

**Online Short Term Course (e-STC)
on
Advanced Materials Testing and
Characterization
(AMTC-2021)**

11th Jan – 15th Jan 2021

About NIT Hamirpur

National Institute of Technology Hamirpur is one of the thirty one NITs of the country, established in 1986 as Regional Engineering College, as a joint and cooperative enterprise of the Govt. of India and Govt. of Himachal Pradesh. The goals of the institute as embodied in the logo are truly remarkable in their scope of vision. The college provides Undergraduate, Postgraduate and Doctorate Education in Engineering, Sciences & Humanities, fostering the spirit of national integration among the students, a close interaction with industry and a strong emphasis on research, both basic and applied.

**About Department of Materials Science and
Engineering**

The Department of Materials Science and Engineering (Formerly Centre for Materials Science) has evolved into one of the finest in terms of teaching curriculum and methodology supported by a well-organized and adequately funded research program. The Department has a very well-established B. Tech. program complemented by an M. Tech. program. Apart from this many Research Scholars have got their Ph.D. in various areas of specialization and 10 Research scholars are ongoing in various areas of specialization. The department is, perhaps, the most versatile in terms of the range of specializations of its faculty members and a well experienced support staff.

**Patron
Prof. Lalit Kumar Awasthi
Director
National Institute of Technology Hamirpur**

**Chairman
Dr. Vishal Singh
Head**

**Department of Materials Science and
Engineering**

**Convener
Dr. Vishal Singh**

**Coordinator and Treasurer
Dr. Raj Bahadur Singh**

**Organizing Committee, All faculty and Staff of
Department of Materials Science and
Engineering
NIT Hamirpur.**

**Online Short Term Course (e-STC) will be
held using Google Meet**

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Advanced Materials Testing and
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**An Initiative of
National Institute of Technology Hamirpur**



**Organized
by**

**Department of Materials Science and Engineering,
National Institute of Technology Hamirpur,
Hamirpur, Himachal Pradesh – 177 005, India
Phone: +91-1972-254702/46
Web: www.nith.ac.in**

About e-Short Term Course

This e-Workshop is in line to the theme of providing a platform to expose the participants to the current and future challenges with their possible solutions along with brushing up the fundamentals of materials testing and characterization aspects. Lectures, exhaustive discussion, mutual interaction and idea sharing will certainly open an avenue to take a leap in the direction of mitigating the ongoing and future industrial needs in scientific ways.

Objectives and Scope

Materials testing and characterization is the key domain of Metallurgical and Materials Engineering. Quite often, the level of materials testing and characterization reflects the ability to adopt the new and upcoming industrial needs. Growth of a country primarily depends on the strength of developing new and advanced materials, which influence the automobile, aerospace, manufacturing and construction sectors. The prime objective of this workshop is to impart the comprehensive knowledge of advanced testing and characterization of metals and alloys along with special materials. This workshop will certainly enfold the three mutually dependent realms to cater the needs of metallurgical and materials industries and to enable the participants to address various upcoming issues and challenges related to materials and its testing and characterization

Topics to be Covered

- Introduction to Electron Microscopy
 - SEM
 - TEM
 - EBSD
 - EDX
- X-Ray Diffraction
- Spectroscopy
- Corrosion Testing and Analysis
- Fracture and Failure analysis
- Mechanical Testing

Resource Persons/Speakers Faculties/Experts from IITs, NITs, CSIR labs and other premier Institutions/Organizations will deliver the lectures.

Targeted Participants

Faculty from engineering institutes, universities, research scholars, UG/PG students, and other educational institutes and employees of the industries.

Number of Participants

Number of participants is limited for this workshop. Application will be accepted on *first-cum-first serve basis*.

Important Dates

Last date (Online Registration): 08-01-2021

Confirmation by E-mail: 09-11-2021

e-STC duration: 11-01-2021 to 15-01-2021

Registration Fee Details

- (a) Rs. 500 for Academia/R&D Labs participants
- (b) Rs. 200 for Students
- (c) Rs. 1000 for participants from Industry

Registration is compulsory for all the delegates. The registration fee is non-refundable.

How to Apply

➤ The interested candidates must deposit the registration fee through SBI collect with the following procedure

➤ Go to SBI collect and choose Himachal Pradesh as state of Institution and type of Institution as educational institute

➤ Choose NIT Hamirpur from Name of the Institutions and Select payment category as WORKSHOP FDP STC CONFERENCE

➤ Generate the payment slip and attach it with the registration form available at the following

<https://docs.google.com/forms/d/e/1FAIpQLScCvvYN1gwVEGqbEsxNw-ZuHyp188NB3OQJvcnNA71dpGlnRQ/viewform?vc=0&c=0&w=1&flr=0&gxids=7628>

Certificate

E-Certificate will be provided to those registered participants whose minimum attendance is 75% of the program.