



NATIONAL INSTITUTE OF TECHNOLOGY

WARANGAL

Warangal - 506 004, Telangana



Synthetic Training program utilizing the scientific and technological Infrastructure (STUTI)

A One Week Training Program

on

R & D Equipment

4th-10th April 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)**

**In Association with the
DST**



Overview of the STUTI program:

The role of Science and Technology is pivotal for the evolution of mankind. The program being organised as part of Azadi ka Amrit Mahotsav 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 spectroscopy has almost become essential tool for the chemist. It has made quantum leaps in the last decade, being a powerful field as physics, chemistry, material science, biology and medicine.

The STUTI-21 DST supported training program is aimed to impart basis principles and advanced knowledge related to the basic sciences 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.

Objectives of the Program:

- To enable the participants to understand the principles and applications of XRD, SEM, NMR, LC-HRMS, Fluorescence, UV-Vis-NIR Spectrophotometer etc.
- To enable the participants to gain knowledge about the principles and applications of ESR Spectroscopy and ICP-OES.
- To gain the hands-on experience on XRD, SEM, NMR, LC-HRMS, Fluorescence, UV-Vis-NIR Spectrophotometer.
- To enable the participants to learn the new pedagogic approaches and using free and open source for analyzing the various spectra.

Topics to be covered:

- This program will focus on the effective teaching and learning of experiments of XRD, SEM, NMR, LC-HRMS, Fluorescence, UV-Vis-NIR Spectroscopy and ICP-OES.
- Lectures on pedagogy.

Resource Persons:

Eminent Faculty from Central Universities, IITs, other institute and senior faculty from NIT Warangal.

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.

Registration and Eligibility Criteria:

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

Brief profile of the Center:

Centre for Automation and Instrumentation (CAI) was established in 2013 with an aim to provide **high-end** analytical facilities to various departments **to facilitate** inter disciplinary research at NITW. This facility is also utilized by external users from various R&D centers, Industries and **other institutes**. Presently, 20 high end /sophisticated instruments are available and they cater for the research needs of the institute. In addition to this, there are various other instruments in the Departments to serve the needs of Research Scholars, Post-Doctoral Fellows and faculty of the Institute and outside organizations such as Educational Institutions, Industries, R&D centers start-up Companies etc., In 2021 CAI was renamed as Central Research Instrumentation Facility (CRIF).

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 31 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 laboratories



Scanning Electron Microscope



400 MHz NMR

ICP-OES



XRD



LC-HRMS



UV-Vis-NIR Spectrometer

Fluorescence Work Station



X-Band ESR

How to Apply:

The candidates shall apply by filling the application through the link below on or before 1st April 2022.

<https://forms.gle/WuvA7PZCFuXptgak6>

The shortlisted candidates will be intimated through mail. 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 ticket is allowed as per actuals (for outstation participants only).

There is no registration fee for the participation. All the shortlisted participants have to submit the biodata form enclosed herewith. This is to be endorsed by the concerned head of the institute with seal. The incomplete applications will be rejected.

Contact us:

Co-coordinator:

Mr. Harish Madupu
Technical Officer, CRIF
Mob: 7010881253

e-mail: office_stuti@nitw.ac.in