



Manufacturing and Mechanics of Composites

Phase-III

Mon, 17 Feb 2025 – Sat, 08 Mar 2025 (1.5hr/day);

8 PM – 9:30 PM; ONLINE- 27 hr lectures

Eligibility

Anyone interested in the theory of manufacturing and mechanics of composites

Syllabus

Manufacturing and Mechanics of Composite Materials (Includes Assessment)

Day 1 - 4

Introduction to Composites; Composites 5.0; Manufacturing of Fibres

Day 5 – 7

Micromechanics of UD and Short Fibre Composites; Manufacturing of Fabrics

Day 8 – 11

PMC, MMC; Meso-mechanics incl. Classical Lamination Theory, Macro-mechanics

Day 12 – 15

CMC; Nanocomposites; Mean-field Homogenisation. incl. theory behind software

Day 16 – 18

Bio-composites; Component Level Simulation; Testing of Composites

Lecture Plan

https://drive.google.com/file/d/193ZZuSGDe_qTW0bJb2jE9i27VUW6rauE/view?usp=sharing

Registration Link

<https://forms.gle/wYDkLrHnXURAJqty6> (Group registrations are allowed for minimum 10 participants from same organisation)

Scan QR code for more details

Organisers:

Principal Coordinator: Dr Nilanjan Das Chakladar, Assistant Professor

Joint Coordinator: Dr Atul Jain, Assistant Professor

Joint Coordinator: Dr Aghna Mukherjee, Assistant Professor

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***Note: The course is not open for IITKGP faculty/researcher/students**