विज्ञान एवं प्रौद्योगिकी विभाग
DEPARTMENT OF
SCIENCE & TECHNOLOGY

Azadi Ka Amrit Mahotsav

Training Program on R&D Equipment organized by

Guru Nanak Dev University, Amritsar, Punjab

in Collaboration with

National Institute of Technology Warangal - 506 004, Telangana

Under

Synergistic Training Program Utilizing the Scientific and Technological Infrastructure (STUTI)

Call for Registration and Participation

No Registration Fee

Click to Register: https://forms.gle/MHpDF59m2g1MET6h6

Theme: Advanced Characterization Techniques for Chemical Scaffold

Program Dates: 21st- 27th September 2022

Venue: Guru Nanak Dev University, Amritsar

Register before: 7th September 2022





Scan to Register

Objectives of the Program:

To enable the participants to understand the principles, applications, and hands-on experience on sophisticated analytical instruments.

To gain knowledge about the in-depth analysis of the characterization techniques using high-end analytical instruments.

To interact with eminent professors/ scientists/ industrial research personnel and discuss real-time research and make collaborations.

To encourage the participants to utilize the facilities and enhance the research temper.

To create a research-friendly atmosphere by letting the creative minds of the country exchange ideas and share their knowledge among their fellow participants.

Eligibility Criteria:

Persons of Indian origin.
Faculty / Scientists / Post-Doc Fellows / Ph.D. Fellows / Industry Persons / M.Sc. students/ MTech. students who are actively involved in research and development (R&D) in the fields of Chemistry, Physics, Instrumentation, or any relevant area.

Important Instruction:

Fill in the prescribed bio-data form attached with this brochure and get it endorsed by the head of the institution. And keep the scanned copy ready, which needs to be uploaded during registration.

Organized by
Guru Nanak Dev University, Amritsar (Spoke) & NIT Warangal (Hub)

Funded by
DST, Govt of India

About STUTI:

The Scheme 'Synergistic Training program Utilizing the Scientific and Technological Infrastructure' (STUTI) is intended to build human resources and its knowledge capacity through open access to S&T Infrastructure across the country. As a complement to the various schemes of DST funding for expansion of R&D Infrastructure at academic institutions, the STUTI scheme envisions a hands-on training program and sensitization of the state-of-the-art equipment as well as towards sharing while ensuring transparent access to S&T facilities.

About Guru Nanak Dev University:

Guru Nanak Dev University established in 1969 has been conferred with the status of "University with Potential for Excellence" by UGC and accredited with A ++ grade by NAAC. It has been granted "Category One" status by UGC. The university has also been recognized for its exertions to reduce carbon footprint and has been ranked 2 nd amongst the cleanest Higher Educational Institutions in the category of Government Universities by the MHRD. The university is placed at 44 th position in NIRF Ranking of MHRD. In the field of sports, it is recognized as center of excellence and won MAKA Trophy for 23 times. In the field of research, the university has attained 126 h-index. 44 Departments of the University under various faculties are equipped with state of art facilities.

About NIT Warangal:

National Institute of Technology Warangal, formerly known as Regional Engineering College, was established in 1959. Over the years it has developed into a premier institute of higher learning and is ranked among the top technical education institutions in India. There are 14 Departments offering eight undergraduate, 35 post-graduate programs and guiding 952 PhD scholars besides post-doctoral programs. About 6864 students across the country including international students' study on the campus. It is a fully residential campus spread across 250 acres with excellent infrastructure in the form of state-of-the-art library, seminar halls, guest houses and research laboratories.

STUTI Team:

Chairmen
Prof. N. V. Ramana Rao,
Director, NIT Warangal
&
Prof. Jaspal Singh Sandhu
Vice-Chancellor, Guru Nanak Dev University, Amritsar

Co-Chairman
Prof. V. Rajeswar Rao,
Dean (R&C), NIT Warangal

Convenor
Dr. Renu Bhardwaj
Director Research, Guru Nanak Dev University, Amritsar

Principal Investigator
Prof. N. Narasaiah,
Dept. of Metallurgical and Material Engineering, NIT Warangal

Coordinators
Dr. T K Sai,
Principal Scientific Officer, CRIF, NITW & Co-PI, STUTI
Dr. Bhupinder Singh Chadha
Professor, Department of Microbiology, Guru Nanak Dev University, Amritsar

Program Coordinators
Dr. Jatinder Kaur
Head, Professor, Department of Botanical and Environmental Sciences, GNDU
Sri. Harish Madupu
Technical Officer, CRIF, NIT Warangal
Sri. D Ravi Kumar
Technical Officer, CTS, NIT Warangal

Note:

The shortlisted candidates will be intimated through mail. All the selected participants have to submit the uploaded bio-data form physically for the confirmation of participation.

Non-local participants are eligible for boarding/ lodging at the venue on double sharing basis.

For domestic travel of participants, the reimbursement for train/bus tickets is allowed as per actual up to 3AC fare (for outstation participants only).

Contact Us:

Dr. Jatinder Kaur (GNDU)

Sri. Harish Madupu (NIT Warangal)

Sri D. Ravikumar (NIT Warangal)

office_stuti@nitw.ac.in

Instruments covered under training:

LC-MS	**NMR**	**SEM**
Confocal/Fluorescence Microscope	**AAS**	**HPLC**
FTIR	**MPAES**	

Nuclear magnetic resonance spectrometer (NMR)

Make: Jeol
Model: 400mhz

Analysis/Application: Nuclear Magnetic Resonance is used to elucidate the structure of chemical and biochemical molecules of biological interest. NMR is widely used in drug discovery, target-drug interactions, solving the 3D structure of important protein, nucleic acid, DNA-protein interaction etc.





Scanning Electron Microscope (SEM)

Make: ZEISS
Model: EVO LS 10

Analysis/Application: Scanning Electron microscope is helpful in physical, chemical, and life science to explore the surface properties of metallic or biological macromolecules. The composition and proportion of different elements in metallic or biological particles can also be elucidated using advanced SEM equipment like "Field Emission Scanning Electron Microscopy".

Confocal Microscope/ fluorescence Microscope

Make: Nikkon Corporation
Model: Ti 2-E
Analysis/Application: Both are used to resolve the detailed structure of specific objects within the cell like imaging of cancer cells, plant cells, animal tissues, spore structure, live cell imaging of cancer and plant cells, etc.





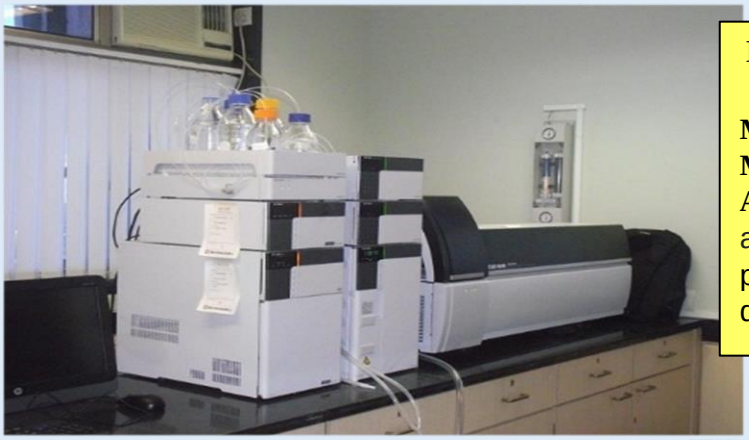
High-Pressure Liquid Chromatography (HPLC)

Make: Shimadzu Pte. Ltd.
Model: Shimadzu-Prep HPLC system
Analysis/Application: High-performance liquid chromatography is widely used to quickly analyze a mixture of chemicals, and or biological molecules. It is used in laboratories, clinical diagnosis, pharmaceutical industry, chemistry, and biological sciences.

Fourier transform infrared spectroscopy (FTIR)

Make: Shimadzu (Asia Pacific) Pte. Ltd.
Model: IR Tracer-100 AIM-9000
Analysis/Application: The composition of gases, solids, and liquids can be analyzed with FTIR spectra. FTIR is highly useful in screening applications in different fields of research and quality control.





Liquid Chromatography-Mass Spectroscopy (LC-MS)

Make: Bruker Daltonik
Model: microOTOF-QII
Analysis/Application: Determine the information about the molecular weight of chemical polypeptides or organic molecules and their quantification.

Microwave Plasma Atomic Emission Spectrometer (MPAES)

Make: Agilent Technologies Singapore (Sale) Pvt. Ltd.
Model: Agilent MP-AES System
Analysis/Application: Determine the information about the molecular structure and molecular weight of chemical polypeptides or organic molecules and their quantification.



BIODATA FOR STUTI-21 DST TRAINING PROGRAM

Guru Nanak Dev University (Spoke) & NIT Warangal (Hub)

NAME Prof./Dr./Mr./Ms.																

DESIGNATION																

ORGANIZATION																

DATE OF ENTRY IN SERVICE														

CATEGORY (GENERAL / SC / ST / OBC)									

DATE OF BIRTH										

SEX (M/ F)		

COMPLETE ADDRESS (OFFICE)																

COMPLETE ADDRESS (RESIDENCE)																

CONTACT DETAILS	PHONE (O)	PHONE (R)	MOBILE No.	E-MAIL

CONTD. 2

EDUCATIONAL / PROFESSIONAL QUALIFICATIONS (GRADUATION ONWARDS)					
Sr. No.	EXAMINATION/ DEGREE	UNIVERSITY/ INSTITUTE	YEAR	SUBJECT	DIVISION/% OF MARKS

EXPERIENCE					
Sr. No.	NAME OF THE ORGANIZATION	DESIGNATION	FROM	TO	DUTY PERFORMED

TRAINING ATTENDED				
Sr. No.	YEAR	NAME OF THE TRAINING PROGRAMME	NAME OF THE INSTITUTE	DURATION

CONTD.3

Guru Nanak Dev University (Spoke) & NIT Warangal (Hub)

RESEARCH EXPERIENCE				
Sr. No.	YEAR	TOPIC OF RESEARCH	SPONSORING AGENCY	GIST OF RESEARCH

PAPER PUBLISHED / PATENT FILED/OBTAINED				
Sr. No.	YEAR	TOPIC OF PAPER/ BOOK	GIST OF PAPER	NAME OF JOURNAL/ MAGAZINE/ PUBLISHER

Briefly give details of significant contributions made by you in the field of Science & Technology during your career. (100 words)

Date:
Place:

(Signature of the Participant)

(Head of the Institution)