About the Institution

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. On 26th June 2002, REC Hamirpur was awarded the status of Deemed University and upgraded to National Institute of Technology.

The goals of the institute as embodied in the logo are truly remarkable in their scope of vision. The Institute 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 the Department

The Department of Mechanical Engineering came into its existence right from the inception of the Regional Engineering College Hamirpur (now National Institute of Technology Hamirpur) in the year 1986 and served as catering department to other disciplines. The discipline of Mechanical Engineering started offering undergraduate programme leading to four-year Bachelor of Technology (B.Tech) degree in Mechanical Engineering in the year 1994.

The Department of Mechanical Engineering 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 M.Tech and Ph.D programs in Design, Thermal, and Manufacturing.

Patron

Prof. H. M. Suryavanshi

Director, National Institute of Technology Hamirpur

Chairman

Dr. Prashant Kumar

Head, Mechanical Engineering Department

Convener Dr. Mohit Pant

Coordinator(s)

Dr. Anshul Sharma Dr. Niharika Gupta

Treasurer
Dr. Mohit Pant

Organizing Committee

All Faculty and Staff Member of Mechanical Engineering Department, NIT Hamirpur

Contact Persons
Dr. Anshul Sharma

Assistant Professor Email: anshulsharma@nith.ac.in Mob: 9418736393

Dr. Niharika Gupta

Assistant Professor Email: niharikagupta@nith.ac.in, Mob: 9958114561 Online
Short-Term Course (e-STC)
On

Composite Structures for Engineering Applications: Mechanics, Fabrication & Analysis (CAMeA- 2026)

12th January 2026 - 16th January 2026 (Five Days)



Organized by

Department of Mechanical Engineering
National Institute of Technology Hamirpur
Hamirpur, Himachal Pradesh, India
Webswow with ac in

Objective of e-STC

- To provide participants with a fundamental and advanced understanding of the mechanics and behavior of composite structures.
- To introduce participants to fabrication techniques of composites, covering processing methods and challenges in manufacturing.
- To familiarize participants with analytical, numerical, and experimental tools for modeling, simulation, and analysis of composite structures under static, dynamic, and coupled-field loading.
- To explore applications of composite structures in aerospace, automotive, civil, and mechanical systems, highlighting case studies and real-world implementations.
- To encourage participants towards research and innovation by exposing participants to current trends, emerging materials (nanocomposites, 4D composites) and future directions in smart structural systems.

Resource Persons/Speakers

Faculties/Experts from IITs, NITs, Industries and other premier Institutions/Organizations will deliver the lectures.

Topics to be Covered:

Fundamentals Composites. Composite Structures & Smart Composites: Theory to **Fabrication** Applications. **Techniques** for Conventional and Smart Composites and Associated Challenges, Micro Mechanics & Homogenization of Composites, Experimental Characterization of Composites and Structures, Modeling and Analysis of Conventional and Smart Composite Structures using ABAQUS/ANSYS, Homogenization of Material Properties of Composites using ABAQUS/COMSOL, Damage and Fatigue Analysis of Composites using ABAQUS/ANSYS, Macro Mechanics of Composite Structures, Dynamic Response and Application of Composite Structures with FEM. Numerical **Modelling of composites using MATLAB**

RESOURCE PERSONS/SPEAKERS



Prof. Puneet Mahajan
Department of Applied Mechanics
IIT Delhi



Prof. I. D. Singh
Department of Mechanical and Industrial
Engineering
IIT Roorkee



Dr. K K Singh Department of Mechanical Engineering IIT (ISM) Dhanbad



Dr. Himanshu Pathak School of Mechanical and Materials Engineering IIT Mandi



Expert from ABAQUS



Dr. Mohit Pant
Department of Mechanical Engineering
NIT Hamirpur



Dr. Anshul Sharma Department of Mechanical Engineering NIT Hamirpur



Dr. Niharika Gupta
Department of Mechanical Engineering
NIT Hamirpur

Eligibility

This program is open to faculty members, scientists, research scholars, PG & UG Students and Industry Personnel.

Registration Fee: Rs. 200 for Students, Rs. 500 for Academia/Industry Personnel

How to Apply

The interested participants must deposit the nonrefundable registration fee through SBI-I collect and filling the Google form as given below:

https://forms.gle/qUbUZ6xmtsj7SdU16

The SBI-I collect has following steps:

- 1) Visit SBI collect at https://www.onlinesbi.sbi/sbicollect/icollecthom
 e.htm
- 2) Select State of Corporate/Institution: Himachal Pradesh and Type of Corporate/Institution as Educational Institution and click Go.
- 3) Select Educational Institutions Name: NIT Hamirpur
- 4) Select Payment Category: WORKSHOP STC FDP CONFERENCE (Last option)
- 5) Fill up all the details.
- a. Write TITLE of e-STC
- b. Organizing Department
- 6) Address: Filling Postal code is must
- 7) Submit the form and generate the receipt.

Notes: the applications will be accepted on "first come first serve" basis.

Venue: Through Google Meet. The link for the online course will be shared through email/ WhatsApp group later.