students and published over 1100 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, BET, 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, the department organized national and international Conferences, seminars and workshops. In addition, many of the faculty also were known for their outreach activities and involvement in 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 150 Ph.D., degrees so far and there are over 50 Ph.D., Scholars on rolls.



Summary

S. No.	Activity	Number
1	Publications (Peer Reviewed Journals/ conferences)(SCOPUS/SCI)	103
	International Journals with impact factor	103
2	Funded Research Projects/SPARC projects (2021-22)	2
	DBT, SERB, DRDO	6
	Ongoing Projects (Rs 6.8 Crores)	12
	FIST PROJECT (2.5 Cr)	1
	National Bamboo Mission	
	DST, SERB, IITM, NHAI, CSIR	4
3	Ph.D. Awarded	5
4	Book Chapters	10
	Book Published	
5	Patents filed	3
	Patents granted/Awarded	2
	Total patents	5

Faculty Details

S. No.	Name of the Faculty and Designation	Highest Qualification	Date of Joining	Research Interests	Photograph
1	Dr. K. Laxma Reddy Ph.D. (Kakatiya Univ.) Professor (HAG)	Ph. D		Coordination and Environmental Chemistry	
2	Dr. V. Rajeswar Rao Ph.D. (Kakatiya Univ.) Professor (HAG)	Ph. D	14-06-95	Synthetic organic chemistry, Synthesis of hybrid Natural Products , Synthesis of Biologically Active Heterocyclic Compounds,MCR approaches to new bioactive molecules and StereoSelective Synthesis.	
3	Dr. K. V. Gobi Ph.D. (Madurai Kamaraj Univ.), Professor	Ph. D	03-03-2008	Electrochemical Biosensors, Fuel Cell Electro- catalysts	
4	Dr. P. V. Srilakshmi Ph.D. (IICT, Hyderabad), Professor	Ph. D	01-11-2006	Bioorganic Chemistry, Drug Delivery/Gene Delivery	
5	Dr. Vishnu Shanker, Ph.D. (IIT Delhi), Professor	Ph. D	28-07-2008	Nanocomposite materials, Environmental remediation and photocatalysis	

6	Dr. D. Kashinath Ph.D. (IIT Bombay) Professor	Ph. D		Organic synthesis, Medicinal chemistry	
7	Dr. N. Venkatathri Ph.D. (CSIR-NCL, Pune) Professor	Ph. D	13-08-2008	Materials chemistry, Heterogeneous catalysis, Biomaterials and Electrochemistry	
8	Dr. Raghu Chitta Ph.D. (Wichita State Univ), Associate Professor	Ph. D	30-05-2018	Materials Chemistry, Solar energy, Chemosensors	
9	Dr. B. Srinivas Ph.D. (Univ. of Hyderabad), Associate Professor	Ph. D	24.09.2013	Organic synthesis, Supramolecular chemistry, Crystal engineering and polymorphism	
10	Dr. K. Hari Prasad Ph.D. (IIT Kanpur), Associate Professor	Ph. D	06.12.2013	Organic synthesis, Carbohydrate Chemistry	
11	Dr. S. Nagarajan Ph.D. (Univ. of Madras), Associate Professor	Ph. D	23-04-2018	Organic synthesis, Organic materials, Molecular self-assembly	

12	Dr. Santhosh Penta (NIT Warangal), Associate Professor	Ph. D		Organic synthesis, Drug Design of Pharmaceutical Importance, Catalysis, Ionic liquids, C-H activation	
12	Dr. M. Raghasudha, Ph.D. (Osmania Univ.) Assistant Professor	Ph. D	11-04-2018	Material Chemistry, Magnetic Nanomaterials, Photocatalysis, Catalysis	
13	Dr. C. Jugun Prakash, Ph.D. (IIT Bombay), Assistant Professor	Ph. D	26-04-2018	Medicinal inorganic and bio-analytical chemistry	
14	Dr. Ravinder Pawar, Ph.D. (CSIR-CLRI), Assistant Professor	Ph. D		Computational and theoretical chemistry	
15	Dr. Mukul Pradhan, Ph.D. (IIT Kharagpur), Assistant Professor	Ph. D	02/12/2019	Nanomaterials, Energy devices, Electrochemical and SERS sensors	
17	Dr. G. Rajeshkhanna, Ph.D. (IIT Madras), Assistant Professor	Ph. D		Nanomaterials, Energy storage and conversion systems, Electrocatalysis, Electrochemical sensors	

18	Dr. V. Rajeshkumar, Ph.D. (National Chiao Tung Univ.), Assistant Professor	Ph. D		Organic synthesis, Metal catalysis and green chemistry	

Journal Publications

1. Papisetti Venkatesham, Perugu Shyam, Pooja, Raju Chedupaka & Rajeswar Rao Vedula. Facile One-Pot Multi-Component Synthesis, Characterization, Molecular Docking Studies, Biological Evaluation of 1,2,4-Triazolo Isoindoline-1,3-Diones and Their DFT Calculations.DOI: 10.1080/10406638.2022.2042333. Published online: 01 Mar 2022. Journal name: Polycyclic Aromatic Compounds. Impact factor 3.7
2. Raju Chedupaka, Venkatesham Papisetti, Akanksha Ashok Sangolkar, and Rajeswar Rao Vedula. A Facile One-Pot Synthesis of Benzimidazole-Linked Pyrrole Structural Motifs via Multicomponent Approach: Design, Synthesis, and Molecular Docking Studies. DOI: 10.1080/10406638.2021.1995010. Published online: Accepted 13 October 2021. Journal name: Polycyclic Aromatic Compounds. Impact factor 3.7
3. Srikanth Mamidala, R. Kowshik Aravilli, Krishnaiah Vaarla, Sudhir Reddy Peddi, Ramesh Gondru, Vijjulatha Manga & Rajeswar Rao Vedula. A Facile One-Pot, Three-Component Synthesis of a New Series of Thiazolyl Pyrazoles: Anticancer Evaluation, ADME and Molecular Docking Studies. DOI: 10.1080/10406638.2022.2027788. Published online: 20 Jan 2022. Journal name: Polycyclic Aromatic Compounds. Impact factor 3.7
4. 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. DOI: https://doi.org/10.1080/10406638.2021.1886127 . Polycyclic Aromatic Compounds. Impact factor 3.7. Accepted 30 January 2021.
5. Raju Chedupaka, Ravinder Pawar, Papisetti Venkatesham, and Rajeswar

Rao Vedula. Synthesis, characterization and Density Functional Theory of novel one-pot thioalkylated benzimidazole-linked 4-substituted mercaptoimidazole molecular hybrids via multi-component approach. DOI: https://doi.org/10.1080/00397911.2022.2072745. Published online: 01 Jun 2022. Journal name: Synthetic Communications.

6. SrikanthMamidala, VenugopalVangala, Saikiran, ReddyPeddi, RajuChedupaka, VijjulathaManga, Rajeswar RaoVedula.A facile one-pot, three component synthesis of a new series of 1,3,4-thiadiazines: Anticancer evaluation and molecular docking studies.DOI: https://doi.org/10.1016/j.molstruc.2021.130111. Accepted 8 February 2021. Journal name: Journal of Molecular Structure.
7. SrikanthMamidala,R.KowshikAravilli,GondruRamesh,ShaikKhajavali,RajuChedupaka,VijjulathaManga,Rajeswar RaoVedula.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. DOI: https://doi.org/10.1016/j.molstruc.2021.130356 . Journal name: Journal of molecular structure.
8. Parameshwara Chary Jilloju, Leentje Persoons, Sathish Kumar Kurapati, Dominique Schols, Steven De Jonghe,Dirk Daelemans ,Rajeswar Rao Vedula. Discovery of (±)-3-(1H-pyrazol-1-yl)-6,7-dihydro-5H-[1,2,4] triazolo[3,4-b][1,3,4] thiadiazine derivatives with promising in vitro anticoronavirus and antitumoral activity. Accepted: 15 June 2021. Journal name: Molecular diversity.
9. KrishnaiahVaarla, VinodVishwapathi, KurtVermeire, Rajeswar RaoVedula, Chandrashekhar V.Kulkarni. A facile one pot multi component synthesis of alkyl 4-oxo-coumarinyl ethylidene hydrazono-thiazolidin-5-ylidene acetates and their antiviral activity. https://doi.org/10.1016/j.molstruc.2021.131662. Accepted 4 October 2021. Journal name: Journal of Molecular structure.
10. Recent Developments in Multi-component Synthesis of Lawsone Derivatives, Komal Chandrakar, Jeevan Lal Patil , Rajeswar Rao Vedula, R.K.Virendra, Shyam Prasad Mahapatra, Santhosh Penta and Rajender Verma. Current Organic Synthesis , D.O.I.10.2174/1570/79419666220401121714.

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12. S Arun Kumar, Siddheswar Rudra, G Thamizharasan, Mukul Pradhan, Barkha Rani, Niroj Kumar Sahu, Arpan Kumar Nayak, Journal of Materials Science: Materials in Electronics, 33, 2022, 13668–13683 , https://doi.org/10.1007/s10854-022-08302-w, (Springer US), (IF 2.8)

13. S. Rudra, J. K, G. Thamizharasan, M. Pradhan, B. Rani, N. K. Sahu, A. K. Nayak. Fabrication of Mn3O4-WO3 nanoparticles based nanocomposites symmetric supercapacitor device for enhanced energy storage performance under neutral electrolyte. Electrochimica Acta, Vol-406, Page Nos-1398701, 2022.https://doi.org/10.1016/j.electacta.2022.139870, (Elsevier), (IF 7.3)

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30. Venkanna Muripiti,a Brijesh Lohchania,b Venkatesh Ravula,a Shireesha Manturthi,a Srujan Marepally,b Amarnath Velidandia and Srilakshmi V. Patri. Dramatic influence of the hydroxy functionalityof azasugar moiety in the head group region of tocopherol-based cationic lipids on in vitro gene transfection efficacies. New J. Chem., 2021,45, 615.
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34. Golla, S.; Kokatla, H. P. Rongalite Mediated Transition Metal and Hydride-Free Chemoselective Reduction of α-Keto Esters and α-Keto Amides. J. Org. Chem. 2022, 87, 15, 9915-9925, (Impact Factor: 4.354)
35. Anugu, N.; Thunga, S.; Poshala, S. N-Oxide induced Ugi Reaction: A Rapid Access to Quinoline-C2-Amino Amides via Deoxygenative C(sp2)-H Functionalization. Kokatla, H. P. J. Org. Chem. 2022 87, 15, 10435-10440 (Impact Factor: 4.354)
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43. Deepak Badgurjar,· Naresh Duvva, Anirban Bagui, Pooja, Sapna Gahlot, Ravinder Pawar, Surya Prakash Singh,* Ashish Garg,* Lingamallu Giribabu,*

Raghu Chitta.*Phenothiazine functionalized fulleropyrrolidines: synthesis, charge transport and applications to organic solar cells. Photochem Photobiol Sci (2022). https://doi.org/10.1007/s43630-022-00322-z.

44. Gangada Suneel, Kanika Jain, Boligorla Anjaiah, Hrishit Mitra, Ramya Athira Ramnagar, Srikanth Bandi, Vijaykumar Chuncha, Tapta Kanchan Roy, Lingamallu Giribabu and Raghu Chitta.* Light induced energy and electron transfer occurring in tandem in tetra (bis(4'-tert-butylbiphenyl-4-yl)aniline)-zinc(II) porphyrin-fullerene supramolecular conjugates. J. Porphyrins Phthalocyanines 2022. Just Accepted

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103. Synthesis and Properties of Bis-corannulenes. Halilovic, D.; Rajeshkumar, V.; Stuparu, M. C.* Org. Lett. 2021, 4, 1468–1472

Funded Research Projects

1. Dr. Hari Prasad Kokatla has received a project entitled "Rongalite-induced Consecutive C1-Homologation/Fluorination Strategy for selective fluorination of Organic molecules" worth Rs. 41.2 Lakhs from DST-SEB- under the scheme of Special Call for Proposals (Selective Fluorination Strategies); Role: Principal Investigator. Duration: 2022-25.
2. Dr. S. Nagarajan has received a project entitled 'Synthesis and Anticancer Activity of Sugar-Based Natural Saffloflavonesides and their

Heterocyclic Analogs' worth Rs 38.06 lakhs. Funding agency: SERB-CRG; sanction no. CRG/2018/001386 dated 07-03-2019); Period: 2019-2022; Role: Principal Investigator

3. Dr. S. Nagarajan has received a project entitled 'Fabrication of Printable Nanosensor Patch for Direct Detection of Plant Diseases from Nanocellulose Based Polydiacetylene using Molecular Self-assembly' worth Rs 49.8 lakhs. Funding agency: MHRD-SPARC; sanction no. SPARC/2018-2019/P263/SL dated 31-05-2019, Period: 2019-2023; Role: Principal Investigator.
4. Prof. P. V. Srilakshmi has received a project entitled "Heterocyclic Based Peptidomimetics for Non-viral Gene Delivery" worth Rs. 41.9 lakhs. Funding agency: SERB-CRG, sanction no. CRG/2018/001049 dated 20-03-2019); Period 2019-2022: Role Principal Investigator.
5. Dr. Rajeshkhanna Gaddam (Department of Chemistry) has received a project on 'Development of Metal-Organic-Framework-Derived Hybrid Composite Materials as Bifunctional Electrodes for Production of H_2 by Water Electrolysis', worth Rs. 25.5 Lakhs. Funding agency: SERB-SRG; sanction no. SRG/2021/001028 dated 02-11-2021); Period: 2021-2023; Role: Principal Investigator
6. Dr. Hari Prasad Kokatla has received a project entitled "Rongalite/Molecular Oxygen: A mild and green reagent for oxidation of organic substrates under sunlight" worth of Rs. 41.0 Lakhs from DST-SEB-EEQ (file No. EEQ/2018/001257, 18/03/2019); Role: Principal Investigator. Duration: 2018-2021.
7. Dr. Raghu Chitta. 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. DST SERB Core Research Grant. Rs. 44 lakhs
8. Dr. Raghu Chitta in collaboration with Dr. Sriramgopal Naraharishetty and Prof. Narayanarao at University of Hyderabad on "Multidimensional Spectroscopy" Institute of Eminence, University of Hyderabad. Rs. 55 lakhs
9. Dr. Srinivas Basavoju. CSIR-EMR(II) Project completed on 31.06.2021 entitled ''Design, Synthesis and Biological evaluation of Thiazolidinone-Tetrazolopyrimidine Hybrid Molecules as Anti-Cancer Agents'' with Rs. 15.46 Lakhs
10. Dr. Ravinder Pawar received a project entitled "Designing of Nanoreactors for Carbon Dioxide (CO2) Conversion into Useful Chemicals" worth of Rs. 47.68 Lakhs from DST-

SEB-EEQ (file No. EEQ/2019/000656, 27-Dec-2019); Role: Principal Investigator. Duration: 2019-2022.

11. Dr. Ravinder Pawar received a project entitled "Metal Flatlands (Atomically Thin Two-Dimensional Metals): Designing, Properties and Applications" worth of Rs. 41.16 Lakhs from DST-SEB-ECRA (file No. ECR/2018/002346, 20-Mar-2019); Role: Principal Investigator. Duration: 2019-2022.
12. Dr. V. Rajeshkumar received a project entitled "Strategy for the Synthesis of Indole fused Benzothiazepines and Benzothiazines and explore their biological activity" worth of Rs. 25,00,344 from DST-SERB SRG (File No : SRG/2020/001836, 13-Nov-20); Role: Principal Investigator. Duration: 2020-2022.
13. Dr. Mukul Pradhan received a project entitled "Novel Biocompatible Nanocomposites for SERS Based Sensing of Biomolecules and Toxic Metal Ions" worth of Rs. 35,00,000 from DST-INSPIRE (File No : INSPIRE Faculty Award /2016/DST/INSPIRE/04/2015/003227) ; Role: Principal Investigator. Duration: 2016-2022.
14. Prof. N. Venkatathri received a project entitled "Photocatalytic environmental remediation by bimetallic mesoporous materials", worth Rs. 24 Lakhs from DST-INSPIRE (Inspire Award/2017/DST/INSPIRE/03/2017/160382); Principal Investigator, Duration : 2017-2022.

S. No	Title & Name(s) of PI	Total Amount sanctioned (Rs in Lakhs)	Funding agency	Project No.	Installment received in 2021-2022	
	Rongalite-induced Consecutive C1-Homologation/Fluorination Strategy for selective fluorination of Organic molecules	41.250	SERB	SCP/2022/000273-dated 31/10/2022		18.4
1	Synthesis and Anticancer Activity of Sugar-Based Natural Saffloflavonesides and their Heterocyclic Analogs Fabrication of Printable	38.06 Lakhs	SERB, DST, GoI	CRG/2018/001386 dated 07-03-2019	9,00,000/-	9,00,000/-

	Nanosensor Patch for Direct Detection of Plant Diseases from Nanocellulose Based Polydiacetylene using Molecular Self-assembly					
2	Synthesis and Anticancer Activity of Sugar-Based Natural Saffloflavonesides and their Heterocyclic Analogs Fabrication of Printable Nanosensor Patch for Direct Detection of Plant Diseases from Nanocellulose Based Polydiacetylene using Molecular Self-assembly	49.8 Lakhs	MHRD-SPARC	SPARC/2018-2019/P263/SL dated 31-05-2019	-	-
4	Heterocyclic Based Peptidomimetics for Non-viral Gene Delivery PI:Prof. P.V.Srilakshmi	41.9 Lakhs	SERB	CRG/2018/001049	8,00,000	8,00,000
5	Rongalite/Molecular Oxygen: A mild and green reagent for oxidation of organic substrates under sunlight	41.9 Lakhs	SERB	EEQ/2018/001257	8,00,000	
6	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	44.03	SERB	DST SERB CRG/2018/002661	7,50,000	
7	Strategy for the Synthesis of Indole fused Benzothiazepines and Benzothiazines and explore their biological activity; PI: Dr. V. Rajeshkumar	25 Lakhs	SERB	SRG/2020/001836	6,00,000	

Patents

S. No	Date of Filing	Patent Title	Patent ApplicantName(s)	Patent No.	Department	Patent Nation	Patent Status
1	21-08-2021	PROCESS FOR PREPARING FARNESOL-BASED CATIONIC LIPIDS FOR CARRYING NUCLEIC ACIDS IN TO DESIRED CELL LINES	Venkatesh Ravula, Srilakshmi V Patri	AU 2021106376 A4	Chemistry	Australia	Granted
2	17.09.2022	A METHOD FOR SYNTHESIS AND DEVELOPMENT OF THE THERAPEUTIC AGENTS IN TREATING TUBERCULOSIS USING QUINOLINYL SPIROQUINAZOLINONE OXADIAZOLES"	Srinivas Basavoju, Allaka Bhargava Sai, Istarla Madhu Rekha, Dharmarajan Sriram, Gamidi Ramakrishna	202241053187	Chemistry	Indian	published
3	17-09-2022	An improved process for the synthesis of Porous crystalline Silicoalumino phosphate molecular sieves through Non-aqueous media	N. Venkatathri, and S. Suresh,	202241053195	Chemistry	Indian	Filed
4.	26-11-2021	Synthesis of Graphitized Carbon from Biomass using Focused Sunlight in a Newly Designed Reaction Setup for Energy Storage Application.	Mukul Pradhan, S. Rudra, R. Chakraborty	202141054738	Chemistry	Indian	Filed

Books and Book Chapters

1. R. Chakraborty, and M. Pradhan have published a book chapter titled “Current status, esearch gap and future scope of bismuth series for the treatment of environmental pollutants” in the book entitled "Bismuth-Based Materials for Environmental Remediation" by IOP Publishing Ltd 2022. pages: 11-33. https://doi.org/10.1088/978-0-7503-5138-6ch11.

2. Chakraborty, and M. Pradhan have published a book chapter titled

"Phosphides and nitrides for visible light photocatalysis" in the book entitled "Nanostructured Materials for Visible Light Photocatalysis" by Elsevier Publishing Ltd 2022. pages: 197-250. ISBN: 978-0-12-823018-3, https://doi.org/10.1016/B978-0-12-823018-3.00020-8.

3. R. Chakraborty, and M. Pradhan have published a book chapter titled "Electrochemical techniques for photoelectrochemical water splitting" in the book entitled "Nanostructured Materials for Photoelectrochemical Water Splitting" by IOP Publishing Ltd 2021. pages: 2-28., https://doi.org/10.1088/978-0-7503-3699-4ch2.

4. Siva Prasad Y., Lalitha K., Sravya Chowdary A., Jugun Prakash C, Nagarajan S, have published a book chapter titled "Metals and Metal Complexes for Medicinal Applications" (Chapter 3), S. Rajendran et al. (eds.), in the book 'Metal, Metal Oxides and Metal Sulphides for Biomedical Applications, Environmental Chemistry for a Sustainable World' 58, by Springer, Cham. 2021, https://doi.org/10.1007/978-3-030-56413-1_3

5. Siva Prasad Y., Lalitha K., Thamizhanban A., Atul S., Muskan B., Nagarajan S, has published a book chapter entitled "Application of Metal and Metal Oxides in Sustainable Synthesis and Biology" (chapter 9), S. Rajendran et al. (eds.), in the book 'Metal, Metal Oxides and Metal Sulphides for Biomedical Applications, Environmental Chemistry for a Sustainable World' 58, by Springer, Cham 6, 2021, https://doi.org/10.1007/978-3-030-56413-1_9

6. Rebaka Vara Prasad, Rachamalla Arun Kumar, Devendra Sharma, Atul Sharma, Subbiah Nagarajan, have published a book chapter entitled "Sophorolipids and rhamnolipids as a biosurfactant: Synthesis and applications" Chapter 21 Editor(s): Inamuddin, Charles Oluwaseun Adetunji, Abdullah M. Asiri, in a book 'Green Sustainable Process for Chemical and Environmental Engineering and Science', Elsevier, 2021, Pages 423-472, ISBN 9780128233801, https://doi.org/10.1016/B978-0-12-823380-1.00014-9.

7. Rachamalla Arun Kumar, Rebaka Vara Prasad Subbiah Nagarajan have published a book chapter entitled "Antibiofilm activities against food pathogens" Chapter 23 Editor(s): Inamuddin, Charles Adetunji, in a book 'Applications of Next Generation Biosurfactants in the Food Sector', Elsevier, 2022, Pages 1-30, ISBN 9780128242834, https://doi.org/10.1016/B978-0-12-824283-4.00009-5

8. 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* Book 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, 2021, Elsevier. ISBN: 978-0-12-820939-4, 0128209399

9. Mahesh Kumar Ravva, Ravinder Pawar, Shyam Vinod Kumar Panneer, Venkata Surya, Kumar Choutipalli, Venkatesan Subramanian. Effect of Both Structural and Electronic Confinements on Interaction, Chemical Reactivity and Properties. Chapter 15, Pg No. 263-270, Chemical Reactivity in Confined Systems: Theory, Modelling and Applications (Book Editor(s):Pratim K Chattaraj, Debdutta Chakraborty), Publisher: Jhon Wiley and Sons Ltd).

10. Saikumar Manchala, Vijayakumar Elayappan, Hai-Gun Lee and Vishnu Shanker, Plasmonic photocatalysis: an extraordinary way to harvest visible light, Chapter-7, Pages 187-216, Photocatalytic Systems by Design: Materials, Mechanisms and Applications, 2021, Publisher Elsevier, DOI: https://doi.org/10.1016/B978-0-12-820532-7.00020-5

Conferences, workshops, FDPs, Webinars organized

S. No	Title	Dates, Month, Year	No. of Participants	Organized by	Coordinators
1	Organic Synthesis	6-7, May 2022	>150	Department of Chemistry	Dr. S. Nagarajan
2	Development of Drug/Gene Delivery Vectors.	13-14, May 2022	70	Department of Chemistry	Prof. P.V. Srilakshmi
3	Online One-Day Faculty Development Workshop" on " Green Chemistry: A Solution for Sustainable Future "	4th March, 2022.	90	Department of Chemistry	Dr. K. Hari Prasad
4	Hari Prasad Kokatla, Basavoju Srinivas, A Six Day Faculty Development Programme on "Teaching and Learning of Green Chemistry: Nurturing a New of Chemists" organized at Department of Chemistry, National Institute of Technology Warangal on	26th February-03rd March, 2021.	40	Department of Chemistry	Dr. K. Hari Prasad

5	Hari Prasad Kokatla, K. Laxma Reddy, Basavoju Srinivas, A Six-Day Online Faculty Development Programme on "Teaching and Learning of NMR Spectroscopy for Structure Determination", o	19th-24th February 2021	40	Department of Chemistry	Dr. K. Hari Prasad
6	A Six-Day Online Faculty Development Programme with hands on experience on "Applications of DFT (Density Functional Theory) In Teaching And Learning Chemistry, Physics & Material Science - With Software For Chemistry And Materials (SCM-AMS)"	19th -24th March 2021	40	Department Of Chemistry in association with Teaching Learning Centre	Dr. M. Raghasudha, Dr. Ravinder Pawar
7	Convener, A Three Day International Conference on Conventional and Digital Methods in Chemical Education	29-31 July, 2021	150	Department of Chemistry	Prof. D. Kashinath and Dr. Raghu Chitta
	Co-ordinator, Online Two day Workshop for Faculty Development Programme "Light Harvesting Materials for Sustainable Energy" at Department of Chemistry, National Institute of technology Warangal	3-4 March, 2022.	50	Department of Chemistry	Dr. Raghu Chitta
8	A six-day faculty development program on ''Teaching and Learning of NMR Spectroscopy for structure determination''	19-24 Feb 2021	60	Department of Chemistry	Basavoju Srinivas Hari Prasad Kokatla, K. Laxma Reddy,
9	Online one day Faculty Development programme on "Atomically thin metal membranes: A Computational Study"	05th March 2022	150	Department of Chemistry	Dr. Ravinder Pawar
10	Online one day Faculty Development programme on "Organocatalysis"	06th March 2022	50	Department of Chemistry	Dr. Ravinder Pawar
11	One Day Workshop on "Earth and Its Components, Preservation and Sustenance" as a Prologue to Observe International Earth Day, i.e., 22nd April.	17.04.2022			Prof. K. Laxma Reddy
12	One Day Workshop on 'Role of Print and Electronic Media in Science Communication in AP and Telangana' for the working Journalists of Telangana held on 01.07.2022 at NIT Warangal.	01-07-2022		NIT Warangal	Prof. K. Laxma Reddy

13	One Day Workshop on 'Role of Print and Electronic Media in Science Communication in AP and Telangana' for the working Journalists of AP held on 16.07.2022 at School of Planning and Architecture, Vijayawada.	16-07-2022		School of Planning and Architecture, Vijayawada.	Prof. K. Laxma Reddy
14	One Day Workshop on 'Role of Print and Electronic Media in Science Communication in AP and Telangana' for the working Journalists of AP to be held on 23.09.2022 at Department of Journalism and Mass Communication, OU, Hyderabad	23.09.2022		Department of Journalism and Mass Communicatio n, OU, Hyderabad	Prof. K. Laxma Reddy
15	One day work shop on "Swatch Sagar Surakitch Sagar" at JNTU , Kakinada	1-9-2022		JNTU , Kakinada	Prof. K. Laxma Reddy
16	One day work shop on "Swatch Sagar Surakitch Sagar" at Andhra University, Visakhapatnam	2-9-2022		Andhra University, Visakhapatnam	Prof. K. Laxma Reddy
17	One day work shop on "Swatch Sagar Surakitch Sagar" at Dr. B. R. Ambedkar University, Srikakulam	3-9-2022		Dr. B. R. Ambedkar University, Srikakulam	Prof. K. Laxma Reddy
18	One day symposium on " Engineering Day Celebrations" at KITS Warangal.	15-9-2022		KITS Warangal.	Prof. K. Laxma Reddy
19.	Webinar, Development of Selected multi-valent metal ions functionalized mesoporous materials and their applications.	02-07-2021		Vel Tech High Tech, Dr. Rangarajan, Dr. Sakunthala Engineering College, Chennai.	Prof. N. Venkatathri

Invited talks delivered

1. 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 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.

2. Prof. V. Rajeswar Rao delivered 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.
3. Prof. V. Rajeswar Rao delivered 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).
4. Prof. V. Rajeswar Rao delivered 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.
5. 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 Jan 2021" organized by JNTUHyderabad.
6. Prof V.Rajeswar Rao delivered a lecture on Planning and Execution of Nitrogen and Sulphur Heterocyclic Systems in the UGC-HRD at Osmania University, Hyderabad on 21-1-22.
7. Prof .V.Rajeswar Rao delivered an expert lecture on IR Spectroscopy and its Application (11-07-22) in a Refresher Course in Chemistry held at UGC-HRDC, Pandit Ravishankar Shukla University , Raipur (C.G)
8. Prof .V.Rajeswar Rao delivered an expert lecture in one week STUTI -21 Awareness Program on" Impact of Organic Chemistry on Society"(22-2-22).
9. Prof .V.Rajeswar Rao delivered an expert lecture on Organic Chemistry and its Applications (11-06-22) in a FDP program for PolyTechnic Faculty conducted by Kakatiya University ,Warangal .
10. Prof .V.Rajeswar Rao delivered two lectures on Teaching and Learning of IR (09-4-22) in a one week STUTI -21 program that was conducted on R and D equipment from 4th April to 10th April 2022 at NITWarangal.
11. Prof .V.Rajeswar Rao delivered two lectures on Teaching and Learning of UV (18-4-22) and two lectures on IR Spectroscopy(18-4-22) in a one week STUTI -21 program that was conducted on R and D equipment from 18th April to 24th April 2022 at JNTUHyderabad.
12. Prof .V.Rajeswar Rao delivered two lectures on Teaching and Learning of NMR (29-5-22) in a one week STUTI - 21 program that was conducted on

Material Processing and Advanced Material Characterization Techniques from 27th May to 02 nd June 2022 at NITWarangal.

13. Prof. V.Rajeswar Rao delivered four lectures(each 1 hr) on NMR and its Applications(19-7-22) in a one week STUTI-21 program that was conducted on Structural Identification of Compounds by Analytical Techniques from 19th july to 25th July organized by NITWarangal .
14. Prof. V.Rajeswar Rao delivered two lectures(each 1 hr) on IR and its Applications(8-8-22) in a one week STUTI-21 program that was conducted on Structural Identification of Compounds by Analytical Techniques from 8th August to 14 August organized by VNIT , Nagpur.
15. Prof .V.Rajeswar Rao delivered four lectures (each 1hr) on Theory of NMR and its practical Applications (16-8-22) in a one week STUTI-21 program that was conducted on Characterization of materials /compounds by using Advanced Instruments from 16th to 22August 2022 at Osmania University, Hyderabad.
16. Prof .V.Rajeswar Rao delivered four lectures (each 1hr) on Theory of NMR and its practical Applications (16-8-22) in a one week STUTI-21 program that was conducted on Instrumental Methods of Materials Analysis from 22 nd to 28th August 2022 at Srivenkateswara University, Tirupati.
17. Prof. K. Laxma Reddy delivered online webinar lecture on "Universal Human Values" at Telangana Tribal Govt Women Degree College, Mahabubabad on 28-4-2022
18. Prof. K. Laxma Reddy delivered expert lecture on 16-9-22 at Telangana Social Welfare Residential School, Dharmasagar on "Deletion of Ozone Layer-Consequences"
19. Prof. K. Laxma Reddy delivered expert lecture on 17-9-22 at Telangana Residential School, Velairu, Hanumakonda on " Global Warming and its Effect on Oceans"
20. Dr. M. Pradhan has delivered an invited lecture in the online FDP at the National Institute of Technology Warangal, Telangana on "Anisotropic Nano-materials: Synthesis and Applications" on 24th July, 2022.
21. Dr. S. Nagarajan has served as a Resource Person in AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "GREEN TECHNOLOGY & SUSTAINABILITY IN CHEMISTRY" from 02/08/2021 to 06/08/2021 at ADHIYAMAAN COLLEGE OF ENGINEERING.
22. Dr. S. Nagarajan has served as a resource person in a national webinar organized by Sri GVG Visalakshi college

for women, Udumalpet, Tamil Nadu on 23-02-2021.

23. Dr. S. Nagarajan has served as aresource person in a national webinar organized by Sri GVG Visalakshi college for women, Udumalpet, Tamil Nadu on 23-02-2021.
24. Dr. S. Nagarajan has served as a resource person in the National Science Day celebration organized by the Dept. of Chemistry, Nallamuthu Gounder Mahalingam College, Pollachi, Tamil Nadu on 23-02-2021.
25. Dr. S. Nagarajan has served as a resource person in one day workshop for faculty development program on "Organocatalysis" Organized by Department of Chemistry, NIT Warangal on 6th March 2022.
26. Dr. S. Nagarajan has served as a resource person in the One week science awareness Programme under STUTI-2021 organized by CRIF, NIT Warangal on 22-28 February 2022.
27. Dr. S. Nagarajan has served as a CHAIRPERSON for the Chemistry Technical Session in our national conference of future perspective for basic sciences 2021 - NCFPBS 2021 organized by Department of Mathematics, Physics, Chemistry & Computer Science, vinayaka mission's research foundation, old mahabalipuram road, Paiyanoor - 603104 0n 08-04-2021.
28. Dr. S. Nagarajan has served as a resource person in a Faculty Enrichment Programme on Emerging fields in chemical sciences organized by postgraduate and research department of chemistry, Vivekananda College, Madurai, Tamil Nadu on 22 March 2021.
29. Dr. S. Nagarajan and Mr R Arun Kumar have presented a poster in RSC poster Twitter Conference organized by Royal Society of Chemistry, UK on 02-March 2022.
30. Dr. S. Nagarajan has served as a resource person in ONLINE SIX DAY FDTP on "CY3151 - ENGINEERING CHEMISTRY" sponsored by Centre for Faculty Development, Anna University, Chennai and organised by the Department of Chemistry, Kongu Engineering College, Perundurai, Erode from 25.07.2022 to 30.07.2022. and delivered a talk on "Municipal & Effluent Water Treatments" on 29.07.2022.
31. Prof. P.V. Srilakshmi has served as a resource person in Two Day International Conference on "6th National conference on "Trending Research & Innovations in Pharmaceutical Sciences" (TRIPS-2022) scheduled from 22nd July to 23rd July 2022, in collaboration with "Indian Pharmaceutical Association (IPA), Warangal City Local Branch & Publication partner "Annals of

Phytomedicine" and delivered a talk on "Tocopherol-Arginine Hybrid Based Cationic Lipid Vesicles for Selective pTRAIL Delivery to Inhibit Glioblastoma" on 22.07.2022.

32. Dr. Rajeshkhanna Gaddam has delivered an online guest lecture at Govt. Degree College for Women, Khammam, Telangana on "CNanochemistry" on 28th Dec, 2021.
33. 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 19th–24th March 2021, organized by the Department of Chemistry, NIT Warangal.
34. An expert lecture in Online One-Day Faculty Development Workshop" on " Green Chemistry: A Solution for Sustainable Future " organized at Department of Chemistry, National Institute of Technology Warangal on 4th March, 2022.
35. An expert lecture at the FDP on "Advances in Synthetic Organic Chemistry and their Applications in Medicinal Chemistry" scheduled from 23rd-27th August, 2021, in NIT Calicut, Kerala, India.
36. Dr. M. Raghasudha has served as Resource person in Refreshers Course to Govt. Polytechnic Lecturers at Kakatiya University, Warangal on 16-06-2022.
37. Dr. M. Raghasudha delivered a talk as a resource person at GHS Subedari, Hanamkonda on 28-02-2021.
38. 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.
39. 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.
40. 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.
41. 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.
42. M. Raghasudha, delivered a talk on Women Education Challenges on the eve of Savitribaa Phule Jayanthi at Mahathma Jyothibaa Phule Residential College, Orusu Gutta, Warangal on 03-01-2022.

43. M. Raghasudha, delivered a talk on Women Empowerment-a key towards Nation building under DST-SCoPE project jointly organized in association with JVV, Samatha subcommittee, Telangana on 23-01-2022.
44. M. Raghasudha acted as Resource person in Science week festival organized by SCoPE and demonstrated the chemistry experiments to school and college students on all seven days and explained the science concepts from 22-02-2022 to 28-02-2022.
45. M. Raghasudha acted as a resource person and delivered a talk on good laboratory practices and demonstrated Chemistry experiments for Intermediate students in Science Week on 25-02-2022 under STUTI-2021 at NITW.
46. M. Raghasudha delivered a talk on "Indian Women in science who made history" on International Women's day 08-03-2022 to all science teachers organised by Department of School Education in association with Regional science centre supported by NCSTC, DST-Govt. of India, TSCOST at Regional Science Centre, Warangal.
47. M. Raghasudha, delivered a talk on "Importance of Family Relations in a student life" during Family Fest organized by "Sri Chaitanya International School CBSE school", kazipet on 09-04-2022.
48. M. Raghasudha, Delivered a talk during "International Earth Day Celebrations" organized by the DST-VP SCoPE Telugu project, NIT Warangal on 17th April 2022.
49. Dr. Raghu Chitta. Organometallic Chemistry of Transition Metals at GVP College of Engineering, Vishakhapatnam, on 23rd December, 2021.
50. Dr. Raghu Chitta. Fundamentals and Applications of Photo-induced Electron Transfer in UGC HRDC Online Refresher Course in Chemical Sciences, Osmania University on 25th January, 2022.
51. Dr. Raghu Chitta. Fundamentals and Applications of Photo-induced Electron and Energy Transfer in Online Two day Workshop for Faculty Development Programme "Light Harvesting Materials for Sustainable Energy" at Department of Chemistry, National institute of technology Warangal during 3-4 March, 2022.
52. Dr. Raghu Chitta. Photo-induced Electron Transfer in Carbon Nanostructures at Online One-Day Faculty Development Workshop" on "Atomically Thin metal membrane: A computational study at Department of Chemistry, National Institute of technology Warangal during 5th March, 2022.
53. Dr. B. Srinivas. Design and Synthesis of Spiro heterocyclics as Potent

Anticancer and Antitubercular Agents at National Conference on ‘’Emerging Trends In Chemical and Materials Science Research (ETCMSR-2022), Khammam during 25-26 Feb, 2022.

54. Dr. B. Srinivas. Structure Elucidation using NMR Spectroscopy at Online faculty development program on “Analytical Techniques on Nano-materials”, organized by E & ICT academy, NIT, Warangal and Department of Electronics and Communication Engineering, JSS Science and Technology University, Mysuru, during 18th – 25th July, 2022.
55. Dr. B. Srinivas. Green Chemistry: Non-conventional energy sources at "Online One-Day Faculty Development Workshop" on " Green Chemistry: A Solution for Sustainable Future " organized at Department of Chemistry, National Institute of Technology Warangal on 4th March, 2022.
56. Dr. B. Srinivas. Green Chemistry: Non-conventional energy sources at Online six-day faculty development programme on ‘’Teaching and Learning of Green Chemistry: Nurturing a New Generation of Chemists’’ organized at Department of Chemistry, National Institute of Technology Warangal on 26th -3rd March, 2021.
57. Dr. B. Srinivas. Role of Vitamins in Health and Immunity: SCoPE extension lecture on 01.10.2021 at NIT Warangal.
58. Dr. D. Kashinath, “Organocatalysis: An Update”, Faculty Development Program, Department of Chemistry, NIT Warangal, 6 March 2022.
59. Dr. D. Kashinath,“21st Century Solvents” Faculty Development Program, Department of Chemistry, NIT Warangal, 4 March 2022
60. Dr. D. Kashinath,“Science and Engineering for Sustainable Future”, Regional Science Centre (On National Science Day 2022), 28 Feb 2022.
61. Dr. D. Kashinath,“Modern Drug Discovery: A perception of Organic Chemists”, Faculty Development Program, Department of Chemistry, NIT Calicut, 4 March 2022
62. Dr. D. Kashinath,“Research Methodology”, Faculty Development Program, Department of Chemistry, Mahatma Gandhi University, Nalgonda, 4 March 2022
63. Dr. D. Kashinath,“Formulation Development”, National Seminar, St. Peter’s Institute of Pharmaceutical Sciences, Hanamkonda, March 2022
64. Dr. D. Kashinath,“Green Chemistry for sustainable Development” International Conference, Madhepura, Bihar, 2021
65. Dr. D. Kashinath,“Synthesis of Heterocyclic molecules” International

Conference, Department of Chemistry, SVNIT Surat, 2021

66. Dr. Hari Prasad Kokatla. "Recent Advances in Chemical and Environmental Sciences" (RACES-2022) at Kakateeya Government College, Hanumakonda on 22.09.2022.
67. Dr. Hari Prasad Kokatla. DST-INSPIRE MANAK 2022-23 ORIENTATION PROGRAMME on 26.08.2022
68. Recent Advances in Chemical and Environmental Sciences (RACES-2022) at Kakateeya DGovernament College, Hanumakonda on 22.09.2022.
69. Dr. Raghu Chitta. "Fluorescence Spectroscopy". High-End Workshop (KARYASHALA) at Vignan University, on 25th July, 2022.
70. Dr. Mukul Pradhan, Delivered lecture in the online faculty development program on "Anisotropic Nano-materials: Synthesis and Applications" at Department of Electronics & Communication Engineering, NIT Warangal on 24th July 2022.
71. Prof. Dhurke Kashinath demonstrated the functioning of LC-HRMS instrument to the participants of "A one-week training program on R & D equipment under STUTI-21-DST", NITW (Hub) on 23rd July 2022
72. Dr. Dhurke Kashinath demonstrated the functioning of LC-HRMS instrument to the participants of "A one-week training program on R & D equipment under STUTI-21-DST", NITW (Hub) on 2nd June 2022
73. Dr. Dhurke Kashinath demonstrated the functioning of LC-HRMS instrument to the participants of "A one-week training program on R & D equipment under STUTI-21-DST", NITW (Hub) on 1st June 2022
74. Prof. Dhurke Kashinath delivered a talk at RL Fine Chemicals Pvt Ltd., Bengaluru on 29th September 2022
75. Prof. K. Laxma Reddy delivered a talk on "Research Methodology" at Government Kakatiya Government Degree College, Hanumakonda on 7-7-2022
76. Prof. K. Laxma Reddy delivered a talk on "Prevention of Ozone Layer Depletion-Issues and Challenges" at Telangana State Residential High School and College, Hunter Road, Hanumakonda, on 16-9-2022.
77. Dr. M. Raghasudha delivered a lecture on the topic of "Corrosion" in three week industrial training programme for Chemistry Faculty of Government Polytechnic in Telangana State" from 06-06-2022 to 25-06-2022 at Department of Chemistry, Kakatiya University, Warangal

PhD Research guidance

1. Allaka Bhargava Sai (Roll. No. 701641) completed his Ph.D. with the title "Synthesis and anti-tubercular activity of heterocyclic and spiro compounds" under the guidance of Dr. B. Srinivas in April 2022.
2. V V N Phanikumar (Roll. No. 701450) completed his Ph.D. with the title "Investigation on natural and synthetic polymers as an aqueous binder for anodes of lithium-ion batteries (LIBs)" under the guidance of Prof. K. V. Gobi in April 2021.
3. Kummari Shekher (Roll No.716060) completed his Ph.D. with the title "Development of Hybrid Graphitic Carbon nanocomposites as Sensing Platform for Pharmaceutical Drugs in-vitro in Biological Fluid" under the guidance of Prof. K. V. Gobi in July 2021.
4. Suresh Siliveri (Roll No. 716192), Completed his Ph.D. with the 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" under the guidance of Prof. N. Venkatathri in July 2021.

Awards, Outreach Activities, Achievements and Distinctions of Faculty members

1. Dr. S. Nagarajan has been selected as Indian National Young Academy of Sciences (INYAS)-INSA, New Delhi, India for the period of 2021-2025
2. Dr. S. Nagarajan has been selected as Life Member of Association of Carbohydrate Chemists and Technologists (India) from 2022 onwards
3. Dr. Raghu Chitta, Selected as an Associate Fellow, Telangana Academy od Sciences, 2022.
4. Dr. B. Srinivas has been selected as Life Member of Chemical Research Society of India (CRSI) from 2020 onwards
5. Prof. K. Laxma Reddy Received Memento in the Workshop at Kolkata from Director, Vigyan Prasar, New Delhi



6. Prof. N. Venkatathri, Best Science Researcher Award - 2019, National Institute of Technology Warangal in 2022.
7. Prof. N. Venkatathri, Guest Editor, Frontiers in Chemistry (Impact Factor: 5.545) during 2022.
8. Prof. N. Venkatathri, Associate Editor, Materials International, Bucharest, Romania, 2019 - till date.
9. Prof. N. Venkatathri, Member, Board of Studies, Balaji Institute of Technology and Science, Narsampet, Warangal, 2021- till date.
10. Prof. N. Venkatathri, ResearchGate Score (43.66) is one among the top two percent members in the world (2022).
11. Prof. N. Venkatathri, Indian Examiner, Ph.D. Thesis evaluation: IITMadras, Chennai, CSIR-National Chemical Laboratory, Pune, CSIR-Indian Institute of Petroleum, Dehradun, CSIR-Indian Institute of Chemical Technology, Hyderabad, Anna University, Chennai and Bharathidasan University, Trichy (2022).
12. Miss. Gorle Kavyanjali has recieved merit scholarship from the institute for securing highest grade in the 1st year (Int M.Sc. in chemistry)



13. Prof. N. Venkatathri, An International Competitor for the Chemistry Nobel Prize (2021) in Organocatalysis Research Area.
14. Prof. N. Venkatathri, Reviewer for Journal of Hazardous Materials (Impact Factor: 14.22) ACS Sustainable Chemistry and Engineering (Impact Factor: 8.41), Catalysis Today (Impact Factor: 6.56), Microporous and Mesoporous Materials (Impact Factor : 5.84), Inorganic Chemistry (Impact Factor : 5.2) and Journal of Molecular Structure (Impact Factor: 3.84) (2022).
15. Prof. N. Venkatathri, Cell Coordinator & Liaison Officer (OBC) (2022- till date), National Institute of Technology, Warangal.

16. Prof. N. Venkatathri, Advisor, Green Trust (An International Non-Governmental organization focusing on Science Popularization and Environment), Vellore, India, (2022- till date).
17. Prof. Dhurke Kashinath visited various schools and colleges and delivered lectures on different topics

1. JNV, Mamunooru, Warangal
2. St. Ann's High School, Raghunathpalli, Jangoan Dist
3. Chaitanya School, Kadipikonda, Kazipet
4. ZPHS, Sirpur Kaghaznagar
5. Govt. Degree College, Sirpur Kaghaznagar
6. Govt. Degree College, Hanamkonda
7. Mahatma Jyothiba Phule School/Jr College (Girls), Hunter Road, Hanamkonda
8. KGBV, Dharmasagar
9. TSRS/JC (Boys), Valair, Hnk Dist
10. TSRS (Girls) Hasanparthy, Hnk Dist
11. TSRJC (Girls), Hasanparthy, Hnk Dist

New Lab Equipments/software/Workstations Installed

1. Purchased & Installed Liquid Nitrogen Plant
2. Purchased & Installed Oil-free scroll compressor for 400 MHz NMR instrument. (Draft) Include photos if any
3. Dr. Raghu Chitta. Electrochemical workstation (CH Instruments) procured under the DST SERB Grant DST/CRG/2018/002661
4. Dr. B. Srinivas. Procured Solid-state probe for 400 MHz NMR Instrument under TEQIP-III Grants.
5. Dr. Ravinder Pawar. 3 Node Cluster procured under DST SERB Grant ECR/2018/002346.
6. Dr. Ravinder Pawar. VASP software procured under DST SERB Grant ECR/2018/002346.
7. Dr. Ravinder Pawar. 4 computing Nodes Cluster procured under DST SERB Grant EEQ/2019/000656.
8. Dr. Ravinder Pawar. AMS-SCM software procured under DST SERB Grant EEQ/2019/000656.
9. Dr. Mukul Pradhan. Electrochemical workstation (CH Instruments) procured under the DST INSPIRE Faculty Grant DST/ INSPIRE Faculty Award /2016/DST/INSPIRE/04/2015/003227.

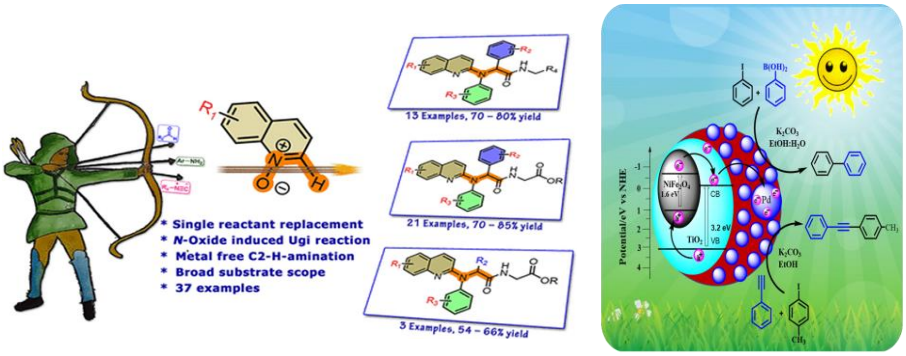
Best student papers and other achievements

S.No	Name	Achievement Details	Date
1	A. A. Sangolkar, R. Agrawal, R. Pawar	BEST ORAL PRESENTATION AWARD to AAS in 6th International Conference on Recent Advances in Material Chemistry.	17th – 19th February, 2022
2	Pooja, R. Pawar	ACS SPONSORED BEST POSTER AWARD to pooja in National Conference on Molecular Modelling and Simulations 2022	02nd March, 2022

Research Appreciations/Recognition

1. Palladium-Supported Polydopamine-Coated NiFe2O4@TiO2: A Sole Photocatalyst for Suzuki and Sonogashira Coupling Reactions under Sunlight IrradiationPrashanth Goud Banda and Raghasudha Mucherla

ACS Omega 2022, 7, 29356-29368 [Impact factor 4.132]

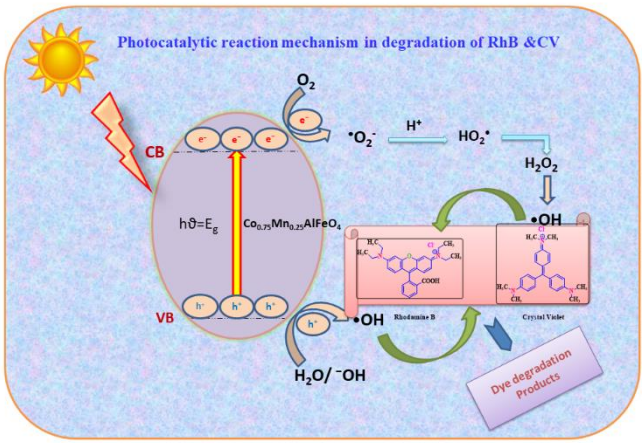


A magnetically retrievable, efficient, sole palladium (Pd) supported polydopamine coated core@shell ($NiFe_2O_4$@TiO_2) heterogeneous nanophotocatalyst has been designed and developed for Suzuki and Sonogashira coupling reactions under sunlight irradiation with the simultaneous utilisation of photogenerated e^-- h^+ pairs

2. Photodegradation of Rhodamine B and Crystal Violet using Al doped Co-Mn nanoferrites and Dielectric Study, Shankar Barapati, Raghasudha Mucherla*, Ramesh Gade, P. Veera Somaiah

The Journal of Materials Science: Materials in Electronics, 2022

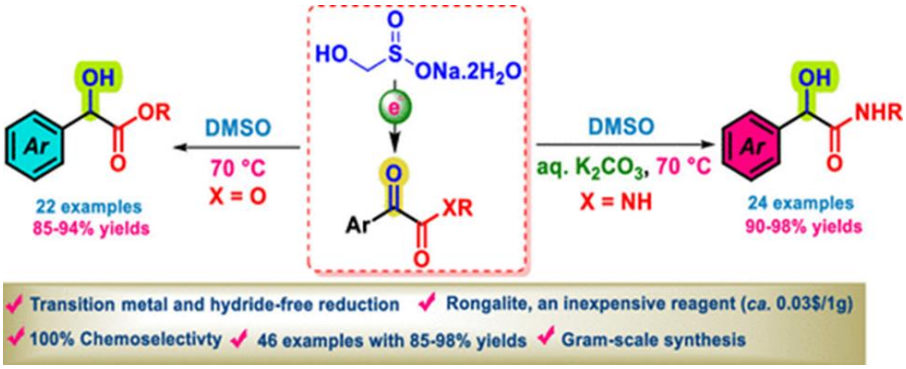
DOI: https://doi.org/10.1007/s10854-022-09219-0, [Impact factor 2.779] [Springer]



Aluminium doped Co-Mn ferrites as a photocatalyst was synthesized via citrate-gel method for the degradation of toxic pollutants of water such as Rhodamine B (RhB), Crystal violet (CV) under visible light for their potential application in wastewater treatment.

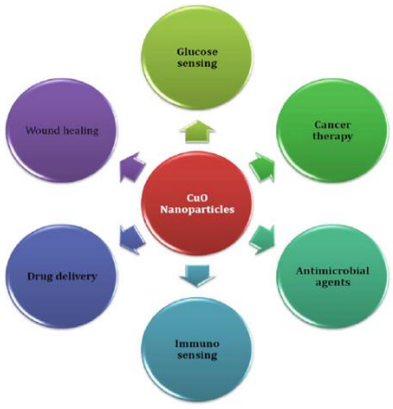
N-Oxide-Induced Ugi Reaction: A Rapid Access to Quinoline-C2-amino Amides via Deoxygenative C(sp^2)–H Functionalization, Naveenkumar Anugu, Sanjeeva Thunga, Soumya Poshala, and Hari Prasad Kokatla* The Journal of Organic Chemistry, 2022 87, 15, 10435-10440, [Impact Factor: 4.354]

1. Rongalite-Mediated Transition Metal- and Hydride-Free Chemoselective Reduction of α-Keto Esters and α-Keto Amides. Sivaparwathi Golla and Hari Prasad Kokatla*



The Journal of Organic Chemistry, 2022 87, 15, 10435-10440, [Impact Factor: 4.354] A transition metal- and hydride-free protocol has been developed for the chemoselective reduction of α-keto esters and α-keto amides using rongalite as a reducing agent. Here, rongalite acts as a hydride-free reducing agent via a radical mechanism.

2. 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. THis chapter artwork highlighted in the book entitled "Environmental Chemistry for a Sustainable World"



Application of CuO nanoparticles in the fields of medicine and biology (Chap. 9)

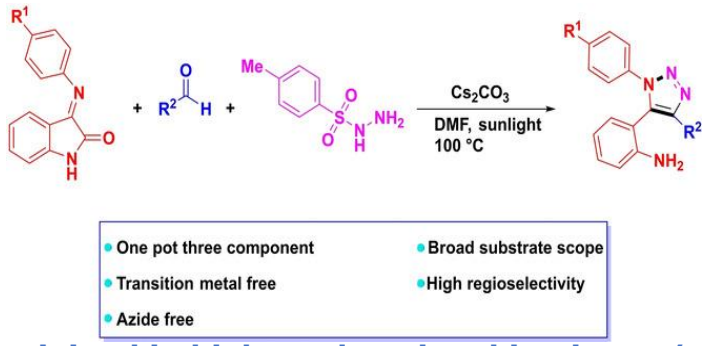
3. A Facile Synthesis of Amphiphilic N-glycosyl naphthalimides and Fabrication of Flexible Semiconductor using Molecular Self-Assembly

Arun Kumar Rachamalla, Vara Prasad Rebaka, Tohira Banoo, Ravinder Pawar, Mohammad Faizan, Krishnamoorthy Lalitha, Subbiah Nagarajan* Green Chem., 2022, 24, 2451, [Impact Factor: 11.03]

Using natural processes as a guiding tool, the scientific community is actively involved to achieve substantial advances at the interface of supramolecular chemistry and materials design. In this report, we have synthesized a series of amphiphilic N-glycosyl naphthalimides using environmentally benign protocols in good yields. For the first time, an exclusive formation of beta-anomeric product using ammonium sulfate catalyst, FDA approved GRAS chemical has been thoroughly investigated. To explore the potential of N-glycosyl naphthalimides in the field of supramolecular materials, molecular self-assembly studies were systematically performed in a wide range of solvents and found to form hydrogel, orgnanogel and oleogel. The existence of molecular level interactions and assembly patterns were identified using FT-IR, NMR, SAXRD, UV-vis and Fluorescence spectral methods and proposed a suitable assembly mechanism. Morphology of supramolecular architecture with respect to the molecular structure was identified using optical microscopy and scanning electron microscopy. Rheological studies clearly disclose the strength of soft material and processability. Conductivity measurements on assembled thin films developed by drop casting of N-glycosyl naphthalimides reveals the semiconducting behavior. Interestingly, highly flexible semiconducting material derived by anchoring of gelator on cotton fabric through hydrogen bonding displayed enhanced conducting properties than the assembled thin film. The demonstrated flexible organic semiconducting material obtained via a more sustainable pathway would provide an opportunity to fabricate green electronics.



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]



Details of students joined in higher educational institutes/companies

Roll No	Name	Project details	Placement details	Current Status
716189	Venkatesh Ravula	As Post-doctoral Associate	Instem Bangalore	Working
	Venkanna M	Research Scientist	GVK Bio, Hyderabad	Working
714053	Vinay Pogaku	Associate Scientist	GVK BioSciences, Hyderabad	Working
701641	Allaka Bhargava Sai	Associate Scientist	GVK BioSciences, Hyderabad	Working
714054	Dr. M. Saikumar	Postdoctoral fellow	Nano Biomimetic Material Lab Department of Chemistry & Nanoscience Ewha Womans University Seoul-03760	Working
716058	Dr. G. Ambedkar	Ad-hoc Faculty	Department of Chemistry, NIT Warangal	Working

Department Association/Students Clubs Activities

1. A Five-day webinar on "Applied Optics and Photonics (AOP)"-5-9th November, 2020 SPIE, NIT Warangal; Co-Ordinator: Dr. Sourabh Roy (Draft) Include photos if any

Events during 2021-22 by Chemistry Association by Dr. M. Raghasudha as Faculty Advisor

1. Communication Essentials by Dr. Spoorthi, Assistant Professor, Department of Humanities and Social Sciences, NITW on 21-02-2021
2. Recorded video link:
https://drive.google.com/file/d/1_p7XXMBaI89ziWk_6700qD8IDy5Do6Oy/view?usp=sharing
3. 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.

Recorded link:
https://drive.google.com/file/d/1xyPFyka4qS9A_SVosrPL5wygLV_dtlOQ/view?usp=sharing

4. Career guidance by Alumni of the department to pursue Ph.D. in abroad on 19th September 2021

Recorded video link:
https://drive.google.com/file/d/1H6ot45wrWh4tmz8H31ds2OZVXDjXm3tV/view?usp=sharing

5. Invited talk by Prof. A. Ramachandraiah, Professor of Chemistry (HAG) Retired entitled "MICHAEL FARADAY -A Scientist to be inspired by..." on 24th September 2021.

Recorded video link:
https://drive.google.com/file/d/12UrQNX5p7qbC56ZuopQWh2kX8968QMoQ/view?usp=sharing

6. 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
7. 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

Recorded video link:
https://drive.google.com/file/d/1av6OW1V7BZ5L-ZXhBWNUt78BGylqHVBt/view?usp=sharing

8. Robert Howard Grubbs Memorial Lecture by Prof. Sambashiva RaoKotha, IIT Bombay entitled on "Olefin Metathesis" 30-12-2021
9. Prof. Adusumilli Srikrishna Memorial Lecture By Dr. Beeraiah Baire Associate Professor Department of Chemistry Indian Institute of Technology Madras, Chennai, on "Acid Catalyzed Cascade Reactions for Rapid Generation of Complexity" on 20-01-2022,

During Technozion 18-02-2022

10. Extempore speech: This was used to assess the participants' presence of mind, awareness, language fluency, and confidence. The participants were given a random chemistry-related topic and will be required to deliver a speech on it.
11. Chem-o-story-It introduces the story-telling narrative with theatrics and improvisation with chemistry-named reactions and reagents. It is an embellishment of sharing stories related to concepts involved in chemical reactions, often by using the initials or referring to structural features.

12. Memistry : It basically involves memes in the field of chemistry, which can resonate with people, generating hilarious interpretations.
13. Invited talk by Prof. A. Ramachandraiah, Professor of Chemistry (HAG) Retired entitled "Albert Einstein-A Source of inspiration" on 14th March 2022.
14. Ek Bharat Shreshtha Bharat (EBSB) club: Dr. B. Srinivas, Faculty-incharge: Visited ''NIT Kurukshetra, Haryana for cultural exchange program'' along 54 NITW students from 10-15 Sept 2022 with the EBSB students on 27.03.2022.
15. Ek Bharat Shreshtha Bharat (EBSB) club: Dr. B. Srinivas, Faculty-incharge: Visited ''UNESCO declared Kakatiya Ramappa Temple a World Heritage site'' along with the EBSB students on 27.03.2022.
16. Ek Bharat Shreshtha Bharat (EBSB) club: Dr. B. Srinivas, Faculty-incharge: Organized an ''Ashtavadhanam'' program by Avadhani Sri. Thirukkovaluru Sriharsha on 03.04.2022 at NIT Warangal.

Guest Lectures by Foreign Experts

Dr. Suresh Gadde, Assistant Professor, Department of Cellular and Molecular Medicine, University of Ottawa, Canada delivered a Lecture cum Interactive Session by "Nanotechnology Based Therapeutic Approaches in Healthcare Applications"in Chandrasekhar Hall, Seminar Hall Complex on 11-07-2022
2.

Dr. Prashanth K. Poddutoori, Assistant Professor, University of Minnesota Duluth, Minnesota, U.S.A., delivered Lecture cum Interactive Session on "Main Group Porphyrin Chemistry" in Ramanujan Hall, Seminar Hall complex on 10-08-2022 and described the opportunities at University of Minnesota Duluth, Minn









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



Prof. M. Ravindar Reddy
Professor & (HoD)
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
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, Financial Econometrics



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, Business Analytics

Publications (in Peer Reviewed Journals)

Gopal, P.R.C., Rana, N.P., Krishna, T.V., Ramkumar M (2022) Impact of big data analytics on supply chain performance: an analysis of influencing factors. Annals of Operations Research. (In press) https://doi.org/10.1007/s10479-022-04749-6

Rama Devi, V., & Venugopal, M. (2022). The Role of Social Media in Rural Development – A Study in Telangana State, Journal of Rural Development (In press) (Scopus indexed)

Mishra, A., **Kompella, L.**, Sangavarapu, L. M., & Varam, S. (2021). Ensemblebased Machine Learning Models for Phase Prediction in High Entropy Alloys. Computational Materials Science, Vol. ahead-of-print No. ahead-of-print. Accepted for publication on 3Nov2021. https://doi.org/10.1016/j.commatsci.2021.111025

P. Sanjeeva Kumar, Prof. P. Ramlal (2022) paper titled as "Digital transformation of banks in India: Impact on Employee Well-being and Employee Engagement" is accepted for publication "Contemporary issues in business and government journal, ranked C in ABDC journals list and WOS.

Faculty Development Programmes (FDPs)

FDP on Statistics for Business Research & SPSS Applications during July 18-25, 2022

FDP on Machine Learning and Energy Analytics during Sep 12 –Dec 19, 2021

FDP on Business Analysis in Decision Making during April 26–30, 2022.

Research Funded Projects

Dr. K. Padma, Dr. PRC Gopal and Dr. T. Rahul – "Impact Study on Installation of CCTV cameras under CSR activities of Manakosam Project at Visakhapatnam Steel Plant" (Completed) (Amount Rs.1,41,000)

Dr. G. Sunitha (PI)- A Project on "Solar Power Fertilizer Sprayer", sponsored by Unnat Bharath Abhiyan. (Ongoing) (Amount Rs.1,00,000)

Dr. V. Rama Devi (Co-PI)- Project titled "Antecedents and outcomes of E learning adoption by the students of Higher educational institutions in India", 2022 sponsored by ICSSR, New Delhi as Project Co-director. (Project Number: ICSSR/285/11/2021-22 (Ongoing) (Amount Rs.3,00,000)

Student Achievements and Activities

Key Corporate and Leadership Webinar Series.

The Abhiyan club organizes events on daily basis. Last year the club was able to organize 65 events. Some of the activities are:

Book Reviews
Industry Analysis
Business News Review
Case Studies
Business Quiz using Kahoot
Aptitude and Group Discussions
Ad Making, Idea Pitches and strategy based games

Alumni Relations Team (ART) Organized

16 sessions with industry leaders
2 sessions with CXOs 4 sessions with Alumni

Corporate and Leadership Webinar Series







Rajesh Srinivasan (Modern Marketing Strategist)
Topic: Rules of Modern Marketing
Date: 21 November, 2021





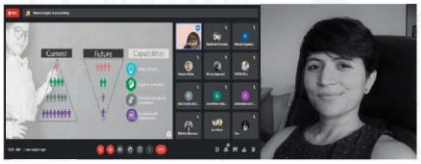
Prabhat Kumar Bhakat (Procurement & Supply Chain Strategist, Start-up Enthusiast & Mentor)
Topic: Digital Supply Chain Management
Date: 5 December, 2021



Sanchita Ganguly (Brand Building Head - UltraTech)
Topic: Brand Building in today's time
Date: 31 October, 2021

Namrata Dhasmana (Global People – Business – Culture Leader)
Topic: Strength based Leadership)
Date: 7 November, 2021





Meera Sanghvi (Lead – Robotic Process Automation, HP)
Topic: Skills needed for the Workforce
Date: 14 November, 2021



Saurav Sarkar (Manager at Axis Bank
Topic: Leadership and Technology Financial Industry
Date: 19 September, 2021

Ashish Kumar (Assistant Manager at TCS)
Topic: Bridging the gap between Academia and Industry in India
Date: 10 October, 2021



Social Outreach Team Plantation Drive

Around 65 plants were planted in two phases by our alumni, students and their families during July 2nd week of 2022.

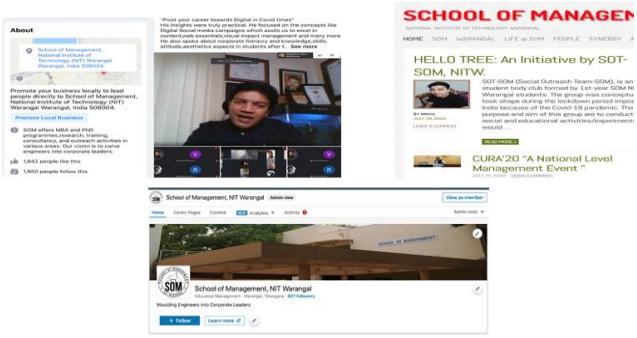




Social Media campaigns were run on "Stop food wastage"

Branding and Social Media Team





SoM page on facebook, Linkedin and Instagram are regularly maintained.
Facebook has 1940 followers
Linkedin has 2778 followers (We stand first among all management Departments in terms of followers at NITs)
Instagram has 277 followers (lost our page at 750 followers and we restarted)

Research guidance

No. of students admitted during the academic year: 08

News Letter Launch

School of Management started quarterly newsletter. It focuses on activities, which happened in every quarter at school.

10 Issues in three volumes have been published

A department blog where articles are written by students

A department blog where articles are written by students
SoM page on facebook, Linkedin and Instagram are regularly maintained.
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Linkedin has 2778 followers (We stand first among all management Departments in terms of followers at NITs)
Instagram has 277 followers (lost our page at 750 followers and we restarted)



Department of Humanities and Social Sciences

The Department of Humanities and Social Sciences at NIT Warangal was started in 2009. The Department offers courses across the board ranging from basic to advanced courses in English Communication and Two Foreign languages catering to diverse needs of 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 well recognized and are members of many Boards across colleges affiliated to state level universities.

Last 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 is presently offering a Minor program to be offered at UG Level titled 'Professional Communication Skills for STEM

The Department of H& SS constantly thrives to impart quality education and life skills that enable students to become 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 Dhishna Pannikot Associate Professor	PhD	Travel Writing & Cultural Studies, English and Comparative Literature, Language and Communication, Gender Studies	
4	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	

5	Dr.P.Madhumathi Assistant professor-Grade II	Ph.D	Teacher Education, ELT, EAP, Virtual Education, Cultural Studies	
6	Dr. R. Vennela, Assistant Professor-Grade II	Ph. D	Bilingual education, Lexicography, Sociolinguistics	

Journal Publications

1. Nirmala Vinodh Ch [1] Madhavi Kesari[2] 'Teaching English with the help of Musical intelligence in the Journal of Emerging Technologies and Innovative Research, in the International Open Access , Peer-reviewed, Refereed Journal ISSN: 2349-5162 Impact factor 7.95 Calculate by Google and Semantic Scholar, UGC Approved Journal No 63975 2022, JETIR September 2021, Volume 8, Issue 9. www.jetir.org (ISSN-2349-5162).
2. Tanupriya & Dhishna Pannikot. "Cultural Violence, Violent Gendering, and Abjection: Discourses on Sites of Violence the Sites of Violence through Trans Women's Narratives from India." Journal of International Women's studies. Volume 24 Issue 6, On Violence and Resistance: Narratives of Women in South Asia. Oct 2022. https://vc.bridgew.edu /jiws/vol24/iss6/8.
3. Pranamya Bhat & Dhishna Pannikot. ""To Become a Man": Rewards, Punishments and Masculinities in Shyam Selvadurai's Funny Boy." Journal of Positive School Psychology. Vol 6 Issue No. 2. 4456-4462. April 2022. https://journalppw.com/ index.php/jpsp /article/view/2810 .
4. Tanupriya & Dhishna Pannikot. "Enactment of Gender and Performing Selves: A Study on Hijra Performativity." Journal of Language, Literature and Culture. Routledge: Taylor & Francis Group. 1-22. 22 April 2021. https://doi.org/10.1080/20512856.2021. 1882027

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".

Funded Research Projects (including SPARC etc.)

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 (Ambedkar National 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).

Books Published

Dr. K.Madhavi, published the book titled "Role of Women in Technical Education: Entrepreneurship, Research and Consultancy"(RWTE) with Cambridge Scholars Publishing, UK, ISBN- 978-1-5275-7770-1; January 2022.

Book Chapters

Kesari.,Madhavi, Published 'Factors Affecting the Gross Enrollment Ratio (GER)of Women in Higher Education: A Cultural Perspective for Women Empowerment' in the book titled 'Role of Women in Technical Education: Entrepreneurship, Research and Consultancy'(RWTE), published by Cambridge Scholars Publishing, London. January 2022 ISBN- 978-1-5275-7770-1.

Kesari., Madhavi and Vidyasre , Published 'The Socio Economics of the Female Characters in the 'God of Small Things' in the book titled 'Role of Women in Technical Education: Entrepreneurship, Research and Consultancy'(RWTE), published by Cambridge Scholars Publishing, London. January 2022 ISBN-978-1-5275-7770-1

Guest Talks/webinars delivered

1. Dr. K. Madhavi delivered Expert Lecture, on Action Research: Current Research Trends in ELT & NEP- 2020 and Its Impact on Designing New

Courses" from 10.00 am to 1.15 pm on 20-07-2022 (Wednesday) through online during Refresher Course on "English Language Teaching" conducted by UGC-Human Resource Development Centre, JNTUH from 11-07-2022 to 23-07-2022.

2. Dr. K. Madhavi delivered Expert Lecture, on 'Benefits of Reading' during Refresher Course on "English Language Teaching" conducted by UGC-Human Resource Development Centre, JNTUH on 16 th July, 2022, for from 11-07-2022 to 23-07-2022.
3. Dr. K. Madhavi delivered an expert lecture on 'EXPLORING INNOVATIVE IDEAS FOR RESEARCH AT SECONDARY LEVEL EDUCATION' during the two day Dissemination Event of Exploratory Action Research Project, sponsored by A S. Hornby Educational Trust, UK organized by English Language Teachers' Association (ELTA), Telangana in association with the department of Humanities and Social Sciences, NITW on 19th and 20th June 2022.
4. Dr. K. Madhavi delivered a lecture on 'Script Writing and Media Relations' 'on 30th March 2022, at a Three Week Industrial Training Programme for English and CCP Faculty of Govt. Polytechnics, TS (March 14- April 06 2022) organised by the Department of English, Kakatiya University.
5. Dr. K.Madhavi delivered a Keynote in the Orientation Programme for the teachers of ENGLISH on 'Assessment Procedures' conducted by ELTA-Hanamkonda on 24th March 2022.
6. Dr. K.Madhavi delivered an expert talk on 'Blended Learning: A Means of Adapting to the New Normal' Palamuru university, in a One-Week Online Faculty Development Programme (FDP) on the theme "REMAPPING TEACHING AND RESEARCH IN ENGLISH LANGUAGE AND LITERATURE – APPROACHES, METHODS AND TECHNIQUES" organized by the Department of English, Palamuru University, Mahabubnagar, in collaboration with UGC-HRDC University of Hyderabad, from 21-26 February 2022.
7. Dr. K.Madhavi delivered an expert talk on "Digital Tools & Techniques for Effective Class Room Management 'on 10th Feb 2022, in the AICTE Sponsored Two-Day National Conference on Digital Evolution in English Language Teaching and Learning in Higher Education, organised by the Department of English, Anurag University from February 10-11, 2022.
8. Dr. K.Madhavi delivered expert lecture on 'Relationships and Ragging' as part of the Orientation Programme conducted for I.B.Tech students at

VBIT, Ghatkesar , Hyderabad on 23rd November 2021.

9. Dr. K.Madhavi delivered expert lecture on 'Academic Writing Skills Essentials of Modern and Efficient Teaching Practices in Higher Education' as part of the One Week FDP organized by TLC, from 11 th to 17 th November, 2021 at SNNC ACS College, Kusumba, Dhule Maharashtra.
10. 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.
11. 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.
12. Dr. K.Madhavi has 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.
13. 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.
14. 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.
15. 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.
16. Dr Dhishna P delivered a talk on "Transitioning Gender Identities of

Women and contemporary challenges" in the One Day National Seminar on "Women Empowerment and Gender Sensitization: Patriarchy and the Status of Women in Society" organized by the Internal Complaints Committee Against Sexual Harassment of Women in Workplace (under aegis of IQAC) and KVA DAV College for Women, Karnal, New Delhi, on 7 May 2022.

17. Dr Dhishna P delivered an online talk on "Conceptualizing Literary Concerns in Travel Writing" in a National webinar "El Viage: Discourses on Travel Writing and Theory", organized by the Department of English, St Joseph's College, Irinjalakuda, Kerala" on 28 January 2022

18. Dr Dhishna P delivered an online talk on "Corporate Communication", for the FDP on "Organizational Behaviour Dynamics & Professional Ethics" on 5th July 2021 organized by the Department of Humanities and Social Sciences, held from 1-5 July 2021 at VNIT Nagpur.

19. Dr. R. Vennela delivered training on Research Methodology as a Resource Person for the Refresher Course in English Language (22nd August - 3rd September, 2022) for English Faculty on 25th and 26th August 2022 at the HRD Centre, University of Hyderabad, Hyderabad.

Awards/ Recognitions/ Achievements

Dr Dhishna P received Sri Sarvepalli Radhakrishnan "The Best Teacher award in English and Comparative Literature" on 5th Sept 2021 organized by CPACE and IMRF, Andrapradesh, India.

Department Outreach Activities

- Nominated as Coordinator, ERP , for SMILE project for NITW MIS Since 26 th October, 2021
- Member Core Steering Committee of Vigyan Prasar, DST Govt of India sanctioned project to NIT Warangal entitled "Science Communication, Popularization and Extension" (SCoPE) Since 30 th September 2021.
- Dr. R. Vennela, ERP Coordinator, SMILE, NITW, 09.09.2021 – continuing.

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

Dr. R. Vennela, Faculty advisor of Minor Program (H&SS), 09.09.2021 – continuing.

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 workin a world dominated by technical innovations but regular physical activity is necessary if our bodyis 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, activeparticipation in games and sports fosters the attitude of sportsmanship, fairness and team spirit. Ithas been internationally recognized since long that if the schools and colleges do not provide outletfor 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 isphysically 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 thisprestigious 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 withFlood lights
- Kho-Kho Ground, Football, Cricket fields and with 2 artificial turf net practising cricket pitcheswith 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 theultra-mega hostel).
- Gym facilities 2 common halls in the mega hostels and 2 rooms in the ultra-mega block 1 hall inthe 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 1stblock.

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 coursefor 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 facilityin 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 PhysicalEducation activities
- To prepare institute teams towards participation in the Extramural Competitions like Inter NIT orInter 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 localtournaments.
- 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 11.30am.
















NATIONAL INSTITUTE
OF
TECHNOLOGY
WARANGAL

BOOK RELEASED

In connection with International Day of Yoga, book on "NEW INDIA, FIT INDIA- YOUNG INDIA- THROUGH INDIA" Compiled and Edited by Prof. P. Ravikumar been released by Hon'ble Director, Prof. N. V Ramana Rao on the eve of International Day of Yoga celebration 21st June 2022.



ACTIVITIES OF THE DEPARTMENT

- Facilitating the student and staff community for the utilization of the available infrastructure facility in the institute to be physically fit and wellbeing.
- To Prepare institute teams towards participation in the Extramural Competitions like Inter NIT or Inter Universities and other local tournaments in various sports and games.

ORGANISATION OF TOURNAMENTS

- Conducting of Intramural competitions for students' community and friendly matches to Staff.
- 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 and Students.
- Organising Sports activities of various Departments & Associations.

EXTRA ACADEMIC ACTIVITIES

- Conducting Induction Programme for 1st year students and going for Talent Identification.
- Conducting regularly Extra Academic Activities programmes for the 1st year students which is a mandatory one. The 15 sections are divided among following 8 faculty members:
- Dr. P. Ravi Kumar
- Dr. R. Dhayanithi
- Dr.P.Madhusudhan Reddy
- Dr.P.Prasanth

- Dr.D.Hari
- Mr. Ningthoujam Khagemba Singh (SAS Assistant)
- Mr. Gadde Subhash (SAS Assistant)
- Mr. A. Rakesh (SAS Assistant)

Prof. P. Ravikumar, Professor, DPE and Executive member of NAAPES attended the Annual Executive Board Meeting on 18th July 2022 held at Manipal University, Manipal, Karnataka. Also he has interacted with the Sports Science students of Manipal Academy of Higher Education, Manipal campus.



Outreach Activities

- Dr.P. Ravi Kumar delivered a lecture on "Health,Wellness & Personal Fitness" in the "InternationalWebinar 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 aLecture 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.

External Assignments by the Department Faculties

- Prof. P. Ravi Kumar, was **Key note speaker** at SK University, Ananthapur, AP on the eve of National Sports Day 29th August 2021.
- Prof. P. Ravi Kumar, **Key note speaker** at Chaitanya University on the occasion of Orientation programme for New students batch of 2021-22.
- Prof. P. Madhusudan Reddy, presented the paper in International

Conference titled **"Effect of Combined Mental and Physical practice on learning motor skills in Volleyball",** organized by International Society of Sports Psychology 15th world congress, Taipei from Sep 30th to October 4th 2021.

- Dr.P.Prasanth, Dr.D.Hari and Dr.Ravi Kumar have given **lecture on Motivation, Career guidance and Fitness** to the B.P.Ed students of Vagdevi College of Physical Education during the orientation programme on 22nd Oct 2021.
- Prof. P. Ravikumar, was invited as Resource Person for the Faculty Development Programme **" Body Posture Issues & Remedies for Software Professionals",** Organised by NBKR Institute of Science & Technology, Wakadu, Nellore on 16th March 2022.
- Prof. P. Ravikumar, was invited as Chief Guest to Inaugurate **The National Chess Tournament** for Degree Colleges 2021-22 on 10th June, Organised by Pingle Govt College for Women, Warangal.
- Prof. P. Ravikumar, Dr.P.Prasanth, Sr.SASO and Dr.D.Hari, SASO, Department of Physical Education visited Z.P.H.S Chinna Pendiyal, Warangal Rural on 5th July 2022 as part of **Research work.**
- Prof. P. Ravikumar, Executive member of NAAPES attended the **Annual Executive Board Meeting** on 18th July 2022 held at Manipal University, Manipal, Karnataka.
- Dr. P. Prasanth, Sr. SAS Officer has attended the **All India Inter NIT Sports Board Meeting** held at National Institute of Technology Uttarkhand from 14th June to 15th of June 2022.
- Prof. P. Ravikumar, given a talk on **"Importance of Physical Fitness"** to the newly joined Non-teaching staffs on 22nd June 2022.
- Dr. D. Hari, SASO, Department of Physical Education participated in Three Days online Seminar on **"Yoga for Mind and Nutrition for the body",** held on 27 to 29th June 2022 organised by Dayanand College, Hisar, Haryana on the occasion of 8th International Day of Yoga 2022.
- Prof. P. Ravikumar, given a talk on **"Importance of Physical Wellbeing"** to the newly joined Non-teaching staffs on 22nd June 2022.
- **Prof. P. Ravikumar,** was holding the position of **Chairman**, Board of Studies in Physical Education, Kakatiya University since January, 2020.
- Prof. P. Ravikumar, Editor-NAPESS- Journal of Physical Education and Sports Science, ISSN 2229-7049 (Print)
- Prof. P. Ravikumar, Editor-NAPESS- Journal of Physical Education and Sports Science, ISSN 2229-7316 (On line).
- Prof. P. Ravikumar, Associate Editor-NAPESS- International Journal for Innovative Research in Multidisciplinary Field, ISSN 2455-0620 (Scientific Journal Impact Factor: 6.719).

Students/Faculties sports achievements in Intercollegiate level

- Badminton and Table Tennis teams of NIT Warangal have participated in the **KITS ZONE SPORTS TOURNAMENT (Inter Collegiate)** organised by KITS Huzurabad from 16th to 17th March 2022 and Secured first position in both events.
- Badminton and Basketball (Men & Women), Volleyball Men and Kabaddi Men teams have participated in the **KITS TROPHY 2022** Inter Collegiate tournament from 23rd to 24th of March 2022 organized by KITS Warangal. Badminton, Basketball (Men & Women) teams secured First position.
- Dr.Prasanth.P, Sr. SASO, has participated in **1st Pan India Masters Tournament** from 13 to 15th May 2022 held at Bangalore.
- Mr. G. Subhash, Mr. A.Rakesh and N.K.Singh SAS Assistants have participated in Bicycle Rally organized by Nehru Yuva Kendra, Warangal on the occasion of **World Bicycle Day** on 3rd June 2022.
- Dr.P. Prasanth, Sr.SASO participated in **25 km Bicycle Rally (Cyclothon 2022)** on 26th June 2022 organised by Police Department, Warangal.

ACTIVITIES ORGANISED IN THE INSTITUTE BY THE DEPARTMENT OF PHYSICAL EDUCATION

- Scholars Premier League, 11th Season (SPL 2021) for Ph.D students organized by the Department of Physical Education from 14-12-2021 to 02-01-2022.
- Virtual Surya Namaskara was organized by the Department on the occasion of "Makara Sankranthi", 14-01-2022, as a part of Azadi Ka Amrit Mahotsav.
- Traditional Games of India for the children's are demonstrated by the kids of Faculty and Staff of the NIT Warangal Campus on the occasion of 73rd Republic Day Celebration on 26th Jan 2022.
- Faculty Premier League-2022 (1ST FPL- Cricket) was organized by the Department of Physical Education from February 23rd to 30th 2022.
- Faculty Badminton Premier League (FPL-1) was organized from 25th to 26th March 2022.
- Intra Badminton Premier League (IBPL-2022) for the Students and Staff was conducted from 1st to 3rd April 2022.
- Organized NITW Football Premier League from 17th to 24th April 2022.
- Chess Premier League for the students was organized on 19. April. 2022.
- Yoga postures display through standees installed inside the campus in various places on 28th April 2022 to till 21st June 2022 to promote IDY 2022 in connection with **8th International Day of Yoga 2022.**
- Organised Two weeks Yoga workshop on **"Yoga for Health and Wellbeing**" from 23rd May to 5th June 2022 for Faculty, Staff and Family members in connection with 8th International Day of Yoga 2022.

- Organised 21 days Yoga workshop on **"Yoga for Health and Wellbeing"** for all students (UG, PG & Research Scholars) from 1st June to 21st June 2022 in connection with 8th International Day of Yoga 2022.
- Organised **Yoga Competition** for NITW Students, Faculty, Staff and their family members on 17th June 2022 in connection with 8th International Day of Yoga 2022.

Proposed courses to be introduced on Sports in future

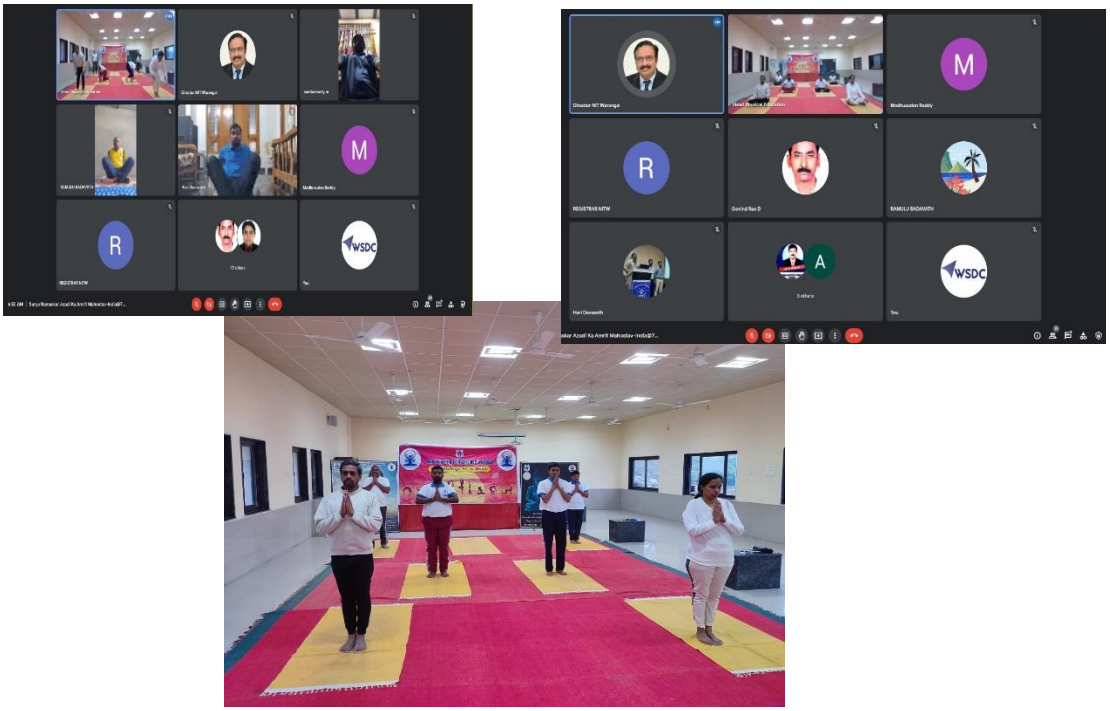
- Sports Engineering.
- Sports Management
- Yoga Education for fitness & Wellness.
- Restoration of PhD in Physical Education and Sports, (Ph.D was existing during the year 1999-2003)
- M.P.Ed- Masters in Physical Education (2 Year course).

Proposals towards the development of Infrastructure Facilities

S. No	Description	Amount Approximate
1.	Multi Purpose Indoor Games Complex.	2.00 Crores
2.	Standard Swimming Pool (50 Mts.).	7.00 Crores
3.	Hockey Field and 2 Handball Courts with Flood Lights.	2.00 Crores
4.	400 Mt 8 lane Synthetic track.	5.00 Crores
5.	Synthetic top surface on the existing Basketball Court with Flood Lights in ladies Hostel.	50 Lakhs
6.	Outer Walking Track around the Stadium.	25 Lakhs
7.	Tera coat surface (3+2=5 Badminton courts inside Biotechnology and Metallurgy buildings).	15 Lakhs
8.	Outdoor Gym facilities near children's park, Outside quarters, near Biotechnology and Metallurgy buildings- (Work Under Process).	10 Lakhs
9.	Establishing Counseling center and Psychological Laboratory.	10 Lakhs

January	1. **Scholars Premier League**, 11th Season (SPL 2021) for Ph.D students organized by the Department of Physical Education from 14-12-2021 to 02-01-2022. 2. Virtual Surya Namaskara was organized by the Department on the occasion of **"Makara Sankranthi",** 14-01-2022, as a part of Azadi Ka Amrit Mahotsav. 3. **Traditional Games of India** for the children's are demonstrated by the kids of Faculty and Staff of the NIT Warangal Campus on the occasion of 73rdRepublic Day Celebration on 26thJan 2022.
February	4. **Faculty Premier League -**2022 (1STFPL- Cricket) was organized by the Department of Physical Education from February 23rdto 30th2022.
March	5. Badminton and Table Tennis teams of NIT Warangal have participated in the **KITS ZONE SPORTS TOURNAMENT (Inter Collegiate)** organised by KITS Huzurabad from 16th to 17th March 2022 and Secured first position in both events. 6. **Faculty Badminton Premier League** (FPL-1) was organized from 25thto 26thMarch 2022. 7. Badminton and Basketball (Men & Women), Volleyball Men and Kabaddi Men teams have participated in the **KITS TROPHY 2022** Inter Collegiate tournament from 23rd to 24th of March 2022 organized by KITS Warangal. Badminton, Basketball (Men & Women) teams secured First position. 8. Physical Fitness Test and Written test was conducted towards **Recruitment of SAS Assistants**on 12thMarch 2022 and following names are selected Mr.N.Khagemba Singh, Mr. GaddeSubhash and Mr.A.Rakesh. 9. Prof. P. Ravikumar, Head, Department of Physical Education, was invited as Resource Person for the Faculty Development Programme **" Body Posture Issues & Remedies for Software Professionals",** Organised by NBKR Institute of Science & Technology, Wakadu, Nellore on 16th March 2022.
April	10. **Intra Badminton Premier League (IBPL-2022)** for the Students, Faculty and Staff was conducted from 1stto 3rdApril 2022. 11. Conducted Interview for selecting **Physical Training Instructor and Yoga Instructors** on 13.04.2022. 12. **EAA** classes for the B.Tech students are commenced on 18th April 2022. 13. Organized **NITW Football Premier League** from 17th to 24th April 2022. 14. **Chess Premier League** for the studentswas organized on 19. April.2022. 15. Yoga postures display through standees installed inside the campus in various places on 28th April 2022 to till 21st June 2022 to promote IDY 2022 in connection with **8thInternational Day of Yoga 2022.**
May	16. Organised Two weeks Yoga workshop on **"Yoga for Health and Wellbeing**"from 23rd May to 5th June 2022 for Faculty, Staff and

	Family members in connection with 8th International Day of Yoga 2022. 17. Dr.Prasanth.P, Sr. SASO, has participated in **1st Pan India Masters Tournament** from 13 to 15th May 2022 held at Bangalore.
June	18. Organised 21 days Yoga workshop on **"Yoga for Health and Wellbeing**" for all students (UG, PG & Research Scholars) from 1st June to 21st June 2022in connection with 8th International Day of Yoga 2022. 19. Organized Bicycle Rally by NYK-Nehru Yuva Kendra on the Occasion of **World Bi-Cycle Day** on 3rdJune 2022 from 1000 Pillar Temple to Badrakali Temple and approximately 150 students and faculty took part in the event. 20. Prof. P. Ravikumar, Head, Department of Physical Education, was invited as Chief Guest to Inaugurate **The National Chess Tournament** for Degree Colleges 2021-22 on 10th June, Organised by PingleGovt College for Women, Warangal. 21. Dr.P. Prasanth, Sr.SAS Officer has attended the All India Inter **NIT Sports Board Meeting** held at National Institute of Technology Uttarkhand from 14thJune to 15thof June 2022. 22. Organised **Yoga Competition** for NITW Students, Faculty, Staff and their family members on 17th June 2022in connection with 8thInternational Day of Yoga 2022. 23. Celebrated **8th International Day of Yoga**on 21st June 2022. 24. Prof. P. Ravikumar, Head, Department of Physical Education given a talk on **"Importance of Physical Fitness"** to the newly joined Non-teaching staffs on 22nd June 2022. 25. Dr.P.Prasanth, Sr.SASO participated in **25 km Bicycle Rally (Cyclothon 2022)** on 26th June 2022 organised by Police Department, Warangal. 26. Dr. D. Hari, SASO, Department of Physical Education participated in Three Days online Seminar on **"Yoga for Mind and Nutrition for the body",** held on 27 to 29th June 2022 organised by Dayanand College, Hisar, Haryana on the occasion of 8th International Day of Yoga 2022.
July	27. Prof. P. Ravikumar, Dr.P.Prasanth, Sr.SASO and Dr.D.Hari, SASO, Department of Physical Education visited Z.P.H.S ChinnaPendiyal, Warangal Rural on 5th July 2022 as part of **Research work.** 28. Prof. P. Ravikumar, Executive member of NAAPES attended the **Annual Executive Board Meeting** on 18th July 2022 held at Manipal University, Manipal, Karnataka.



60th Open National Athletic Meet@NITW (Race Walking)
September 2021



Inauguration of Badminton Court- October 2021



Scholars Premier League- 21st December 2021 to 2nd January 2022



INTRA BADMINTON PREMIER LEAGUE-2022






NITW FOOTBALL LEAGUE- April- 2022




KITS SPORTS EVENT- NIT Warangal team in glance after winning in Basketball and Badminton







INTERNATIONAL DAY OF YOGA EVENTS FROM MAY TO 21ST JUNE 2022





YOGA WORKSHOP FOR FACULTY & STUDENTS









YOGA WORKSHOP FOR STUDENTS & RESEARCH SCHOLARS







YOGA COMPETITION FOR STUDENTS, FACULTY AND STAFF







Closing ceremony of International Day of Yoga- 2022







International relations and Alumni Activities

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. Subrahmanyam 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.

Budget for 10 Projects is Rs. 5,21,65,195/- (Rupees Five Crore Twenty One lakhs Sixty Five Thousand One hundred and Ninety Five Only)

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. 76 courses were completed at the institute and these courses were highly commended and 08 courses were approved during 2021 – 2022 and planning to be conducted during 2023.

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 completed during 2021 – 2022.

Alumni Activities

- 1982-86 Batch Alumni has donated Advanced Life Support Ambulance to the institute on 13th March, 2022.
- Mr N. VENU, 1988 B,Tech EEE Alumni handed over 8 seater Electric Vehicle(EV) to the Institute on 25.11.2022
- One crore Donation was made by Sudhakar Rao 1982 Batch for Design thinking and tinkering labs.
- 1995 batch – Initiated Alumni Assistance Fund (donated 32,25,000/-)
- 1997 batch - Initiated Alumni Assistance Fund (donated 75,00,000/-)

- 1996 batch - NITW INNOVATION IGNITION FUND targeting the creation of a Rs. 30 lakh corpus by end of 2023 and is targeting to create a corpus of over Rs. 5 crores in this fund by end of 2025
- 1970 Batch - Golden Jubilee Reunion was held during 12th – 14th August, 2022
- 2002 Civil FDH Batch – 20 Years Reunion was held on 14th August, 2022
- 1995 Batch - Silver Jubilee Reunion was held during 12th – 14th August, 2022
- 1996 Batch - Silver Jubilee Reunion was held during 22nd – 24th July, 2022
- 1997 Batch - Silver Jubilee Reunion was held during 15th – 16th December, 2022
- 1980 Batch - Reunion was held during – 17th December, 2022
- 1972 Batch Golden Jubilee Reunions was held during 09-11 December, 2022
- 1973 Batch Golden Jubilee Reunions to be held during 22-24 December, 2022
- NITWAA Warangal Chapters Family Get Together was held on 12th November, 2022
- NITWAA Hyderabad Chapter Family Get Together was held on 20th November, 2022
- Distinguished Alumni Award Ceremony 2021 & 2022 held on 10th October, 2022

<table>
<tr><td></td><td></td></tr>
<tr><td>Awardees of DAA - 2021</td><td>Awardees of DAA - 2022</td></tr>
<tr><td></td><td></td></tr>
<tr><td>Alumnus Lifetime Achievement Awardee – 2021</td><td>Alumnus Lifetime Achievement Awardee – 2022</td></tr>
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AMIT SRIVASTAVA MEMORIAL ALUMNI NETWORKING (ASMAN) AWARDS
For the years 2018 – 2022 held on 09th October, 2022



NITW Faculty Awards & Certificate of Appreciation held on 09th October, 2022



Donation of Advanced Life Support Ambulance by 1982-86 Batch Alumni



Mr N. VENU handed over of 8 seater Electric Vehicle(EV) to the Institute on



25.11.2022

REUNIONS



1996 Batch - Silver Jubilee Reunion



1995 Batch - Silver Jubilee Reunion



2002 Civil FDH Batch



1970 Batch - Silver Jubilee Reunion

CENTRAL RESEARCH INSTRUMENTATION FACILITY



About CRIF:

Central Research Instrumentation Facility (CRIF) is an integrated facility to provide high-end analytical services to academic and industrial research. The CRIF works with a motto to bring out the research output of scholars matching international standards. The central facility caters to the department requirements under a single umbrella by fostering interdisciplinary research. Students from different branches of science and engineering from various institutions come here for research and experimentation, creating a vibrant cross-disciplinary atmosphere. CRIF is a G+1 building with a floor space of around 28000 Sqft. CRIF has its web presence on the institutional website and can be accessed at https://www.nitw.ac.in/path/?dept=/nitwcentres

CRIF TEAM



Dr. T Krishna Sai,
Principal Scientific Officer



Shri V Sudhakar,
Technical Officer



Shri Harish Madupu,
Technical Officer



Shri D Ravikumar,
Technical Officer

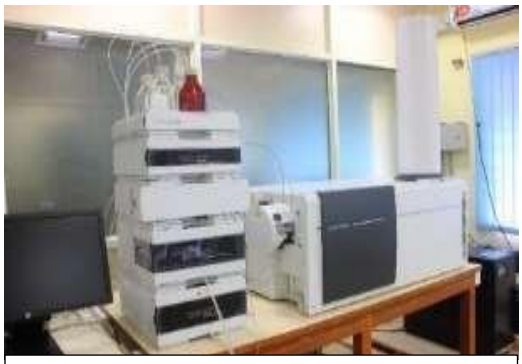


Smt. GSR Sanjeevini,
Technical Officer

Activities at CRIF

- STUTI-21, a DST project consisting of 12 awareness programs for science students, was conducted during Science week in Feb 2022.
- Under STUTI-21, 22 training programs for faculty, research scholars, and postdoctoral fellows from various institutions across the country are being organized by CRIF. 14 programs at NIT Warangal, JNTU Hyderabad, Osmania University, VNIT Nagpur, NIT Jalandhar, Guru Nanak Dev University Amritsar, Barathidasan University-Trichy, Pt. Ravishankar Shukla University Raipur, Sri Venkateswara University Tirupathi, Defence Institute of Advanced Technology Pune, and Banaras Hindu Univesity Varanasi are conducted in 2022 calendar year. 8 programs at NIT Warangal, VIT Vellore, Sathyabama Institute of Science and Technology Chennai, Central University of Tamil Nadu, NIT Trichy, NIT Jalandhar, Osmania University and Mangalore University are planned to be conducted in Jan and Feb 2023.
- I-Stem has sanctioned a one-month skill development program to train the unemployed youth in and around Warangal under Skill India- Kaushal Bharath Kushal Bharath initiative by Govt. of India. Under this 10 participants are trained for one month from 30 Nov- 30 Dec 2022 on sophisticated analytical equipment namely LCHRMS, ICP-OES, XRD, SEM, UV-Vis-NIR Spectrophotometer and X-band ESR, and grades were allotted based on their theory and hands-on performance. Two of them are selected as i-stem interns for 3 months with a stipend from i-stem directly.
- A Tools Training Centre is established using written-off equipment for training the students by dismantling and identifying the internal modules of the high-end equipment for a better understanding of the working of state-of-the-art instruments
- As part of the induction program for newly recruited technical staff, a two-day training program was conducted in June 2022. This included safety measures to be taken during laboratory sessions, lab safety precautions, regular record maintenance, calibration of measuring equipment, and on sophisticated analytical equipment housed at CRIF.

Facilities at the centre



Liquid Chromatography-High Resolution Mass Spectrometry
Make: Agilent Technologies
Model: QTOF 6530



X Band ESR Spectroscopy
Make: JEOL RESONANCE Inc., Japan
Model: JES-FA100



NMR Spectroscopy
Make: Bruker
Model: Avance III HD 400 MHz



Inductively Coupled Plasma-Optical Emission spectroscopy
Make: Agilent Technologies
Model: 700 series



UV-Vis NIR Spectrophotometer
Make: Agilent Technologies
Model: Carry 5000



Flourescence Workstation
Make: HORIBA INSTRUMENTS INCORPORATED, USA
Model: FL-1000



Two Port Vector Network Analyzer (VNA)
Make: Anritsu
Model: MS46122B



Anechoic chamber
Make: Entuple Technologies.
Size of Chamber: 3 x 3 x 2.4 m (LWH)



CHNS Analyser
Make: Elementar, Germany
Model: UNICUBE+



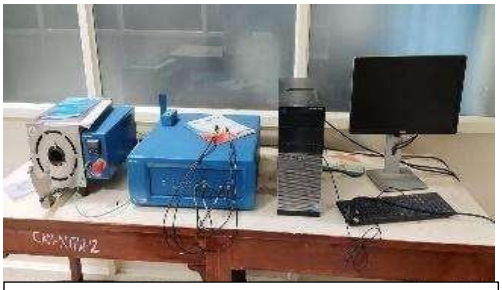
PCB Prototype Machine
Make: Enthutech
Model: ETS-PCBMATE-1500W



Universal Testing Machine (UTM)
Make: JINAN TESTING EQUIPMENT IE CORPORATION, China
Model: WDW-100S



TGDTA
Make: Netzsch
Model: Regulars STA 2500



Impedance Analyser
Make: Biologic
Model: MTZ35



Trinocular Polarizing Microscope
Make: Olympus
Model: BX53



Vacuum Arc Melting
Make: VEC Solutions



Differential Scanning Calorimeter
Make: PerkinElmer
Model: DSC8000



Scanning Electron Microscope (SEM)
Make: TESCAN
Model: VEGA3 LMU



X- Ray Diffraction (XRD)
Make: Panalytical
Model: X-pert powder



Electrochemical Workstation
Make: ZAHNER
Model: IM6e

Spectrum Analyzer
Make: Anritsu
Model: MS2720T



Liquid Nitrogen Plant



Photo Gallery and News Coverage







NITW research output grows

HANS NEWS SERVICE
WARANGAL

THE research output of NIT Warangal has shown significant improvement in the recent years.

As per the Scopus database, the number of publications by the faculty and students of NIT Warangal in the current calendar year 2021 has crossed 1,000. This is a remarkable achievement. In 2017, the total number of publications was 540. In the last four years, the output has almost doubled. With the induction of new faculty, the research culture has seen renewed impetus. In the last two recruitments in 2018 and 2019, nearly 150 new faculty members were recruited. All the faculty members were given initial research funding of Rs 3 lakh each to establish their basic research facility. Also, funding was given generously to all the departments to purchase and upgrade the research equipment.

NITW Director Prof. NV Ramana Rao and Registrar S Goverdhan Rao congratulated the entire NITW faculty and students. In addition to completing the academic syllabus and laboratory classes online, the institute has supported and motivated the faculty and students to enhance their research efforts. The institute has also established new Centers of Excellence and a Centralized Research Instrumentation Facility to support multidisciplinary research not only among different departments but also in collaboration with the industry. The institute is also spending huge resources on e-journals, e-books, which can be accessed from any place.

Prof Ramana Rao informed that the curriculum of all the courses has been thoroughly revised in tune with the National Education Policy, 2020 and the intake of PhD scholars has been increased from 150 to 250 from the current academic year. Further new integrated courses in sciences have been introduced.



తక్కువ ఖర్చుతో టచ్‌లెస్ శానిటైజర్ మెషిన్

అభివృద్ధి చేసిన 'నిట్' ఉద్యోగి

శంభునిపేట (నిట్‌క్యాంపస్), ఏప్రిల్ 8 : వరంగల్ జాతీయ సాంకేతిక సంస్థ (నిట్) ఈసీఈ విభాగంలో టెక్నికల్ అసిస్టెంట్‌గా పనిచేస్తున్న వి.సుధాకర్ తక్కువ ఖర్చుతో టచ్‌లెస్ శానిటైజర్ మెషిన్‌ను అభివృద్ధి చేశారు. అల్ట్రాసోనిక్ సెన్సార్ ఫ్రెక్రో కంట్రోలర్, ఎల్‌ఈడీ సోలినోయిడ్ వియరీ ఆధారంగా ఈ మెషిన్‌ను రూపొందించారు. ప్రస్తుత మార్కెట్‌లో టచ్‌లెస్ శానిటైజర్ మెషిన్‌లు రూ. 2వేల పైనే ఉందన్నారు. అధునాతన సాంకేతికతతో రూ.800లకే లభ్యమయ్యే విధంగా ఈ మెషిన్‌ను రూపొందించినట్లు సుధాకర్ తెలిపారు. ఒక లీటర్ నిలువ చేయగల ఈ మెషిన్‌ను కార్యాలయాలతో పాటు ఇళ్లలోనూ సులువుగా వాడుకోవచ్చన్నారు. ఈ సంద



అభివృద్ధి చేసిన టచ్‌లెస్ శానిటైజర్ మెషిన్

ర్భంగా సుధాకర్‌ను గురువారం నిట్ డైరెక్టర్ ప్రొఫెసర్ ఎన్ వీ రమణారావు, రిజిస్ట్రార్ గోవర్ధన్‌లు అభినందించారు.

ఆంధ్రజ్యోతి Fri, 09 April 2021
https://epaper.andhrajyothy.com/c/59667703

తక్కువ ఖర్చుతో 'టచ్ లెస్' శానిటైజర్ పరికరం

కాజీపేట అర్బన్ : కరోనా నివారణ జాగ్రత్తల్లో భాగంగా చేతులతో తాకకుండానే శానిటైజర్ వేసుకునే పరికరాన్ని నిట్ ఉద్యోగి తక్కువ ఖర్చుతో రూపొందించారు. కాజీపేట నిట్‌లోని ఈసీఈ విభాగం టెక్నికల్ అసిస్టెంట్ వి.సుధాకర్ ఈ పరికరాన్ని రూపొందించగా, డైరెక్టర్ ఎస్వీ.రమణారావు గురువారం ఆవిష్కరించి మాట్లాడారు. ఈ పరికరం మార్కెట్‌లో రూ.2వేలకు అమ్ముతుండగా, తాను కేవలం రూ.800 తో సిద్ధం చేశానని సుధాకర్ తెలిపారు. రిజిస్ట్రార్ గోవర్ధన్ రావు తదితరులు పాల్గొన్నారు.



పరికరం వద్ద డైరెక్టర్, తదితరులు

సాక్షి Fri, 09 April 2021
https://epaper.sakshi.com/c/59667567

NIT-Warangal crossed a milestone in research output

DC CORRESPONDENT
HANAMKONDA, DEC. 27

The National Institute of Warangal has crossed one more milestone in research output with the number of publications by the faculty and students crossing 1,000 in the current calendar year of 2021, informed the Director of the NIT, Prof N.V. Ramana Rao on Monday.

In a statement released here, Prof N.V. Ramana Rao stated that this is the remarkable achievement made by NIT, Warangal. Compared to the previous best of 540 publications in 2017, the output of publications was doubled after four years with the induction of new faculty.

In addition to completing the academic syllabus and laboratory classes online, the institute has supported and motivated the faculty and students to enhance their research efforts.

The institute also established new centers of Excellence and a centralised Research Instrumentation facility to support multidisciplinary research not only among different departments but also collaborating them with several industries along with investing in huge resources on e-journals and e-books so that the faculty and students can access easily from any place.

All the faculty were given initial research funding of Rs 3 lakh each to establish their basic research facilities. Funding was also given generously to all the departments to purchase and upgrade the research equipment.

The curriculum of all the courses has been thoroughly revised in tune with the National Education Policy, 2020, and the intake of PhD scholars has been increased from 150 to 250 from the Current academic year. With the improved vigor and enthusiasm the NIT-Warangal will achieve further milestones to better its ranking, he hoped and congratulated the faculty and students.

NIT-W SIGNS MoU WITH POSOCO OF BANGALORE

DC CORRESPONDENT
WARANGAL, DEC.10

The National Institute of Technology (NIT) Warangal and Southern Region Load Dispatch Center, POSOCO (Power System Operation Corporation Limited) Bangalore signed a Memorandum of Understanding (MoU) to cooperate and collaborate with each other for academic and research purposes in Hanamkonda of Warangal district on Friday.

The director of the NITW, Prof. N.V. Ramana Rao and the executive director of the POSOCO V. Suresh signed MoU papers online.

Speaking on the occasion, Prof. Ramana Rao said that the MoU which will be in force for five years would help both the institutes to engage in collaborative research projects on the areas of power grid system management.

ఈనాడు
epaper.eenadu.net



వరంగల్ జాతీయ సాంకేతిక విద్యా సంస్థలో పరిశోధనల సంఖ్య పట్టేలేదు పెరుగుతోంది. వివిధ విభాగాలకు చెందిన ఆచార్యులు, విద్యార్థులు కలిసి 2021లో సమర్పించిన పరిశోధన పత్రాల సంఖ్య ఏకంగా వెయ్యి దాటింది. ప్రఖ్యాత అంతర్జాతీయ జర్నల్ సమాహారమైన 'స్కోపస్'లో ప్రచురితమైన వ్యాసాల సంఖ్యే 1013గా ఉంది. -ఈనాడు, వరంగల్

పరిశోధనలు వెయ్యింతలు..

ఈ ఏడాది 'నిట్' సాధించిన ఘనత

ఈ ఏడాది అంతర్జాతీయ జర్నల్లలో ప్రచురితమైన పరిశోధన పత్రాల సంఖ్య వెయ్యి దాటడం వెనుక కేంద్రం దండిగా ఇస్తున్న నిధులతోపాటు ఆధ్యాపకుల కృషి ఎంతో ఉంది. కరోనా విజృంభించాక ఆన్‌లైన్ తరగతులను సమర్థంగా నిర్వహించిన ఆచార్యులు.. ప్రయోగాలను వర్చువల్‌గా చేసేలా విద్యార్థులను ప్రోత్సహించారు. మెకానికల్, సివిల్, కెమికల్, బయోటెక్నాలజీ, ఎలక్ట్రికల్, బీజీ తదితర విభాగాలకు చెందిన పీహెచ్‌డీ, ఎంటెక్ విద్యార్థులు పరిశోధనలు కొనసాగిస్తున్నారు.

● ఒక్కో అధ్యాపకుడికి పరిశోధనల కోసం కనీసం రూ.3 లక్షలు అందజేస్తుండటంతో వారు సొంతంగా ప్రయోగశాలను ఏర్పాటు చేశారు. రోబోటిక్స్ నుంచి మొదలుకొంటే సౌర విద్యుత్తు, మురుగు జలాల శుద్ధి, స్మార్ట్ రహదారులు, కృత్రిమ మేధ, జేటా ఎనలిటిక్స్, భవిష్యత్తులో రవాణా రంగాన్ని శాసించబోయే ఎలక్ట్రిక్ వాహనాల వరకు వందలాది అంశాలపై పరిశోధన పత్రాలు సమర్పించి, ఎన్‌ఐటీ ర్యాంకింగ్‌లో ఎగబాకేందుకు వరంగల్ నిట్ ఆచుగులు వేస్తోంది.

పరిశోధన పత్రాల సంఖ్య ఇలా పెరుగుతోంది



● ఎన్‌ఐటీ ప్రాంతీయ ఇంజినీరింగ్ కళాశాలగా ఉన్నప్పుడు 2000వ సంవత్సరంలో వెలువడిన పరిశోధన పత్రాల సంఖ్య: 16

● ఇప్పటి వరకు అంతర్జాతీయ జర్నళ్లలో ప్రచురితమైనవి: 6836

ప్రత్యేక దృష్టి సారిస్తున్నాం
- ఆచార్య ఎన్.వి.రమణారావు, నిట్ డైరెక్టర్



ప్రతి అధ్యాపకుడికి సీడ్ పండింగ్ ఇవ్వడం మంచి ఫలితాలు ఇస్తోంది. మేటి పరిశోధనలు చేసి అనేక పండింగ్ ఏజెన్సీలకు దరఖాస్తు చేసుకోవడంతో నిధులు వస్తున్నాయి. ఒకే విద్యార్థికి ఈసారి రూ. 45 లక్షల ప్రాజెక్టు దక్కింది. వచ్చే ఏడాది పరిశోధనలపై మరింత దృష్టి సారిస్తాం.

సమయం వెచ్చించి.. ఒప్పించి

నిట్ సమర్పించిన పరిశోధన పత్రాలన్నీ అంతర్జాతీయ జర్నళ్లలో ప్రచురితమవనవే. కొన్ని సంస్థలు డబ్బులు వెచ్చిస్తేనే తమ జర్నళ్లలో వేస్తాయి. నిట్‌ది అంతర్జాతీయ నాణ్యతా ప్రమాణాలు పాటించి ఎంపిక చేసే మ్యాగజైన్లలోనే ఉన్నాయి. కొన్నిసార్లు టికి మూడు నెలలకుగాపై సమయం వెచ్చించి, ప్రచురణకర్తలు అడిగే సందేహాలన్నీ నివృత్తి చేశారు నిట్ ఆచార్యులు, విద్యార్థులు.

● విద్యా సంస్థలో పరిశోధనలకు ఊతమిచ్చే వాతావరణాన్ని కల్పిస్తున్నారు. గత కొన్నేళ్లుగా రూ. కోట్ల విలువైన కొత్త ప్రయోగశాలలు వచ్చాయి. కేంద్ర శాస్త్ర సాంకేతిక విభాగం (డీఎస్టీ) నిట్‌కు రూ. కోట్ల విలువైన ప్రాజెక్టులను ఇస్తోంది. ఈ ఏడాది నుమారు రూ.10 కోట్ల విలువైన ప్రాజెక్టులు పరిశోధనలకు ధ్యాయి.

Date : 30/12/2021 EditionName : TELANGANA(HANUMAKONDA) PageNo : 02

Over 1,000 NIT Warangal students land lucrative jobs

P LAXMA REDDY
Warangal

A total of 1,016 students from the National Institute of Technology, Warangal (NITW) landed jobs in different companies including multi-national firms this academic year through campus placements. While 839 students bagged jobs in the last academic year, this year the number crossed the 1,000 mark.

Due to the pandemic, the campus drives were conducted virtually. Nearly 250 companies visited the campus this year to hire talented students. In all, over 630 B.Tech and over 370 postgraduate students got placed in different companies. The top job offers were bagged by Gaurav Singh and Priyansh Maheshwari of B.Tech (CSE) final year,

Two students get placed with DE Shaw for Rs 62.5L each per annum. In all, over 630 B.Tech and 370 PG students got placed

who got placed with DE Shaw which offered them a salary package of Rs 62.5 lakh per annum each. Debrup Mondal was also offered Rs 57.5 lakh per annum by DE Shaw, while 15 students were placed in Microsoft which offered a salary package of Rs 45 lakh per year. While 50 students secured jobs in Oracle with a package ranging from Rs 27 lakh to Rs 32 lakh per year, 24 students got jobs in Qualcomm with a package of Rs 25 lakh to Rs 32 lakh per annum. "The number of students who got packages with more than Rs 20 lakh per annum is 220, and the average package is Rs 14.5 lakh per annum," said NITW Director N V Ramana Rao. A total of 630 out of 700 eligible B.Tech students got placed, while 386 out of 677 eligible P.G students (Includes M.Tech, MBA, MCA, M.Sc) got placed, and more than 450 pre-final year students received internship offers from different companies. "The stipend varies from Rs 20,000 to Rs 1.60 lakh," said Centre for Career Planning and Development, Head Dr Kiran Kumar K. Some top recruiters included DE SHAW, Microsoft, Meshoo, Arcesium, Oracle, Service now, Uber, Qualcomm, GoldmanSachs, Amazon, Adobe, among others.

గూగుల్ క్లౌడ్ కీలక పదవిలో భానుమూర్తి బల్లాపురం



న్యూఢిల్లీ: గూగుల్ క్లౌడ్ జపాన్, ఆసియా పసిఫిక్ ప్రాంతాల కస్టమర్ ఎక్స్‌పీరియెన్స్ విభాగ వైస్ ప్రెసిడెంట్‌గా భానుమూర్తి బల్లాపురం నియమితులయ్యారు. విప్రో మాజీ చీఫ్ ఆపరేటింగ్ ఆఫీసర్ (సీఓఓ) అయిన భానుమూర్తి.. అమెరికాలోని గూగుల్ కస్టమర్ ఎక్స్‌పీరియెన్స్ విభాగ వైస్ ప్రెసిడెంట్ జాన్ జెస్టెర్‌కు రిపోర్ట్ చేయనున్నారు. ఎన్‌ఐటీ వరంగల్ నుంచి బీటెక్ (మెకానికల్), ఐఐఎం అహ్మదాబాద్ నుంచి ఎంబీఏ పూర్తి చేసిన భానుమూర్తికి ఐటీ సేవల రంగంలో 25 ఏళ్లకు పైగా అనుభవం ఉంది.

రీసెర్చ్ అవుట్‌పుట్‌లో వరంగల్ ఎన్‌ఐటీ అరుదైన ఘనత



గ్లోబల్ వరంగల్, సిటీబ్యూరో: ఘన చరిత్ర కలిగిన వరంగల్ ఎన్‌ఐటీ రీసెర్చ్ అవుట్‌పుట్‌లో అరుదైన ఘనత సాధించింది. జర్నల్స్ హవర్డ్ సంవత్సరాలలో గణనీయమైన అభివృద్ధిని కనబరిచింది. స్కోపస్ డేటాబేస్ ప్రకారం, ప్రస్తుత క్యాలెండర్ ఇయర్ 2021లో ఎన్‌ఐటీ వరంగల్ అధ్యాపకులు, విద్యార్థులు ప్రచురించిన ప్రచురణల(పబ్లికేషన్) సంఖ్య 1000 అధగమించడం జరిగింది. ప్రచురణలలో అరుదైన విజయం సాధించడం జరిగింది. 2017లో మొత్తం ప్రచురణల సంఖ్య 540 ఉండగా గత 4 సంవత్సరాలలో అవుట్‌పుట్ దాదాపు రెండింతలు పెరిగింది. పరిశోధన సంస్కృతికి కొత్త అధ్యాపకుల ప్రవేశంతో కొత్త ఊపు వచ్చింది. 2018 నుంచి 2019లో గత రెండు దఫాలుగా దాదాపు 150 మంది కొత్త ఫ్యాకల్టీలను నియమించడం జరిగింది. కొత్త అధ్యాపకుల ప్రవేశంతో పరిశోధన సంస్కృతికి కొత్తఊపు వచ్చింది. అధ్యాపకులందరికీ ప్రారంభ పరిశోధన నిధులు రూ.3 లక్షలు మంజూరు చేయడంతో పాటు ప్రతి విభాగంలో ప్రాథమిక పరిశోధన సౌకర్యాన్ని కల్పించడం జరిగింది. ఈ సందర్భంగా నిట్ డైరెక్టర్ ప్రొ.ఎన్వీ రమణారావు, రిజిస్ట్రార్ ఎం.గోవర్ధనరావు, డీన్లు, సిబ్బందులు, పబ్లికేషన్ రికార్డు స్థాయిలో సాధించడానికి దోహదం చేసిన ఎన్‌ఐటీ వరంగల్ అధ్యాపకులు, విద్యార్థులను అభినందించారు.ఈ సందర్భంగా నిట్ డైరెక్టర్ ప్రొఫెసర్ ఎన్వీ రమణారావు మాట్లాడుతూ... జాతీయ విద్యా విధానం 2020కి అనుగుణంగా అన్ని కోర్సుల సీట్ల్యాంలను పూర్తిగా సవరించామన్నారు. ప్రస్తుత విద్యా సంవత్సరం నుంచి పీహెచ్‌డీ స్కాలర్‌లను తీసుకోవడం 150 నుంచి 250కి పెంచడం జరిగిందని తెలిపారు. భౌతికశాస్త్రం, రసాయన శాస్త్రం విభాగాలలో మరిన్ని కొత్త ఇండిగేటెడ్ కోర్సులు ప్రవేశపెట్టడం జరిగిందన్నారు. మెరుగైన ల్యాబ్, ఉష్ణాంతో ఇన్ఫ్రాస్ట్రక్చర్ మరిన్ని మౌలికవసతులు సాధించి వరంగల్ నిట్ ర్యాంకింగ్‌ను మరింత మెరుగుపరుస్తుందని ఆయన ఆశాభావం వ్యక్తం చేశారు.

Telangana boy secures top rank in GATE '22

EXPRESS NEWS SERVICE
@ Hyderabad

A BTech Chemical Engineering student from National Institute of Technology (NIT), Warangal, T Mani Sandeep Reddy has secured all India first rank in Graduate Aptitude Test in Engineering (GATE) 2022. The Indian Institute of Technology (IIT), Kharagpur declared the GATE 2022 results on Thursday.


Sandeep Reddy

Speaking to *Express*, a delighted Sandeep Reddy said: "I am feeling very happy that I achieved top rank in the national level exam. I prepared myself for GATE with the help from my professors who guided me in the right way."

He also revealed that during campus selection he got offers from GAIL and other oil and gas companies. "I now have to take a call on whether to go in for masters or accept a job offer to gain experience," he said.

In addition to the GATE 2022 results, IIT Kharagpur also issued stream-specific qualifying and cut-off marks of students who took the examination. The cut-off marks for Chemical, Biotechnology, Computer Science, ECE, Electronics and Communication Engineering Streams are now available at gate.iitkgp.ac.in

THE HANS INDIA

12th edition of CURA held at NIT Warangal



HANS NEWS SERVICE
WARANGAL



THE 12th edition of CURA, the national level management meet of School of Management, National Institute of Technology, Warangal inaugurated on Friday, by the chief guest Prof. NV Ramana Rao, Director NITW.

Guest of honours Prof. P. Ravi Kumar, Dean students' affairs, N. Jayaram Vice president, TCS and Prof. M. Ravinder Reddy, Head of the Department, SOM.

Prof. N.V. Ramana Rao, Director, addressed about the event, followed by Prof. P. Ravi Kumar and Mr. N. Jayaram. The head of SOM described the philosophy as well as the history of CURA during his address and Dr. Rahul Thengada took the event further with his perspective about how CURA has evolved with time.

CURA consists of more than 10 management competitions, workshops and plethora of keynote speakers who share their experience with students from all walks of life and has been an integral part of NITW fests from the past 12 years.

The event kicked off at 9 am hold in a virtual mode in line with the Covid 19 guidelines. The inaugural event lasted till 9:30 am and was celebrated with gaiety. Over 250 participants were present from different corners of the country.

26/03/2022 WARANGAL Pg 02

నిట్‌లో 1016 మందికి ప్లేస్ మెంట్స్

కాజీపేట, వెలుగు: వరంగల్ నిట్ లో 1016 మంది స్టూడెంట్లకు ప్ లభించినట్లు డైరెక్టర్ ఎన్వీ రమణారావు తెలిపారు. గురువారం నిట్‌లోని అంబేద్కర్ ఆడిటోరియంలో నిర్వహించిన అభినందన సభలో ఆయన మాట్లాడారు. నిట్‌కు చెందిన 630 మంది బీటెక్, 386 మంది పీజీ స్టూడెంట్లకు అంతర్జాతీయ కంపెనీల్లో ఉద్యోగాలు వచ్చాయన్నారు. గౌరవ్ సింగ్, ప్రియాన్ష్ మహేశ్వర్ అనే స్టూడెంట్లకు అత్యధికంగా ఏడాదికి రూ.62.5లక్షల వేతనానికి ఎంపికయ్యారన్నారు.

కృత్రిమ మేధ.. క్యాంపస్‌కు భద్రత



కెమెరా ముందుకు రాగానే ముఖాలు, పేర్లతో సహా తెరపై వివరాలు ఇలా కనిపిస్తాయి

ఈనాడు, వరంగల్

క్యాంపస్‌లో విద్యార్థుల భద్రతకు కళాశాలలు ఎంతో ప్రాధాన్యం ఇస్తుంటాయి. వారు అర్ధరాత్రి బయటకు వెళ్లినా, అపరిచితులు లోనికి ప్రవేశించినా గేటు వద్దే సెక్యూరిటీ సిబ్బంది కారణాలు తెలుసుకొని వివరాలు నమోదు చేస్తుంటారు. అలాంటిది మానవ ప్రమేయం లేకుండా క్యాంపస్‌లోకి ఎవరు, ఎప్పుడు వచ్చారనే వివరాలు పక్కాగా తెలుసుకునేందుకు వరంగల్ ఎన్ఐటీ సరికొత్త ప్రయోగానికి శ్రీకారం చుట్టింది. కృత్రిమ మేధ (ఆర్టిఫిషియల్ ఇంటలిజెన్స్) సాంకేతికతను ఉపయోగించి 'ఫేస్ డిటెక్షన్' చేసేందుకు ఎలక్ట్రానిక్స్ అండ్ కమ్యూనికేషన్స్ ఇంజినీరింగ్ ఆచార్యుడు రవికుమార్ మార్గదర్శనంలో ఈసీఈ మూడో సంవత్సరం చదువుతున్న ముగ్గురు విద్యార్థులు సరికొత్త ప్రయోగం చేస్తున్నారు.

100 మందిపై ప్రయోగం..

కృత్రిమ మేధ ద్వారా ముఖాలను గుర్తించేందుకు క్యాంపస్‌లో వందమంది విద్యార్థుల వివరాలు తీసుకున్నారు. తొలుత వారి ఫొటోలు, పేర్లను సంగణకంలో నమోదు చేశారు. ప్రధాన ద్వారం ముందు ఏర్పాటుచేసే


ప్రాజెక్టు చేపడుతున్న ఈసీఈ విద్యార్థులు

కెమెరా ముందుకు రాగానే తెరపై వీరి పేర్లతో సహా వస్తుంది. అలా ఆ విద్యార్థి ఎన్ని సార్లు బయటకెళ్లొచ్చారు, ఏ సమయంలో వెళ్లారనేది తెలిసిపోతుంది. విద్యార్థులు నియమిత సమయాల్లో కాకుండా తరగతి వేళలు, అర్ధరాత్రి బయటకెళితే వారి మొబైల్‌కు అలర్ట్ వస్తుంది. మాస్కు ధరించిన వారిని కూడా కృత్రిమ మేధ ద్వారా గుర్తించే విధంగా సాఫ్ట్‌వేర్‌ను మలిచారు. రూ.400 కెమెరా దానికి ఒక తెర అనుసంధానించి ఈ విధానంలో ముఖాలను గుర్తించవచ్చని రవికుమార్ తెలిపారు. కరోనా తర్వాత చాలా కార్యాలయాల్లో వేళ్ల ద్వారా పనిచేసే బయోమెట్రిక్ హాజరు యంత్రాలను వినియోగించడం లేదు కాబట్టి 'ఏఐ' ద్వారా ముఖాలను గుర్తించి హాజరు కోసం కూడా వాడుకోవచ్చు. ఈ విధానంలో కెమెరా ముందుకు ఒకేసారి ముగ్గురు వచ్చినా పసిగడుతుంది. ఈ ప్రాజెక్టులో భాగంగా అన్ని ప్రాంతాల వారిని గుర్తించేందుకు వివిధ దేశాలకు చెందిన 13 వేల మంది డేటాను తీసుకున్నట్లు విద్యార్థులు వివరించారు. క్యాంపస్‌లోకి రోజుకు ఎంత మంది కొత్తవాళ్లు వచ్చారన్న డేటా కూడా వారి ముఖాలతో సహా తెలుసుకోవచ్చు. క్యాంపస్ భద్రతకు ఇది ఎంతో ఉపయుక్తం కానుంది.

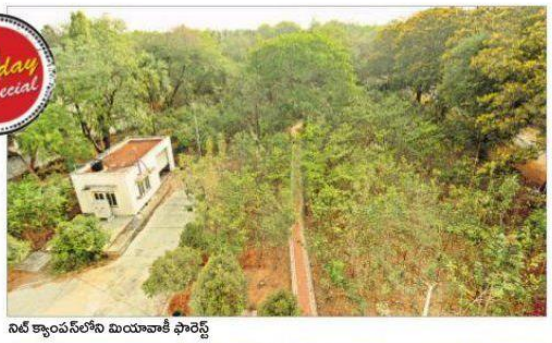
గ్రీన్ క్యాంపస్!

వావ్ మియావాకీ..
నిట్‌లో మినీ ఫారెస్ట్

- 2019లో శ్రీకారం.. 2 ఎకరాల్లో 4 వేల మొక్కలు
- హరితహారంలో రూ. 2 లక్షల ప్రోత్సాహకం
- ఆహ్లాదకర వాతావరణం ఉందంటున్న విద్యార్థులు

బహుళ అంతస్తులు. మిద్దెలు, మేడలు. గజం జాగా ఉన్నా.. సిమెంట్ పూత పూసేస్తున్నాం. అద్దుగా ఉన్నాయని చెట్లను తెగనరుకుతున్నాం. ఈ తరుణంలో గ్రేటర్‌కు ఊపిరిలూదేందుకు నిట్‌లో చిట్టడవి రూపుదిద్దుకుంది. 'మియావాకీ ఫారెస్ట్' పేరుతో నిట్ క్యాంపస్‌లో మూడేళ్లుగా ఆకుపచ్చ యజ్ఞం జరుగుతోంది. తక్కువ స్థలంలో వేలాది మొక్కలకు ప్రాణ ప్రతిష్ఠ జరుగుతోంది. ఆ గ్రీన్ క్యాంపస్ ముచ్చట్లు ఈ వారం 'సాక్షి' సండే స్పెషల్. - కాజీపేట అర్బన్

Sunday Special



నిట్ క్యాంపస్‌లోని మియావాకీ ఫారెస్ట్

సాంకేతిక విద్యలో, క్యాంపస్ సెలక్షన్స్‌లో నేషనల్ ఇనిస్టిట్యూట్ ఆఫ్ టెక్నాలజీ (నిట్)ది ప్రపంచంలోనే ప్రత్యేక స్థానం. ఓ వైపు నరికొత్త పరిశోధనలు, ఆవిష్కరణలు చేస్తూనే.. అంతరించిపోతున్న అడవులను పెంపొందించేందుకు నిట్‌లో మియావాకీ ఫారెస్ట్ పేరుతో నూతన ఒరవడికి శ్రీకారం చుట్టారు. 2019 ఆగస్టు 15న స్వాతంత్ర్య దినోత్సవాన్ని పురస్కరించుకుని మియావాకీ ఫారెస్ట్‌ను ప్రారంభించారు. మియావాకీ ఫారెస్ట్‌లో తక్కువ స్థలంలో ఎక్కువ మొక్కల నాటడం ప్రధాన ఉద్దేశం. అప్పటినుంచి ప్రతీ శనివారం నిట్ వరంగల్ క్యాంపస్‌లో రెండు ఎకరాల్లో అటవీశాఖ సౌజన్యంతో నిట్ యాజమాన్యం, విద్యార్థులు మొక్కలు నాటడం ప్రారంభించారు. ఇప్పటి వరకు 4వేల మొక్కలు నాటి చిట్టడవిని రూపొందించారు.

ఎవరీ మియావాకీ!

జపాన్‌కు చెందిన వృక్ష శాస్త్రజ్ఞుడు అకిరా మియావాకీ. ఆయన తక్కువ స్థలంలో ఎక్కువ మొక్కలను నాటి అడవిని సృష్టించి నూతన ఒరవడికి నాంది పలికారు. అకిరా మియావాకీ స్ఫూర్తితో.. నిట్ క్యాంపస్‌లోని అంబేద్కర్ లర్నింగ్ సెంటర్ ఆడిటోరియం ఆవరణలో మొక్కలు నాటుతూ వస్తున్నారు. ప్రస్తుతం మినీ ఫారెస్ట్‌గా ఇది అవతరించింది.

ఆక్సిజన్ అందించే మొక్కలే ఎక్కువ!

నిట్ క్యాంపస్ 250 ఎకరాల్లో విస్తరించి ఉంది. నూతన భవనాల నిర్మాణంలో కొన్ని చెట్లను నరకడం అనివార్యమైంది. వాటి స్థానంలో వాతావరణ సమతుల్యానికి మియావాకీ ఫారెస్ట్‌ను ఏర్పాటు చేశారు. ప్రస్తుతం క్యాంపస్ వేలాది మొక్కలతో ఆకుపచ్చందాల్ని అద్దుకుంది. కాగా మియావాకీ



మినీ ఫారెస్ట్‌లో చదువుకుంటున్న విద్యార్థులు



ఏపుగా ఎదిగిన మొక్కలు

ఫారెస్ట్‌లో భాగంగా వెదురు మొక్కలు, అల్ల నేరేడు, మోదుగు, జామాయిల్, జామ, వేప, రాగి చెట్లు, ఆక్సిజన్‌ను ఎక్కువగా విడుదల చేసే మొక్కలను నాటారు.

6 వేల మొక్కలే లక్ష్యం

మియావాకీ ఫారెస్ట్‌లో నాటిన మొక్కలను హరిత హారంలో ఎంపిక చేసి నిట్ క్యాంపస్‌కు రూ.2 లక్షల ప్రోత్సాహకాన్ని రాష్ట్ర ప్రభుత్వం అందించింది. మరికొద్ది రోజుల్లో 6 వేల మొక్కలు నాటడమే లక్ష్యంగా ముందుకు సాగుతున్నట్లు నిట్ యాజమాన్యం తెలుపుతోంది.

ఆహ్లాదానికి చిరునామా..

నిట్ విద్యార్థులు మియావాకీ ఫారెస్ట్‌లో గడిపి రోజూ ఆహ్లాదాన్ని పొందుతున్నారు. విద్యార్థులు వాకింగ్ చేస్తూ, చెట్ల కింద చదువుకుంటూ పచ్చని ఒడిలో సేదతీరుతున్నారు.

వాతావరణ సమతుల్యానికి



వాతావరణ సమతుల్యాన్ని కాపాడేందుకు విద్యార్థులకు ఆహ్లాదకర వాతావరణాన్ని అందించేందుకు మూడేళ్ల క్రితం మియావాకీ ఫారెస్ట్‌కు శ్రీకారం చుట్టాం. రెండెకరాల్లో ఫారెస్ట్‌ను ఏర్పాటు చేసి మొక్కలు నాటాం. భవిష్యత్‌లో క్యాంపస్‌లోని ఖాళీ స్థలాల్ని గుర్తించి మొక్కలు పెంచుతాం.

- ఎన్వీ.రమణారావు, నిట్ డైరెక్టర్

అడవిలో వెళ్లిన అనుభూతి



మియావాకీ ఫారెస్ట్‌లోకి వెళ్తే అడవిలోకి వెళ్లిన అనుభూతి కలుగుతోంది. మియావాకీ ద్వారా మొక్కల పెంపకం, సంరక్షణ గురించి తెలుసుకున్నాం. ఫారెస్ట్‌ను అభివృద్ధి చేసేలా జూనియర్లకు అవగాహన కల్పిస్తాం.

- వీదీశ్రీరామ్, పీహెచ్‌డీ స్కాలర్

ఇంటి ఆవరణలో పెంచుతా..



తక్కువ స్థలంలో ఎక్కువ మొక్కలు నాటి మియావాకీ ఫారెస్ట్‌ను ఏర్పాటు చేసుకున్నట్లుగానే.. ఇంటి ఆవరణలోనూ మొక్కలు పెంచుకోవాలనే ఆలోచన వచ్చింది. వాతావరణ కాలుష్య సమస్యలకు చెక్ పెట్టేందుకు ఫారెస్ట్ ఏర్పాటు మంచి పరిష్కారం.

- వినోద్‌నాయక్, పీహెచ్‌డీ స్కాలర్



ఈ రోడ్డుపై నీళ్లు నిలవవు!

వరంగల్ నిట్‌లో 'పోరస్ ఆస్ఫాల్ట్' రోడ్డుపై పరిశోధన • లోతట్టు, ముంపు ప్రాంతాల్లో ప్రయోజనం

కాజీపేట అర్బన్: ఏ చిన్నపాటి వాన కురిసినా రోడ్లపై నీళ్లు నిలుస్తాయి. వచ్చిపోయే వాహనాలతోపాటు పాదచారులకూ నరకమే. అదే భారీ వర్షాలు కురిస్తే రోడ్లపై నీళ్లతోపాటు లోతట్టు ప్రాంతాలు ముంపునకు గురవుతుంటాయి. ఇలాంటి పరిస్థితికి చెక్ పెట్టేందుకు తోడ్పడే 'పోరస్ ఆస్ఫాల్ట్' రోడ్డు, పేవ్‌మెంట్ల నిర్మాణంపై వరంగల్ నిట్ నిపుణులు పరిశోధన చేస్తున్నారు. నీరు నిలవకుండా ఎప్పటికప్పుడు ఇంకిపోయే ఈ తరహా రోడ్లను.. విదేశాల్లో పలుచోట్ల పార్కింగ్ స్థలాలు, ఉద్యానవనాలు వంటి చోట్ల ఇప్పటికే వినియోగిస్తున్నారు. దీనిని మన పరిస్థితులకు అనుగుణంగా అభివృద్ధి చేయడంపై నిట్ సివిల్ విభాగం ట్రాన్స్‌పోర్ట్ డివిజన్ ప్రొఫెసర్ ఎస్.శంకర్, పీహెచ్‌డీ స్కాలర్ గుమ్మడి చిరంజీవి పరిశోధన చేస్తున్నారు. 'పోరస్ ఆస్ఫాల్ట్ రోడ్డు/పేవ్‌మెంట్లతో నీరు నిల్వ ఉండకపోవడం వల్ల దోమలు, ఇతర కీటకాలు వృద్ధి చెందవని.. రోగాలు ప్రబలకుండా ఉంటాయని వారు చెప్తున్నారు.



నిట్‌లో 'పోరస్ ఆస్ఫాల్ట్' శాంపిల్

ఎప్పటికప్పుడు నీటిని వీల్చేనుకుని..

- సురక్షితమైన ప్రయాణానికి వీలు కల్పించే తారు, సీసీ రోడ్డు మాదిరిగానే 'పోరస్ ఆస్ఫాల్ట్' రోడ్డు ఉంటుంది. సాధారణంగా తారు, సీసీ రోడ్డును నాలుగు దశల్లో మట్టి, కంకర, తారు లేదా సిమెంట్ వినియోగించి నిర్మిస్తారు. ఇవి పూర్తిగా గట్టి పొరలా ఉండిపోయి.. లోతట్టు ప్రాంతాల్లో నీళ్ల నిలుస్తాయి.
- 'పోరస్ ఆస్ఫాల్ట్ పేవ్‌మెంట్/రోడ్డును 16 దశల్లో వేర్వేరుగా నిర్మిస్తారు. వివిధ పరిమాణాల్లో ఉన్న కంకరను వినియోగిస్తారు. రోడ్డు దృఢంగా ఉంటూనే.. పెద్ద సంఖ్యలో చిన్నచిన్న రంధ్రాలు ఏర్పడేలా చూస్తారు. నీటి ప్రవాహానికి తగినట్టుగా రంధ్రాలు ఉండేలా చూస్తారు.
- వర్షాలు పడినప్పుడు ఈ రోడ్డు నీటిని పీల్చుకుని భూగర్భంలోకి పంపేస్తాయి. వెంట వెంటనే నీళ్ల ఇంకిపోవడం వల్ల నిల్వ ఉండటం, ముంపునకు కారణం కావడం వంటివి ఉండవు.
- పట్టణాల్లో ఇలాంటి రోడ్డు/పేవ్‌మెంట్లను నిర్మించినప్పుడు వాటి దిగువ నుంచి నీళ్ల డ్రైనేజీల్లోకి వెళ్లిపోయేలా ఏర్పాట్లు చేస్తారు. దానితో ఎంతగా వానపడ్డా నీళ్ల నిలవవు.

ముంపు నివారణ కోసం..



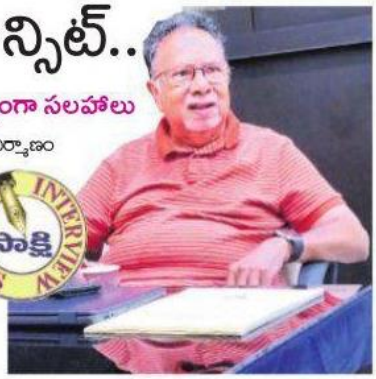
నిట్ వరంగల్ క్యాంపస్‌లో తొలుత పోరస్ ఆస్ఫాల్ట్ రోడ్డును 50 మీటర్ల మేర ఏర్పాటు చేయనున్నాం. దానిని పరిశీలించి అవసరమైన మార్పులు చేస్తాం. గ్రేటర్ వరంగల్‌లో వాన ముంపును నివారించేందుకు ఈ విధానాన్ని అందజేస్తాం. పైప్ డ్రెయిన్స్ లేని ప్రాంతాల్లో, ముంపునకు గురయ్యే ప్రాంతాల్లో ఈ రోడ్లను వేయడం వల్ల ఎంతో ప్రయోజనం ఉంటుంది. - శంకర్, ప్రొఫెసర్, సివిల్ విభాగం

సాక్షి వరంగల్ సిటీ Sun, 03 April 2022
https://epaper.sakshi.com/c/67210059

టార్గెట్.. ట్రాన్సిట్..

2040 ట్రాన్సిట్ ఓరుగల్లే లక్ష్యంగా సలహాలు

- ప్రజా రవాణాతోనే మెరుగైన సమాజ నిర్మాణం
- 50 ఏళ్లుగా ట్రాన్స్‌పోర్ట్ రంగంలో సూచనలు ట్రాఫిక్ సెన్స్‌తో ఇంధన ఆదా, సురక్షిత ప్రయాణం
- 'సాక్షి'తో అట్లాంటిక్ ట్రాన్స్‌పోర్టేషన్ ఇంజనీర్స్ సంస్థ అధ్యక్షుడు డాక్టర్ మూర్తి బీఏ.బొండాడ



కాజీపేట అర్బన్: మెరుగైన ప్రజా రవాణా వ్యవస్థకు ఓరుగల్లు లక్ష్యంగా నిట్ వరంగల్ వేదిక కానుంది. టార్గెట్-2040 ట్రాన్సిట్(రవాణా) కోసం మున్సిపల్, కుడా అధికారులకు సలహాలు, సూచనలు అందజేసేందుకు యూఎస్ గవర్నమెంట్ సౌజన్యంతో ఫుల్‌బ్రైట్ సంస్థ, నిట్ వరంగల్ అనుసంధానంగా ఫుల్‌బ్రైట్ స్పెషల్ ప్రోగ్రాం చేపట్టనున్నారు. ఈ మేరకు అట్లాంటిక్ ట్రాన్స్‌పోర్టేషన్ ఇంజనీర్స్ సంస్థ అధ్యక్షుడు డాక్టర్ మూర్తి పీఏ.బొండాడ 'సాక్షి'తో శనివారం తన మనోభావాలను పంచుకున్నారు. కాజీపేట నుంచి వరంగల్ వరకు గల 12 కిలో మీటర్ల నిడివిని తొలుత అధ్యయనానికి తీసుకున్నారు. ట్రాన్సిట్ ఓరుగల్లుగా తీర్చిదిద్దే లక్ష్యంగా యూఎస్ నుంచి నిట్ వరంగల్‌లో 42 రోజులపాటు ఇంటర్న్‌షిప్ ప్రోగ్రాం చేపట్టారు. ఆ వివరాలన్నీ ఆయన మాటల్లోనే...

కాకినాడ నుంచి యూఎస్‌లోని ఫ్లోరిడా వరకు..

ఏపీలోని కాకినాడకు చెందిన నేను కాకినాడలో ఉన్నత విద్య పూర్తి చేశాను. పీఆర్ కళాశాలలో సివిల్ ఇంజనీరింగ్ పూర్తి చేసి.. ఆంధ్రా, కడప, అనంతపురం పాలిటెక్నిక్ కళాశాలల్లో ప్రొఫెసర్‌గా సేవలందించాను. త్రిపుల్ ఐటీ ఖరగ్‌పూర్‌లో సిటీ ప్లానింగ్‌లో పని చేస్తున్న తరుణంలోనే 1969లో కాకినాడ నుంచి యూఎస్‌లోని ఫ్లోరిడాకు ప్రయాణం ప్రారంభించాను. ట్రాన్స్‌పోర్ట్ అండ్ ట్రాఫిక్ ఇంజనీరింగ్‌లో మాస్టర్, పీహెచ్‌డీ పూర్తి చేశాను. 1972 నుంచి 2022 వరకు అమెరికాలోని పలు ప్రాంతాలకు ట్రాన్స్‌పోర్ట్ రంగంలో యూఎస్ గవర్నమెంట్‌కు సూచనలు అందజేస్తున్నాను.

లాంగ్ రేయిన్ ట్రాన్స్‌పోర్ట్ విధానంతో...

అమెరికాలో ప్రతి ఇంటికి కారు ఉంటుంది. ప్రజా రవాణా వ్యవస్థ(బస్సు) సౌకర్యం ఉన్నా వినియోగం తక్కువ. దీన్ని మెరుగుపర్చేందుకు లాంగ్ రేయిన్ ట్రాన్స్‌పోర్ట్ విధానంపై సూచనలు అందజేస్తూ.. పర్యవేక్షణ కొనసాగిస్తున్నా. ప్రస్తుతం వివిధ రకాల వాహనాలపై ప్రయాణం చేసే వారిని అధ్యయనం చేస్తున్నా. 30 ఏళ్లకు నాటి జనాభాకు అనుగుణంగా లాంగ్ రేయిన్ ట్రాన్స్‌పోర్ట్ విధానంతో మెరుగైన రవాణా, ప్రయాణ వ్యవస్థ సాధ్యమవుతుంది.

ట్రాఫిక్ సెన్స్ కల్పించాలి...

పాలకులు ప్రజా రవాణా సౌకర్యం కల్పించాలి. రహదారులపై సైకిల్ ట్రాక్, వాకింగ్ ట్రాక్, బస్సు, కారు, టూ వీలర్లకు అనుగుణంగా మార్కింగ్ ఏర్పాటు చేయాలి. ఆయా మార్కింగ్‌లకు అనుగుణంగా ప్రయాణం చేసేలా ట్రాఫిక్ సెన్స్ కల్పించాలి. తద్వారా సురక్షితమైన ప్రయాణంతోపాటు ఇంధనం ఆదా అవుతుంది. వాహన కాలుష్యం తగ్గుతుంది.

అమెరికాలో సిటీ యాక్ట్...

అమెరికాలో కాళ్లు లేకున్నా కారు మాత్రం ఉంటుంది. ఇంటికో కారుండటం వల్ల పార్కింగ్, ట్రాఫిక్ సమస్య ఏర్పడుతుంది. దీంతో కంప్లీట్ సిటీ యాక్ట్ పేరిట సైకిల్ ట్రాక్, వాకింగ్ ట్రాక్, బస్సు, కారు, టూవీలర్ ట్రాక్ ఏర్పాటు చేస్తున్నారు. ఎక్కువగా కారు ట్రాక్‌లను గతంలో ఏర్పాటు చేయగా.. ప్రస్తుతం వాటిని తొలగించి కంప్లీట్ సిటీ యాక్ట్ అమలు చేస్తున్నారు.

26న కుడా అధికారులతో...

నిట్ వరంగల్ విద్యార్థులతో 42 రోజులపాటు ఇంటరాక్ట్ అవడంతోపాటు అధ్యయనం చేయిస్తా. ఈనెల 19న రాష్ట్రస్థాయిలో ట్రాఫిక్, కుడా, మున్సిపల్ అధికారులతో సమావేశం ఏర్పాటు చేసి సూచనలు, సలహాలు స్వీకరిస్తాం. ఈనెల 26న కుడా అధికారులతో భేటీ అయిన తర్వాత ట్రాన్సిట్ ఓరుగల్లుకు సూచనలు చేస్తా.

అందరికీ అనుగుణంగా ప్రజా రవాణా వ్యవస్థ

సామాన్యుడి నుంచి ఉన్నత స్థాయి వారికి అనుగుణంగా ప్రజా రవాణా వ్యవస్థను అందజేయాలి. ఇందుకోసం బస్సులు పెంచాలి. ప్రజా అవసరాలకు అనుగుణంగా బస్సులను కారు మాదిరిగా ఆకర్షణగా, స్టాపులు పెంచడం వల్ల ప్రతి ఒక్కరూ ఎక్కేందుకు ఆసక్తి చూపుతారు. కారు, టూవీలర్ కంటే బస్సు ప్రయాణం సురక్షితం. దీంతో ప్రజలకు ఇంధనం ఆదా.. ప్రభుత్వానికి ఆదాయం పెరుగుతుంది. ప్రభుత్వాలు ప్రత్యేక నిధులు కేటాయించి ట్రాఫిక్ సెన్స్‌ను పెంచేందుకు ట్రాక్‌లు, ప్రజా రవాణాకు బస్సు సౌకర్యం పెంచాలని ఆశిద్దాం.

సాక్షి వరంగల్ సిటీ Sun, 10 July 2022
https://epaper.sakshi.com/c/69086931









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