

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

A One Week Training Program on R & D Equipment

18th- 24th April 2022

### **Call for Registration and Participation**

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

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

Coordinators Prof. N. Narasaiah, Professor, MMED, NIT Warangal

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

Organized by the Central Research Instrumentation Facility (CRIF), NIT Warangal &

JNTU Hyderabad

# 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 organized 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 DST supported training program is aimed to impart basic principles and advanced knowledge related to the basic sciences and open new vistas for students. The science awareness 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 Training Program:**

- To enable the participants to understand the principles and applications of XRD, BET, NMR, Microwave synthesizer, GC MS, Fluorescence, Ultrasonification, UV-Vis-DRS Spectrophotometer
- To enable the participants to gain knowledge about the principles and applications of TGDTA, FTIR and HPLC
- To gain the hands-on experience on XRD, BET, NMR, Microwave synthesizer, GC MS, Fluorescence, Ultrasonification, UV-Vis-DRS Spectrophotometer, TGDTA, FTIR and HPLC
- 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 on XRD, BET, NMR, Microwave synthesizer, GC MS, Fluorescence, Ultrasonification, UV-Vis-DRS Spectrophotometer, TGDTA, FTIR and HPLC
- Lectures on pedagogy.

#### Resource Persons:

Eminent Faculty from IICT, Central Universities 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 faculty 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: JNTUH, Kukatpally. Registration and Eligibility Criteria:

- a. Persons of Indian origin.
- b. Minimum qualification should be PG (Science) or B.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 area of mentioned subject.
- d. Not more than 3 people from one institution per training program are allowed.

#### About JNTUH, Hyderabad:

Jawaharlal Nehru Technological University, the First Technological University of India, was established on 2nd October 1972 in Andhra Pradesh with headquarters located in Hyderabad. The University is one of the premier Universities in India, accredited by NAAC with 'A' Grade. After successful and proven levels of appreciated existence and stature spanning over 36 years, JNTU has been divided into four different Universities by Govt. of Andhra Pradesh. through Act No.30, Dt. 24th September, 2008. The JNTUH Institute of Science and Technology is a constituent unit of Jawaharlal Nehru Technological University Hyderabad. It is established in 1989 and is currently offering postgraduate and research programs in interdisciplinary areas of science and technology leading to M.Sc, M.Tech and Ph.D degrees. The units offering academic programmes in the Institute are Biotechnology, Environmental sciences, Spatial Information technology, Chemical science and Pharmaceutical technology. sciences. Water resources and Nano Science and Technology. All the centres are equipped with state of art laboratories and the faculty members of the institute attract funded research projects.

#### **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 programmes. 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

#### Infrastructure available at JNTUH:





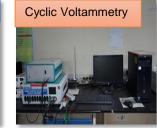








Microwave technique









#### How to Apply:

Eligible applicants are required to fill-in the prescribed BIODATA format attached herewith and get it endorsed by the concerned head of the institute with seal. The applicants are required to upload the same at the appropriate field in the link below on or before 11<sup>th</sup> April 2022.

#### https://forms.gle/8H5aVkVJ7DBeyFY86

Shortlisted candidates will be informed through mail. Only the non-local participants are eligible for boarding/lodging at JNTUH on single/double sharing basis subject to availability. For domestic travel of participants the reimbursement for train/bus ticket is allowed as per actual (For outstation participants only)

#### Contact us:

#### **Coordinator (JNTUH):**

Dr. Bhumireddy Ramadevi Professor & HoD, Chemistry, JNTUHCEH bhoomireddyramadevi@jntuh.ac.in **Coordinator (JNTUH):** Dr. CH Shilpa Chakra Asst. Professor & HoD, Centre for Nano Science & Technology (CNST), JNTUHIST shilpachakra.nano@intuh.ac.in **Co-coordinator (NITW):** Mr. Harish Madupu **Technical Officer, CRIF, NITW** Mob: 7010881253 e-mail: office stuti@nitw.ac.in





