

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

on

### Analytical Techniques in Chemical and Material Sciences: Experimental and Theoretical Tools (ATCMS-2025)

10<sup>th</sup> -14<sup>th</sup> January 2025

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

**Academia:** Rs. 200/- for Students, Rs. 500/- for the participants from Academia/R&D Labs. No Registration fee for NITH Research Scholars/UG/PG students.

**Industry Persons:** Rs. 1000/-

**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/e/1FAIpQ LSdGvLPZVfPXsocA2BLb5kuouKmcPq-viGINZySUogjjIxYfMA/viewform>

### Patron

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

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Dean FW, NIT Hamirpur

### Co-Chairperson

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Head, Department of Chemistry

### Convener

Dr. Pamita Awasthi  
Associate Professor

### Course Coordinator

Dr. Jagannath Kuchlyan  
Assistant Professor

### Treasurer

Dr. Jagannath Kuchlyan

*Department of Chemistry  
NIT Hamirpur, HP*



### Organizing Committee

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

### Contact

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*An Initiative of  
National Institute of Technology  
Hamirpur*



**Organized by**  
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**National Institute of Technology Hamirpur**  
**Himachal Pradesh 177005**  
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**Web: [www.nith.ac.in](http://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 in existence as an independent department in 2009. The department is actively engaged in teaching PG (Science) UG (Technical) courses and Ph.D. programs in Chemistry/ Applied Chemistry. Multidisciplinary research activities in cutting-edge areas like Synthetic organic/Inorganic chemistry, Bioactive molecule design and development, Physical/Biophysical Chemistry, polymers and nanomaterial etc. are carried out.

## Objectives and Scope

Analytical techniques are used to get structural description in various filed like chemistry, biochemistry, material science, bioscience etc. Understanding of the analytical techniques mainly comes from the experimental and theoretical basis. Advanced analytical tools involve the development of novel techniques to investigate the structure, functions, and properties of molecules or any scientific/engineering material. The proposed courses will provide a platform to discuss the recent developments and advances in the field of tools, technology and its application in chemical, material and biological sciences. This course introduces the technique development and discusses applications of specific tools to understand the structure and structural dynamics of the molecules and materials.

The main objective of the course is to provide students/faculty with understanding of experimental and theoretical techniques used in modern pure/ applied research. This e-short-term course provides a stage to the young researchers to gain in-depth knowledge of analytical tools and their application.

**Last date of Registration:**  
**7<sup>th</sup> January 2025**

**Confirmation by e-mail:**  
**8<sup>th</sup> January 2025**

## Topics to be covered

- Mass Spectrometry
- Time Resolved Spectroscopy
- Computational Chemistry
- Electrochemistry
- Advanced Chromatography Techniques
- Isothermal Titration Calorimetry
- Fluorescence Imaging Technique
- FTIR technique
- Ultrafast Spectroscopy

## Number of Participants

Number of participants is limited to 40 for this STC. Applications will be accepted on first-cum-first serve basis.

## Targeted Participants

Faculty members, research scholars and PG/UG 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 IITs, NITs, CSIR Labs, Central Universities and from reputed National Institutions/Organizations will deliver the lectures.

## Certification

Minimum 75% attendance is required to issuing the certificates.