







विज्ञान एवं प्रौद्योगिकी विभाग DEPARTMENT OF **SCIENCE & TECHNOLOGY**

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 ScaffoldProgram Dates: 21st- 27th September 2022Venue: Guru Nanak Dev University, AmritsarRegister b









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.

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

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Guru Nanak Dev University (Spoke) & N11 warangai (Hub)													
NAME Prof./Dr./Mr./Ms.													
DESIGNATION													
OPGANIZATION													
ORGANIZATION													
DATE OF ENTRY SERVICE	IN												
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DATE OF BIRTH]			
SEX (M/F)									-	-			
COMPLETE ADDRESS													
(OFFICE)													
COMPLETE													
ADDRESS (RESIDENCE)								 				 	
(RESIDENCE)													

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

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

EDUCA	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		

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

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

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

PAPER	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)