



**SATHYABAMA**

INSTITUTE OF SCIENCE AND TECHNOLOGY  
(DEEMED TO BE UNIVERSITY)



**75**  
Azadi Ka  
Amrit Mahotsav



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: Theory and Hands-on Training on Advanced Characterization Techniques**

**Program Dates: 26<sup>th</sup> April – 2<sup>nd</sup> May 2023**

**Venue: Sathyabama Institute of Science and Technology, Chennai**



**Register before: 17<sup>th</sup> April 2023**



**Scan to  
Register**

**No Registration Fee**

Click to Register: <https://forms.gle/eb3whP9hY26SBjXs9>

#### 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/ M.Tech. Students who are actively involved in research and development (R&D) in the fields of Material Sciences, Chemical Sciences, Life 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**

**Sathyabama Institute of Science and Technology, Chennai (Spoke) & NIT Warangal, Telangana (Hub)**

**Funded by DST, Govt of India**

## About Sathyabama Institute of Science and Technology:

Sathyabama Institute of Science and Technology is one of the leading Higher Educational Institutions in India with a high reputation for teaching and research excellence. It is a Deemed to be University, established under Sec.3 of UGC Act, 1956 and has been accredited with 'A' Grade by the National Accreditation and Assessment council. Sathyabama has a good presence in rankings and ratings at National and International level. The Institution has been ranked in 43rd position by the National Institutional Ranking Framework (NIRF), Government of India among the Universities in India for the year 2022 and ranked one among the top 50 Universities for seven consecutive years. Sathyabama is ranked among the Top 5 Institutions in the Country for Innovation by ATAL ranking of Institution for Innovation Achievements, Govt. of India. Sathyabama Institute of Science & Technology has alliances with leading Universities and research establishments at National and International Level. It is a research-intensive University with world class laboratories and research facilities and is involved in research in the emerging areas of Science and Technology.

## 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:**

#### **Chairman**

**Prof. N. V. Ramana Rao,**  
*Director, NIT Warangal*  
**Dr. T. Sasipraba,**  
*Vice Chancellor, SIST, Chennai*

#### **Co-Chairman**

**Prof. Somasekhar V.T.,**  
*Dean (R&C), NIT Warangal*  
**Dr. B. Sheela Rani,**  
*Director-Research, SIST, Chennai*

#### **Convenor**

**Sri S Goverdhan Rao,**  
*Registrar, NIT Warangal*

#### **Principal Investigator**

**Prof. N. Narasaiah,**  
*Dept. of Metallurgical and Material Engineering,  
NIT Warangal, STUTI*

#### **Co-Principal Investigator**

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

#### **Program Coordinators**

**Dr. Sudha Uthaman,** *Assistant Professor, SIST*  
**Dr. Sanjeevi Prasath. S,** *Assistant Professor, SIST*  
**Sri Harish Madupu,** *Technical Officer, CRIF,*

### **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 Sathyabama Institute of Science and Technology, Chennai 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:**

**Sri Harish Madupu,**  
**Technical Officer, NIT Warangal**  
[office\\_stuti@nitw.ac.in](mailto:office_stuti@nitw.ac.in)  
**Dr. Sudha Uthaman**  
**Dr. Sanjeevi Prasath. S**  
**Assistant Professor, SIST, Chennai**

### **Technical Committee**

**Dr. Vengatesh. P**  
**Dr. L. Stanley Abraham**  
**Dr. Anandh Jesuraj. S**  
**Dr. Gopika. G**  
**Mr. Vigneshwaran. B**  
**Mr. Saravanan. C**  
**Mr. Jayakanth. J**  
**Ms. Sidhika**  
**Ms. M. Dhanalakshmi**

## 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:

RAMAN Spectrophotometer	HPLC-PDA	HRSTEM	Particle Size Analyzer
E-Beam deposit system	GC-FID	PCR	Animal Research Facilities
FESEM	AFM	TG-DSC/DTA	Cell Culture Facilities
FTIR	XRD	ICP-MS	Spectro-fluorometer

### E-Beam depot system

**Make:** FRANCE

**Model:** MEB 600, Plassys

**Applications:** Optical thin film applications as laser optics and solar panels to eyeglasses and architectural glass



### HRSTEM

**Make:** Thermofisher Scientific, USA

**Model:** TALOS F200S G2

**Applications:** To image atomic structure of molecules

## FESEM

**Make:** GERMANY

**Model:** ZEISS SIGMA 300

**Applications:** Surface morphology, advanced coating thickness and structure uniformity determination



## AFM

**Make:** Ireland

**Model:** NTEGRA PRIMA-NTMDT

**Applications:** Used for imaging of almost any type of surface, including polymers, ceramics, composites, glass and biological materials

## Confocal RAMAN Spectrophotometer

**Make:** Renishaw

**Model:** Renishaw

**Applications:** To study the vibrational, rotational, and low-frequency modes of the molecules.







### FTIR

**Make:** Japan

**Model:** JASCO, FTIR 6600

**Applications:** To quickly and definitively identify compounds such as compounded plastics, blends, fillers, paints, rubbers, coatings, resins, and adhesives

### XRD

**Make:** Thermofisher Scientific,  
USA

**Model:** ARL EQUINOX 3000

**Applications:** Identification of unknown crystalline materials (e.g. minerals, inorganic compounds)



### High Performance Liquid Chromatography-PDA

**Make:** Waters, USA

**Model:** 2545 HPLC-PDA

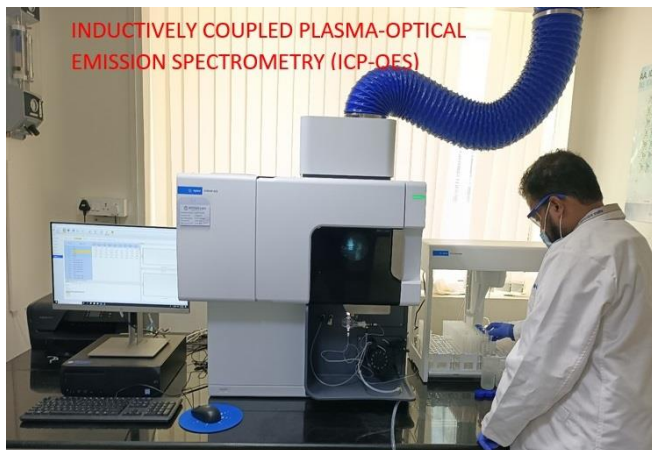
**Applications:** pharmaceutical, bioanalytical, food and beverage, clinical, forensic, environmental and drug development.

## Thermal Cycler

**Make:** Agilent Technologies

**Model:** SureCycler 8800

**Applications:** Amplification of target gene using PCR for various downstream applications such as genotyping, cloning, mutation detection, sequencing, microarrays, forensics, etc.



## Inductively coupled plasma mass spectrometry (ICP-MS)

**Make:** Agilent Technologies, USA

**Model:** 7700

**Applications:** Inductively coupled plasma mass spectrometry (ICP-MS) is an analytical technique that can be used to measure elements at trace levels in biological fluids

## Particle Size Analyzer

**Make:** Nanopartica

**Model:** SZ 100V2

**Applications:** Particle analyzers are used to determine the size and distribution of particles making up a material. Particle size analyzers are used in numerous fields for research and development, manufacturing and for quality control and product testing.



## **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

<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 REASEARCH

<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)