



विज्ञान एवं प्रौद्योगिकी विभाग  
DEPARTMENT OF  
**SCIENCE & TECHNOLOGY**

सत्यमेव जयते

## 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:** Advance Instrumentation for Earth and Environmental Sciences

**Program Dates:** 14<sup>th</sup> – 20<sup>th</sup> June 2023

**Venue:** CSIR-National Geophysical Research Institute, Hyderabad



**Register before: 31<sup>st</sup> May 2023**



**Scan to  
Register**

**No Registration Fee**

Click to register: <https://forms.gle/DiPEhY6GjZzAprA17>

#### Objectives of the Program:

To enable the participants to understand 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 professors/scientists/ industrial research personnel and discuss research trends 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 fellow participants.

#### Eligibility Criteria:

Faculty/ Scientists/ Post-Doctoral Fellows/ Research Scholars/ Industry Personnel who are actively involved in research and development (R&D) in the fields of Earth and Environmental Sciences/ or any relevant area.

#### Instructions for registration:

Fill-in the prescribed bio-data form attached with this brochure, and get it endorsed by the Head of the institution.

Keep the scanned copy ready, which needs to be uploaded during registration.

**Organized by**  
**CSIR-National Geophysical Research Institute (NGRI), Hyderabad**  
**(Spoke)**

**National Institute of Technology, Warangal, Telangana (Hub)**

**Funded by**  
**DST, Govt of India**

### About National Geophysical Research Institute (NGRI):

The National Geophysical Research Institute (NGRI), a constituent research laboratory of the Council of Scientific and Industrial Research (CSIR) was established in 1961 with the mission to carry out research in multi-disciplinary areas of the highly complex structure and processes of the Earth system and its extensively interlinked subsystems. NGRI has the mandate to conduct research for public-good science to enable government agencies, public and private sector stakeholders to make informed decisions about the use of geo-resources sustainably and improve preparedness and resilience to natural hazards. With over 100 scientists and equal number of technical staff, 150 project researchers and 60 PhD students, state-of-art computational and laboratory facilities and a nationwide network of observation sites, NGRI in partnership with sister agencies, public sector and private industries is committed to address the challenges of the near future and bring the benefits of science to impact societal priorities.

### 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:**

##### **Patron**

**Dr. Prakash Kumar**

*Director, CSIR-NGRI*

##### **Chairman**

**Prof. Bidyadhar Subudhi**

*Director, NIT Warangal*

##### **Co-Chairman**

**Prof. Somasekhar V. T**

*Dean (R&C), NIT Warangal*

##### **Conveners**

**Sri S Goverdhan Rao**

*Registrar, NIT Warangal*

**Dr. M. Ram Mohan**

*Chief Scientist, CSIR-NGRI*

##### **Principal Investigator**

**Prof. N. Narasaiah**

*Dept. of MME, NITW & PI, STUTI*

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

**Dr. T K Sai**

*Principal Scientific Officer, CRIF, NITW & Co-PI, STUTI*

##### **Program Coordinators**

**Dr. M. Satyanarayanan**

*Senior Principal Scientist, CSIR-NGRI*

**Dr. A. Keshav Krishna**

*Principal Scientist, CSIR-NGRI*

**Sri. D. Ravi Kumar**

*Technical Officer, CRIF, NIT Warangal*

**Sri. Harish Madupu**

*Technical Officer, CRIF, NIT Warangal*

#### **Note:**

The shortlisted candidates will be intimated through email. 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 **CSIR-National Geophysical Research Institute, Hyderabad** on double sharing basis.

For the outstation participants, reimbursement for train/ bus fare is limited to 3<sup>rd</sup> AC fare/ actual ticket, whichever is lower.

#### **Contact Us:**

**Sri. Harish Madupu**

Technical Officer, CRIF, NIT Warangal

**Sri. D. Ravikumar**

Technical Officer, CRIF, NIT Warangal

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**Dr. A. Keshav Krishna**

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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:

1. WD-XRF
2. HR-ICP-MS
3. Ion Chromatography
4. IR-MS
5. SEM-EDS
6. LA system
7. LSS
8. DI-IRMS
9. OSL

**Equipment Name: WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE SPECTROMETER**

**Make: Malvern Panalytical**

**Model: Axios mAX**

**Application:** For the determination of major oxides in geological samples. Useful in the mineral exploration and crustal evolution studies.



**Equipment Name: HIGH RESOLUTION INDUCTIVELY COUPLED PLASMA MASS SPECTROMETER**

**Make: Nu Instruments**

**Model: ATTOM**

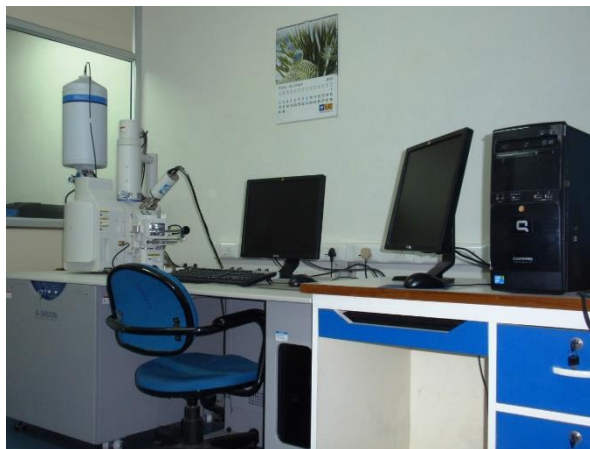
**Application:** For the determination of trace elements including REE and PGE in geological and environmental samples. It is useful in the mineral exploration, crustal evolution and environmental studies.

**Equipment Name: SCANNING ELECTRON MICROSCOPE-ENERGY DISPERSIVE SPECTROMETER**

**Make: HITACHI, Japan**

**Model: S-3400 N**

**Application:** Widely used for the imaging and characterization in material science, geological and environmental sciences. It is used for studying the sample surface topography, chemical composition etc.



**Equipment Name: ION-CHROMATOGRAPHY**

**Make: Metrohm**

**Model: 882 Compact IC Plus**

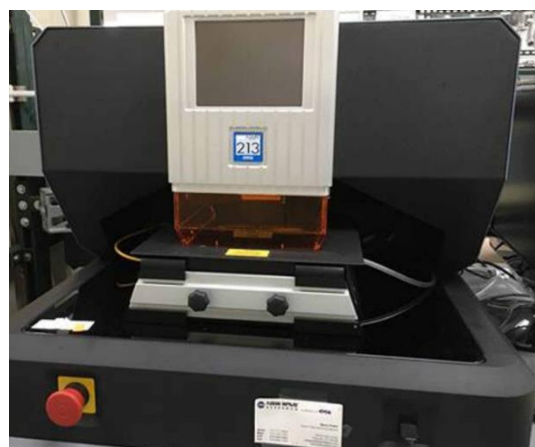
**Application:** It is used for the determination of anion and few cations in water samples. It is useful in the environmental sciences.

**Equipment Name: LASER ABLATION SYSTEM (coupled with HR-ICP-MS)**

**Make: ESI**

**Model: NWR 193**

**Application:** Used for the in-situ determination of trace elements and isotope ratios in minerals. It is useful in the earth sciences and materials science.







**Equipment Name: DUEL-INLET ISOTOPE RATIO MASS SPECTROMETER**

**Make: GB instruments**

**Model: Isoprime JB-202**

**Application:** It is used for analyzing stable isotopes in natural water samples. It has several applications in the hydrological and environmental sciences.

**Equipment Name: LIQUID SCINTILLATION SPECTROMETER**

**Make: Wallac**

**Model: Wallac Quantulus, 1220 Ultra-low level**

**Application:** It is used to detect ionizing radiation emitted by radioisotopes, with a specific focus on detecting alpha or beta particles; this allows for the measurement of the radioactivity of the sample for applications such as radiocarbon dating.



**Equipment Name: RISØ TL/OSL READER**

**Make: Risø National Laboratory Roskilde Denmark**

**Model: TL-DA-15**

**Application:** It is used for OSL dating of sediment grains to determine the age of Quaternary sedimentary deposits. It has applications in Radiation monitoring, archaeology and Quaternary Geology including paleo-seismic studies.

## 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 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)