

Departmental Seminar

Seminar Title	: Modern Composite Materials, Manufacturing and Application: New Generation
Speaker	: Subham Kumar Bhoi (Roll No: 523me1017)
Supervisor	: Prof. Saurav Datta (2524)
Venue	: ME Seminar Hall (ME-001)
Date and Time	: 31 Dec 2024 (03:00 PM)
Abstract	: This workshop gives a comprehensive overview of composite materials, their constituents, manufacturing processes, and applications in the various fields. It provides basic knowledge of the types of composites that include polymer, ceramic, metal matrix and hybrid composites reinforcement with multi-fibers and nanoparticles. Discussions on important topics like interphase effects, manufacturing techniques including filament winding, 3D printing, and out-of-autoclave curing, and quality assurance through non-destructive testing were held. Practical applications in aerospace, automotive, renewable energy, biomedical, and sports sectors were emphasized through case studies and lab sessions. Emerging trends on sustainable composites and recycling strategies were also discussed. Insights are learned from engaging tutorials as well as from interactive discussions on different kinds of fiber mats used: woven structure mats, 3D fabrics, and multi-yarn mats.