



International Workshop on Design and Manufacturing of Composites for Engineering Applications

(01 February 2021 to 05 February 2021)



Overview

Composites have large scale commercial applications in marine applications, aerospace, automotive, marine, sporting goods, infrastructure, energy storage, biomedical etc. In the recent years, the development of new and improved composites manufacturing processes has led to limitless product development opportunities. The subject of manufacturing will be dealt within the framework of composite materials. The design portion includes an explanation of the concepts involved in the detailed design analysis of composites.

Topics

- Fundamentals of Composites
- Engineering Applications of Composite Materials.
- Primary Manufacturing Processes for Composites
- Secondary Manufacturing Processes for Composites
- Mechanics of Composite Materials
- Introduction to Finite Element Method and Mesh-free technique for the design analysis of Composite materials
- ANSYS Parametric Design Language (APDL) Programming for Composite Structures
- Meanfield Homogenisation for Composite Materials (RVE Analysis for calculation of effective composite properties)
- Structure Health Monitoring of Composites

Eligibility

The course is open to Faculty Members, Students from Engineering Institutes/ Colleges/Polytechnics and Practicing Engineers from Industries and R&D Institutions. Seats are available on first come first serve basis.

Certificate will be provided only to registered participants through email.

Mode of Workshop

Online over Webex platform. Link will be shared with the registered participants

About IIT Mandi

Indian Institute of Technology Mandi or IIT Mandi is located at an average altitude of 3000 feet above sea level in the scenic forested Himalayan mountains along the banks of the river Uhl, a tributary of River Beas. IIT Mandi is an autonomous premier engineering and technology institute located in Kamand valley, Mandi, Himachal Pradesh. The institute was established in 2009 by the Ministry of Human Resource Development, Government of India. The focus of IIT Mandi is to spearhead cutting edge research and development of technologies needed by the world in the years to come. Research groups work together in creating and harnessing the newest technologies needed to serve the people of the region and the country, and to tackle problems of global importance.

For more information please visit: <https://www.iitmandi.ac.in/>

Confirmed Resource Persons

- Prof. J. Ramkumar (IIT Kanpur)
- Prof. Inderdeep Singh (IIT Roorkee)
- Prof. Apurbba Kumar Sharma (IIT Roorkee)
- Prof. Pierpaolo Carlone (University of Salerno, Italy)
- Dr. Rajeev Kumar (IIT Mandi)
- Dr. M.R. Sanjay (KMUTNB, Thailand)
- Dr. Diego Fernando Mora Mendez (Paul Scherrer Institute, Switzerland)
- Dr. Subhamoy Sen (IIT Mandi)
- Dr. Himanshu Pathak (IIT Mandi)
- Dr. Sunny Zafar (IIT Mandi)
- Dr. Swati Sharma (IIT Mandi)
- Dr. Prateek Saxena (IIT Mandi)

How to Apply

Registration fee

Interested participants can register by paying a fee as per following details.

- **Total payable amount for Indian Participants (inclusive of applicable GST): ₹ 354/- (INR three hundred fifty four only)**
- **Total payable amount for Foreign Participants : \$ 10/- (USD ten only)**
- Bank Name and Branch: Punjab National Bank, IIT Kamand
- Account number: 7315000100034369
- Account Holder Name: IIT Mandi SRIC Extension Activities
- IFSC code: PUNB0731500
- Swift code: PUNBINBBPAR
- IIT Mandi GSTIN: 02AAALI0149J1ZI
- IIT Mandi PAN: AAALI0149J
- **Registrations close on: ~~03rd January 2021~~ 10th January 2021 (Sunday)**

Registration form

After paying the registration fee, please fill the following form:

<https://forms.gle/AzGKfHOZBQaimF6z6>

Workshop Coordinators

Dr. Sunny Zafar and Dr. Himanshu Pathak

Composite Design and Manufacturing Research Group, School of Engineering
Indian Institute of Technology Mandi, Kamand, Mandi-175075 (Himachal Pradesh)

For any clarification, please contact:

Ms. Suruchi at: cdmrg.iitmandi@gmail.com

Tel (O): +91 1905 267277 (Mon-Fri, 9:30 am to 5:30 pm, except holidays)

