

Specialization	Faculty Members who are working in the mentioned specialization	Areas of Research														
Machine Design	<table border="1"> <tr><td>D Chakraborty</td></tr> <tr><td>Satyajit Panda</td></tr> <tr><td>Sachin Gautam</td></tr> <tr><td>Shyamanta Hazarika</td></tr> <tr><td>Uday Dixit</td></tr> <tr><td>Rinku Kumar Mittal</td></tr> <tr><td>Atanu Banerjee</td></tr> <tr><td>Tarkes Dora Pallicity</td></tr> <tr><td>Deepak Sharma</td></tr> <tr><td>Poonam Kumari</td></tr> <tr><td>Rajiv Tiwari</td></tr> <tr><td>Arup Nandy</td></tr> <tr><td>Santosha Dwivedy</td></tr> <tr><td>Poonam Kumari</td></tr> </table>	D Chakraborty	Satyajit Panda	Sachin Gautam	Shyamanta Hazarika	Uday Dixit	Rinku Kumar Mittal	Atanu Banerjee	Tarkes Dora Pallicity	Deepak Sharma	Poonam Kumari	Rajiv Tiwari	Arup Nandy	Santosha Dwivedy	Poonam Kumari	Machine Design; Vibrations; Solid Mechanics; Data-driven material modelling; Modelling of heterogenous materials; Rehabilitation Robotics; Robotic Neurorehabilitation; Quantum Computing in Computational Mechanic; Multi-Disciplinary Design and Optimization; Operations Research; Multiscale Modelling of Composites; Micromechanics and Homogenization; Application of Machine Learning in Material Modelling; Rotor Dynamics; Condition Monitoring of Machinery; Polymer Composites; Natural Fiber Reinforced Composites; Predictive Maintenance; Generative Design; Digital Twin in Machine Design; Electromagnetics; Functionally Graded Material Fabrication; FEM in Acoustics, Electromagnetics and Structures; Structural Optimization.
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Manufacturing and Materials	<table border="1"> <tr><td>Uday Dixit</td></tr> <tr><td>Manas Das</td></tr> <tr><td>Rinku Kumar Mittal</td></tr> <tr><td>Subramani Kanagaraj</td></tr> <tr><td>Swarup Bag</td></tr> <tr><td>Pankaj Biswas</td></tr> <tr><td>Prasenjit Khanikar</td></tr> <tr><td>Sukhomay Pal</td></tr> <tr><td>Deepak Sharma</td></tr> <tr><td>Sajan Kapil</td></tr> <tr><td>Ujendra Kumar Komal</td></tr> <tr><td>Senthilvelan Selvaraj</td></tr> <tr><td>Sukhomay Pal</td></tr> <tr><td>S N Joshi</td></tr> </table>	Uday Dixit	Manas Das	Rinku Kumar Mittal	Subramani Kanagaraj	Swarup Bag	Pankaj Biswas	Prasenjit Khanikar	Sukhomay Pal	Deepak Sharma	Sajan Kapil	Ujendra Kumar Komal	Senthilvelan Selvaraj	Sukhomay Pal	S N Joshi	Manufacturing Engineering; Metal Additive Manufacturing Technologies; CAD / CAM; Mechanical metamaterials; Impact energy absorbing materials; Metallurgy of 3D-printing; Natural Fiber Reinforced Composites; Polymer Composites; Repairing of underwater structures using composites; AI and ML in Machining Processes; Modelling of Manufacturing Processes; Digital twin in manufacturing; Composite Machining; Additive Manufacturing; Electromagnetic Forming; Electromagnetic Crimping; Dynamics in machining processes; Welding; Micromachining and micromanufacturing; Sustainable material design; Laser based manufacturing processes; Automation in manufacturing.
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Fluids and Thermal	<table border="1"> <tr><td>Dipankar Basu</td></tr> <tr><td>Amaresh Dalal</td></tr> <tr><td>Atul Kumar Soti</td></tr> <tr><td>Pranab Mondal</td></tr> <tr><td>Bhaskar Kumar</td></tr> <tr><td>Arnab De</td></tr> <tr><td>Niranjan Sahoo</td></tr> <tr><td>Vinodh Kumar Bandaru</td></tr> </table>	Dipankar Basu	Amaresh Dalal	Atul Kumar Soti	Pranab Mondal	Bhaskar Kumar	Arnab De	Niranjan Sahoo	Vinodh Kumar Bandaru	Fluid Mechanics; Thermal Engineering; Heat Transfer; Experimental investigation of flow-induced vibrations and its application in renewable energy; Development of in-house sensors for flow measurements; Numerical investigation of flow-induced vibrations; Flow and plants; Acoustofluidics; Magnetohydrodynamics (MHD), Turbulence; Direct Numerical Simulations (DNS) and Large Eddy Simulations (LES); Fusion Energy Generation; Tokamak Plasma Dynamics; Fluid Structure Interaction with rigid body collision; DNS and LES of turbulent shear flows using immersed boundary method; Turbulent Rayleigh-Benard convection over rotating rough surfaces; Active and passive flapping of thin plates with the aim of studying self-propelled regime; Computational Fluid Dynamics (CFD); Experimental Fluid Dynamics; Multiphase Flows; Biomicrofluidics; Finite Element Analysis in Multiphysics; Structure; Acoustics; Turbulence; Fluid-Structure Interaction; Flow-Induced Vibration.						
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