



**NATIONAL INSTITUTE OF TECHNOLOGY**

**WARANGAL**

Warangal - 506 004, Telangana State

**Synergistic technological Training program utilizing the scientific and Infrastructure (STUTI)**

**Material processing & Advanced material characterization techniques**

**A One Week Training Program on R & D Equipment**

**18<sup>th</sup> – 24<sup>th</sup> May 2022**

**27<sup>th</sup> May – 02<sup>nd</sup> June 2022**

**Call for Registration and Participation**

**Chairman**

**Prof. N. V. Ramana Rao,**  
*Director, NITW*

**Co-Chairman**

**Prof. V. Rajeswar Rao,**  
*Dean R&C*

**Coordinators**

**Prof. N. Narasaiah,**  
*Dept. of Metallurgy and Material Engineering*

**Dr. T. K. Sai**

*Central Research Instrumentation Facility*

**Organized by the Central Research Instrumentation Facility (CRIF)**

**Funded by DST**



**Overview of the STUTI program:**

The role of Science and Technology is pivotal for the evolution of mankind. The program is being organized as part of Azadi ka Amrit Mahotsav. The program consists of both theory and as well as hands on experience with various instruments, supported by DST. The uniqueness of the program includes minimum four hours theory and remaining 50% of the duration is on practical training on the equipment.

Effort would be made for hands-on use of equipment for demonstration/ characterization by each participant. The program's aim is to promote the research collaborations to the maximum extent. The metal processing and material characterization techniques have almost become essential for the various engineering & science researchers. They find extensive applications in the various fields of sciences, engineering and allied disciplines of research.

The **STUTI-21** DST supported training program is aimed to impart basic principles and advanced knowledge related to the basic sciences and materials and open new vistas for the participants. This training program provides a platform for interaction and exchange of innovative ideas on current trends in the fields of Science and Technology, with talks by eminent people in the field.

**Topics to be covered:**

- This program will focus on the effective teaching and learning of basic principles involved in the above instruments and their applications.
- Lectures on pedagogy.

**Resource Persons:**

Eminent Faculty from various reputed institutions, research organizations and faculty from NIT Warangal.

**Objectives of the Program:**

- To enable the participants to understand the principles and applications of XRD, SEM, MS, UV-Vis, IR Spectrophotometer etc.
- To enable the participants to gain knowledge about the principles and applications of GC, UTM, HPLC, XPS, NMR, DSC, TGA-DTA, 3D – Printing, Biaxial Shake Table and 3D – DIC.
- To gain the hands-on experience on XRD, SEM, MS, DSC, NMR, TGA-DTA, UV-Vis and IR Spectrophotometer.
- To gain hands-on experience on UTM, 3D – Printing, 3D – DIC, NDYAG LASER technique and DSC.
- To enable the participants to learn the new pedagogic approaches.

**Mode of Delivery:**

- Resource persons will deliver the lectures physically and hands-on sessions through physical mode.
- The essence of this program is to improve the teaching ability of the participants and enable learners to learn.
- The theme of the program is a way in building capacity of making better faculty or researcher or scientists.
- Lectures will be delivered through presentation, discussion and hands-on sessions.
- Ultimate goal of this event is to develop the faculty members/ research scholars/ scientists/ PDFs in the new pedagogy and emerging areas of science and technology.

**Venue:** Homi Bhabha Seminar Hall Complex & CRIF Building

## Registration and Eligibility Criteria:

- Persons of Indian origin.
- Minimum qualification should be B. Tech (Chemical, Civil, Mechanical & Metallurgical Engineering)/ PG in Physics and Chemistry/ M. Tech (Chemical, Civil, Mechanical & Metallurgical Engineering)
- Professors/Scientists/ Post-Doc Fellows/ Ph.D. Fellows/ Industry Persons who are actively involved in research and development (R&D) in the above fields.
- Not more than 3 participants from one institution per training program are allowed.

## Brief profile of the 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 the international standards. The central facility caters to the department requirements under a single umbrella by fostering interdisciplinary research. Students from the different branches of science and engineering come here for research and experimentation, creating a vibrant cross-disciplinary atmosphere. The CRIF is committed to expanding to facilitate state-of-the-art laboratory services to all academia and industries located across the country. The facility is spread across in an area of 28000 sq. ft.



## 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 and 35 post-graduate programs besides doctoral programs. About 5000 students across the country and about 500 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 laborato



Laser Assisted Machining System



Nd: YAG Laser



XRD



DSC



TGDTA



UTM



LC-HRMS



Scanning Electron Microscope



3D System-DMP Flex 100



MP-AES



Bi-axial Shake Table



DIC



400 MHz NMR

## How to Apply:

There is no registration fee for the participation.

- 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.
- Apply through the link below on or before **10<sup>th</sup> May 2022 11:59PM.** **18<sup>th</sup> May 2022 6PM(Extended)**

<https://forms.gle/KPAaEvMSAWgsat2m6>

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 NITW on single/double sharing basis subject to availability of accommodation. For domestic travel of participants, the reimbursement for train/bus tickets is allowed as per actual based on the eligibility (for outstation participants only).

## Contact us:

**Program Coordinator:**  
Mr. Harish Madupu  
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Email:  
[office\\_stuti@nitw.ac.in](mailto:office_stuti@nitw.ac.in)

**BIODATA FOR STUTI-21 DST TRAINING PROGRAM (27<sup>th</sup> May-02<sup>nd</sup> June 2022)**

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

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

<b>EXPERIENCE</b>					
Sr. No.	NAME OF THE ORGANISATION	DESIGNATION	FROM	TO	DUTY PERFORMED

<b>TRAINING ATTENDED</b>				
Sr. No.	YEAR	NAME OF THE TRAINING PROGRAMME	NAME OF THE INSTITUTE	DURATION

<b>RESEARCH EXPERIENCE</b>				
Sr. No.	YEAR	TOPIC OF RESEARCH	SPONSORING AGENCY	GIST OF RESEARCH

<b>PAPER PUBLISHED / PATENT FILED/OBTAINED</b>				
Sr. No.	YEAR	TOPIC OF PAPER/ BOOK	GIST OF PAPER	NAME OF JOURNAL/ MAGZINE/ PUBLISHER

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

**Date:**  
**Place:**

(Signature of the Participant)

(Head of the Institution)