# e-Short Term Course (e-STC) on

Instrumental Techniques for Molecular Analysis (ITMA-2024)

 $21^{st} - 25^{th} May 2024$ 

Registration for e-STC is compulsory for all the delegates and the registration fee is non-refundable.

**Academia:** Rs. 500 for Faculty members and Rs. 200 for the Postdoc/RA/Research Scholars/UG/PG Students. No Registration fee for NITH Research Scholars/UG/PG students.

**Industry Persons: Rs. 2000** 

# **Payment Mode:** SBI Collect

To pay through SBI collect, select Payment Google > SBI Collect > Agree > Proceed > Himachal Pradesh > Educational Institutions > NIT Hamirpur > Payment Category > Workshop/ STC/ FDP/Conference

### **How to Register**

After making the payment of registration fees, all the participant will be mandatorily required to fill the Google form on the following link to enter their details.

https://docs.google.com/forms/d/1yrQg V3ZEGBt4IYyN9psBw\_AwGWaokYskn fmPE-iKr3k/edit

#### **Patron**

Prof. H. M. Suryawanshi Director, NIT Hamirpur, HP

# Chairperson

Dr. Kalyan S Ghosh Head, Department of Chemistry

#### Convener

Dr. Bharti Gaur

#### **Course Coordinator**

Dr. Raj Kaushal Dr. Jai Prakash

#### **Treasurer**

Dr. Jai Prakash

Department of Chemistry NIT Hamirpur, HP



# **Organizing Committee**

All Faculty and Staff members of Department of Chemistry, NIT Hamirpur

#### **Contact**

bhartigaur@nith.ac.in rajkaushal@nith.ac.in jaip@nith.ac.in

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An Initiative of
National Institute of Technology
Hamirpur





Organized by
Department of Chemistry
National Institute of Technology Hamirpur
Himachal Pradesh 177005
Phone: +91-1972-254102

Web: www.nith.ac.in

#### **About the Institute**

National Institute of **Technology** Hamirpur is one of leading NITs in India and is located at Hamirpur, Himachal Pradesh in a campus with scenic landscape. The Institute offers UG, PG and doctoral courses in different leading fields of engineering, science and humanities fostering the spirit of national integration among the students. The institute has renowned faculty members, excellent infrastructure and laboratories with state of art equipment facilities, which results an active engagement in research, consultancy and developmental activities besides imparting regular teaching.

## **About Department of Chemistry**

Department of Chemistry in NITH came existence as an independent department in 2009. The department is actively engaged in teaching UG courses students of engineering departments. The department also runs M.Sc. and Ph.D. programs in Chemistry. The research activities in the department include interdisciplinary and cuttingedge research areas like chemistry of materials, polymers and composites, synthetic organic and inorganic chemistry, drug design and development, protein biochemistry, nanobiomaterials etc.

# **Objectives and Scope**

Study of organic/inorganic materials at molecular level is important for their fundamental knowledge as well as for technological development. To achieve this, synthesis of materials, their modifications/functionalization and characterizations are of utmost importance. The present course will provide in-depth knowledge of various instrumental techniques for analysis of materials at molecular level. The main objective of this short term course is to educate the participants about the advanced instrumental techniques for molecular analysis along with their interdisciplinary applications.

The development of novel tools as well as characterizing/manipulating functional materials using advance instrumental techniques are the greatest challenges in materials research and development. This course will be highly beneficial for the participants from both the science and engineering streams because such instrumental techniques are being used in all disciplines of science and engineering.

# Last date of Registration: 16<sup>th</sup> May 2024

# Confirmation by e-mail: 17<sup>th</sup> May 2024

### **Topics to be covered**

- ■NMR techniques-PMR, C-13, 2D
- ■Electron Spin Resonance Spectroscopy
- Mass Spectrometry
- ■Thermal Techniques
- •Modern Techniques for Characterizing Magnetic Materials
- ■2D Carbon based Nanomaterial: Analysis and Interdisciplinary Applications
- UV-Vis/IR Techniques for molecular analysis

## **Number of Participants**

Number of participants is limited to 30 for this STC. Applications will be accepted on first-cum-first serve basis.

## **Targeted Participants**

Faculty members, research scholars and PG students from universities, academic/research institutes and colleges as well as employees from industries.

### **Resource Persons/Speakers**

Renowned Faculties/Experts from premier National Institutes like IISc, IITs, IISER, NITs, CSIR Labs, Universities and from reputed International Institutions/ Organizations will deliver the lectures.

#### Certification

Minimum 75% attendance is required to issuing the certificates.