



विज्ञान एवं प्रौद्योगिकी विभाग
DEPARTMENT OF
SCIENCE & TECHNOLOGY

NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL

Warangal - 506 004, Telangana

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

Call for Registration and Participation Training Program on R&D Equipment

Theme : Hands-on training on Sophisticated Instrumentation Techniques
Program Dates : 08th – 14th February, 2023
Venue : Central University of Tamil Nadu, Thiruvaurur



Register before : 22th Jan, 2023



Scan to Register

No Registration Fee

Click to Register: <https://forms.gle/b9rWsm1awwFymr2C7>

Objectives of the Program:

- To enable the participants to understand the principles, applications, and hands-on experience on sophisticated analytical instruments.
- To help gain knowledge about the in-depth analysis of the characterization techniques using high-end analytical instruments.
- To facilitate interaction 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/ M.Tech. Students who are actively involved in research and development (R&D) in the fields of Physical/Chemical/Material Sciences, 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
Department of Chemistry, Central University of Tamil Nadu, Thiruvaurur
NIT Warangal, Telangana (Hub)

Funded by
DST, Govt of India

About Central University of TamilNadu:

Established in 2009, the surge and success of the CUTN in Thiruvavur thus far has been both momentous and monumental, charting a success story for itself and setting a decisive growth animus for this institution of higher education. Starting with just one programme and eight students, CUTN can now boast of phenomenal development with 58 programmes and over 3000 students in such a short spell. From the introduction of new programmes and curricular innovation to reach infrastructure development and faculty capacity building, the University has trained its focus in the right areas, and as a result, it has witnessed a huge rise in popularity across the nation drawing the best of minds from the far corners. CUTN represents over 23 Indian states apart from foreign students.

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 Ph.D 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.

Parton

Prof. M. Krishnan
Vice-Chancellor, CUTN

Chairman

Prof. N. V. Ramana Rao,
Director, NIT Warangal

Co-Chairman

Prof. Somasekhar V T,
Dean (R&C), NIT Warangal

Convenor

Prof. S. Nagarajan,
Head, Department of Chemistry & Dean (Academics), CUTN

Principal Investigator

Prof. N. Narasaiah,
Dept. of Metallurgical and Material Engineering, NITW

Co-Principal Investigator

Dr. T K Sai,
Principal Scientific Officer, CRIF, NITW

Program Coordinators

Dr. John Prakash
Assistant Professor
Department of Chemistry, Central University of Tamil Nadu

Sri Ravikumar D

Technical Officer, CRIF, NIT Warangal

Dr. Mijun Chandran

Technical Assistant
Department of Chemistry, Central University of Tamil Nadu

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 Central University of TamilNadu, on double sharing basis.
- For domestic travel of participants, the reimbursement for train/bus tickets is allowed as per actual up to 3AC fare via shortest distance (for outstation participants only).

Contact Us:

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NIT Warangal.
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About STUTI:

The Scheme 'Synergistic Training program Utilizing the Scientific and Technological Infrastructure' (STUTI) is intended to build human resource and its knowledge capacity through open access 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, 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 of S&T facilities.

Instruments covered for Training

- + HPLC
- + FT-IR
- + Fluorescence Spectrophotometer
- + NMR
- + LC-MS
- + TGA-DTA-DSC
- + UV/VIS/NIR Spectrophotometer

HPLC

Make: Shimadzu

Model: HPLC -PDA- LC-20 AD

Applications: High Performance Liquid Chromatography is used to separate a mixture of compounds obtained while synthesizing novel organic & inorganic molecules. It is used in biochemistry and analytical chemistry to identify, quantify and purify the individual components of the mixture.





FT-IR

Make: Shimadzu

Model: IR affinity 1S

Applications: It is used for the identification of functional groups organic, inorganic, and polymeric materials and hence its characterization using the strength of vibrational spectroscopy

FLUORESCENCE spectrophotometer

Make: Horiba Instruments

Model: Fluoromax c+

Applications: A sensitive technique for qualitative and quantitative analysis of fluorophoric systems. The device performed both in steady state and time domain mode.



LC-MS

Make: Thermo fisher

Model: Exactive plus

Applications: Ultra-sensitive qualitative and quantitative analysis of novel synthetic molecules and of molecular traces present in an analyte.





NMR

Make: Bruker

Model: Ascend 400 MHz

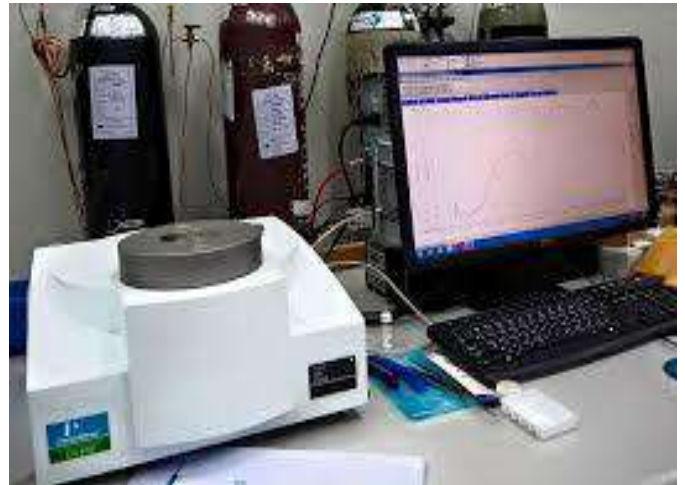
Applications: Identification of unknown materials, determination of chemical structures and quantification of components in a mixture and analysis of conformational and molecular dynamics by 1D and 2D NMR.

TGA-DTA-DSC

Make: PerkinElmer

Model: STA8000

Applications: STA8000 features simultaneous analysis of TGA, DTA & DSC. That is weight change, heat flow and heat differences a sample of interest with a reference sample over a temperature range can be simultaneously measured.



UV/VIS/NIR Spectrophotometer

Make: JASCO

Model: V-670

Applications: Analytical technique to determine the optical properties (transmittance, reflectance and absorbance) of liquids and solids. It is used to characterize semiconductor materials, coatings, glass and study molecular level interaction. UV/VIS/NIR operates in the optical range between 175 nm to 3300 nm

BIODATA FOR STUTI-21 DST TRAINING PROGRAM

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

DESIGNATION																		
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ORGANIZATION																		

DATE OF ENTRY IN SERVICE																		
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CATEGORY (GENERAL / SC / ST / OBC)																		
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DATE OF BIRTH																		
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SEX (M/ F)		
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COMPLETE ADDRESS (OFFICE)																		

COMPLETE ADDRESS (RESIDENCE)																		

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

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

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)