







Department of Science & Technology

Government of India

# 24 - 30 Nov 202

Last date of Registration: 17 November 2022

### Organised by: Dept. of Instrumentation & USIC, GU

in collaboration with Shivaji University, Kolhapur, Maharashtra

under

Synergistic Training Program Utilizing The Science & Technology Infrastructure (STUTI)

# ABOUT

The programme will address all the aspects, from basic theory, instrumentation, experiment and analysis of the DST-sponsored facilities present at Gauhati University.

### **About Gauhati University**

Gauhati University (NAAC 'A'), established in 1948, is the oldest and the largest university in Northeast India and represents the academic and cultural background. With three active wings viz. Academic (M.Sc. and PhD), USIC and SAIF, the Department of  $lacktrel{+}$ Instrumentation & USIC is contributing by producing highly skilled manpower, analytical services to the research community of the country.

### **About Shivaji University**

Shivaji University is a NAAC 'A++' (2021) grade institution and has 276 affiliated colleges with 40 post-graduate departments. Various science departments of Shivaji University are well equipped different sophisticated instruments laboratory infrastructures procured using funds from various funding agencies including DST.

### DELIVERABLES

#### Powder XRD with SAXS attachment

Physicists, chemists and materials scientists generally use this facility, and usually this is the primary experimental technique for structure and phase identification. Apart from being the go-to characterization technique, the XRD comes with SAXS attachment mostly used for characterization of soft matter. Theory and the working principle of the instrument will be covered, along with a demonstration of complete sample analysis.

### **XRF**

This is an essential experimental characterization technique in geological sciences apart from materials science. Participants will learn about the working principle of the instrument. A detailed demonstration of different samples including geological samples will be covered in a hands-on session.

# One-Week Training Programme on

# OPPORTUNITIES FOR RESEARCH AND INNOVATION USING THE DST-SPONSORED FACILITIES OF GAUHATI UNIVERSITY



Who can apply:

- Faculty members
- Research scholars

A maximum of three participants per institute from India (except from the host institute) will be allowed to participate in the training programme.

Participants can register by filling up the application form (the link for the same is provided below).

Outstation participants who want to avail the lodging and boarding assistantship need to clearly mention/opt for the same in the application form.

Register at: https://t.ly/Lg92

Selection List will be published on 18 Nov 2022

Workshop updates: https://www.instgu.com/index.php/saif

### SCXRD

an essential part of crystallography, a tool been widely used by chemists, biologists employed mostly by chemists. Working prin- and materials scientists. The participants ciple of the instrument will be covered along will learn briefly about the principle behind with a hands-on session on the demonstra- NMR spectroscopy and how the spection of using this instrument.

### **+** UV-Vis-NIR Spectrometer

characterization technique employed by these instruments for thermal analysis of chemists, physicists and materials scientists. materials. We will learn the theory and Introduction to the theory involved, working of working principles of these instruments. A the instrument and application will be cov- complete demonstration on operation ered for this instrument. A hands-on session and thermal analysis techniques using will also be conducted.

### **NMR**

Structure determination of single crystals is Bruker 300 MHz NMR spectrometer has trometer is operated.

#### DSC and TGA

UV-visible spectroscopy is an important Researchers from various disciplines use these instruments will be covered along with a hands-on session.

## CONTACT

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