

## **Bouquet of MOOCs Courses**

**Name of the Board:** Mechanical Engineering

<b>Course Name</b>	<b>Course area</b>	<b>SME Name</b>	<b>Institute</b>	<b>Course Duration</b>
Advanced Fluid Mechanics	Mechanical Engineering	Prof. Suman Chakraborty	IIT Kharagpur	12 weeks
Advanced Machining Processes	Mechanical Engineering	Prof. Manas Das	IIT Guwahati	08 weeks
Advances In Welding And Joining Technologies	Mechanical Engineering	Prof. Swarup Bag	IIT Guwahati	08 weeks
Aircraft Propulsion	Mechanical Engineering	Prof. Vinayak N. Kulkarni	IIT Guwahati	12 weeks
Automation In Manufacturing	Mechanical Engineering	Prof. Shrikrishna N. Joshi	IIT Guwahati	12 weeks
BioMEMS And Microfluidics	Mechanical Engineering	Prof. Shantanu Bhattacharya	IIT Kanpur	08 weeks
Computational Continuum Mechanics	Mechanical Engineering	Prof. Sachin Singh Gautam	IIT Guwahati	12 weeks
Computational Fluid Dynamics Using Finite Volume Method	Mechanical Engineering	Prof. Kameswararao Anupindi	IIT Madras	12 weeks
Dynamic Behaviour Of Materials	Mechanical Engineering	Prof. Prasenjit Khanikar	IIT Guwahati	12 weeks
Energy Conservation And Waste Heat Recovery	Mechanical Engineering	Prof. P. K. Das, Prof. A Bhattacharya	IIT Kharagpur	12 weeks
Engineering Fracture Mechanics	Mechanical Engineering	Prof. K. Ramesh	IIT Madras	12 weeks
Finite Element Method: Variational Methods To Computer Programming	Mechanical Engineering	Prof. Atanu Banerjee, Prof. Arup Nandy	IIT Guwahati	12 weeks
Fluid Machines	Mechanical Engineering	Prof. Sankar Kumar Som	IIT Kharagpur	08 weeks
Foundations Of Cognitive Robotics	Mechanical Engineering	Prof. Bishakh Bhattacharya	IIT Kanpur	04 weeks
Fundamentals Of Artificial Intelligence	Mechanical Engineering	Prof. Shyamanta M. Hazarika	IIT Guwahati	12 weeks

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Fundamentals Of Surface Engineering: Mechanisms, Processes And Characterizations	Mechanical Engineering	Prof. D. K. Dwivedi	IIT Roorkee	12 weeks
Heat Exchangers: Fundamentals And Design Analysis	Mechanical Engineering	Prof. Prasanta Kumar Das, Prof. Indranil Ghosh	IIT Kharagpur	12 weeks
High Performance Computing For Scientists And Engineers	Mechanical Engineering	Prof. Somnath Roy	IIT Kharagpur	08 weeks
Introduction To Mechanical Vibration	Mechanical Engineering	Prof. Anil Kumar	IIT Roorkee	08 weeks
Mathematical Modeling Of Manufacturing Processes	Mechanical Engineering	Prof. Swarup Bag	IIT Guwahati	12 weeks
Mechanism And Robot Kinematics	Mechanical Engineering	Prof. Anirvan Dasgupta	IIT Kharagpur	08 weeks
Principles Of Vibration Control	Mechanical Engineering	Prof. Bishakh Bhattacharya	IIT Kanpur	04 weeks
Product Design And Development	Mechanical Engineering	Prof. Inderdeep Singh	IIT Roorkee	04 weeks
Rapid Manufacturing	Mechanical Engineering	Prof. J. Ramkumar, Prof. Amandeep Singh	IIT Kanpur	12 weeks
Selection Of Nanomaterials For Energy Harvesting And Storage Application	Mechanical Engineering	Prof. Kaushik Pal	IIT Roorkee	04 weeks
Solid Mechanics	Mechanical Engineering	Prof. Ajeet Kumar	IIT Delhi	12 weeks
Work System Design	Mechanical Engineering	Prof. Inderdeep Singh	IIT Roorkee	12 weeks
X-ray Crystallography & Diffraction	Mechanical Engineering	Prof. Ranjit Kumar Ray, Prof. S. Sankaran	IEST Shibpur	12 weeks
Advance Aircraft Maintenance	Aerospace engineering	Prof. A. K. Ghosh, Prof. Vipul Mathur	IIT Kanpur	08 weeks
Aircraft Stability And Control	Aerospace engineering	Prof. A. K. Ghosh	IIT Kanpur	12 weeks
Introduction To Airbreathing Propulsion	Aerospace engineering	Prof. Ashoke De	IIT Kanpur	12 weeks

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Introduction To Aircraft Design	Aerospace engineering	Prof. Rajkumar Pant	IIT Bombay	12 weeks
Introduction To Ancient Indian Technology	Aerospace engineering	Prof. D. P. Mishra	IIT Kanpur	08 weeks
Space Flight Mechanics	Aerospace engineering	Prof. Manoranjan Sinha	IIT Kharagpur	12 weeks
Dairy And Food Process And Products Technology	Agriculture Engineering	Prof. Tridib Kumar Goswami	IIT Kharagpur	12 weeks
Farm Machinery	Agriculture Engineering	Prof. V. K. Tewari	IIT Kharagpur	12 weeks
Fundamentals Of Food Process Engineering	Agriculture Engineering	Prof. Jayeeta Mitra	IIT Kharagpur	12 weeks
Irrigation And Drainage	Agriculture Engineering	Prof. Damodhara Rao Mailapalli	IIT Kharagpur	12 weeks
Organic Farming For Sustainable Agricultural Production	Agriculture Engineering	Prof. Dilip Kumar Swain	IIT Kharagpur	08 weeks
Thermal Operations In Food Process Engineering: Theory And Applications	Agriculture Engineering	Prof. Tridib Kumar Goswami	IIT Kharagpur	12 weeks
Thermal Processing Of Foods	Agriculture Engineering	Prof. R. Anandalakshmi	IIT Guwahati	12 weeks
Artificial Intelligence Search Methods For Problem Solving	Computer science and engineering	Prof. Deepak Khemani	IIT Madras	12 weeks
Bandit Algorithm (Online Machine Learning)	Computer science and engineering	Prof. Manjesh Hanawal	IIT Bombay	12 weeks
Big Data Computing	Computer science and engineering	Prof. Rajiv Misra	IIT Patna	08 weeks
Deep Learning	Computer science and engineering	Prof. Prabir Kumar Biswas	IIT Kharagpur	12 weeks
Deep Learning For Computer Vision	Computer science and engineering	Prof. Vineeth N Balasubramanian	IIT Hyderabad	12 weeks

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Design, Technology And Innovation	Enginnering Design	Prof. B.K. Chakravarthy	IIT Bombay	08 weeks
Ergonomics Workplace Analysis	Enginnering Design	Prof. Urmi R. Salve	IIT Guwahati	04 weeks
Functional And Conceptual Design	Enginnering Design	Prof. Asokan T	IIT Madras	12 weeks
Innovation By Design	Enginnering Design	Prof. B. K. Chakravarthy	IIT Bombay	04 weeks
System Design For Sustainability	Enginnering Design	Prof. Sharmistha Banerjee	IIT Guwahati	12 weeks
Body Language: Key To Professional Success	Humanities and social sciences	Prof. Rashmi Gaur	IIT Roorkee	04 weeks
Calculus Of One Real Variable	Humanities and social sciences	Prof. Joydeep Dutta	IIT Kanpur	08 weeks
Classical Sociological Theory	Humanities and social sciences	Prof. R. Santhosh	IIT Madras	12 weeks
Cognition, Transformation And Lives	Humanities and social sciences	Prof. Alok Bajpai	IIT Kanpur	04 weeks
Developing Soft Skills And Personality	Humanities and social sciences	Prof. T. Ravichandran	IIT Kanpur	08 weeks
Great Experiments In Psychology	Humanities and social sciences	Prof. Rajlakshmi Guha	IIT Kharagpur	04 weeks
Managing Intellectual Property In Universities	Humanities and social sciences	Prof. Feroz Ali	IIT Madras	04 weeks
Patent Law For Engineers And Scientists	Humanities and social sciences	Prof. Feroz Ali	IIT Madras	12 weeks
Decision-Making Under Uncertainty	Management	Prof. N. Gautam	Texas A&M Univ.	04 weeks
Innovation, Business Models And Entrepreneurship	Management	Prof. Rajat Agarwal, Prof. Vinay Sharma	IIT Roorkee	08 weeks

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Marketing Research And Analysis	Management	Prof. J. K. Nayak	IIT Roorkee	08 weeks
Path Integral Methods In Physics & Finance	Management	Prof. J. P. Singh	IIT Roorkee	12 weeks
The Future Of Manufacturing Business: Role Of Additive Manufacturing	Management	Prof. R. K. Amit, Prof. U. Chandrasekhar	IITM & Wipro 3D	08 weeks
Advanced Materials And Processes	Metallurgy and material science	Prof. Jayanta Das	IIT Kharagpur	12 weeks
Powder Metallurgy	Metallurgy and material science	Prof. Ranjit Bauri	IIT Madras	12 weeks
Structural Analysis Of Nanomaterials	Metallurgy and material science	Prof. Kaushik Pal	IIT Roorkee	04 weeks
Thermo-Mechanical And Thermo-Chemical Processes	Metallurgy and material science	Prof. Vivek Pancholi, Prof. S. R. Meka	IIT Roorkee	08 weeks
Welding Of Advanced High Strength Steels For Automotive Applications.	Metallurgy and material science	Prof. Murugaiyan Amirthalingam	IIT Madras	04 weeks
Designing Learner-centric E-learning In STEM Disciplines	Multidisciplinary	Prof. Sahana Murthy	IIT Bombay	04 weeks
Health Research Fundamentals	Multidisciplinary	Prof. P. Manickam	National Institute of Epidemiology	08 weeks
Learning Analytics Tools	Multidisciplinary	Prof. Ramkumar Rajendran	IIT Bombay	12 weeks
Neuroscience Of Human Movements	Multidisciplinary	Prof. Varadhan	IIT Madras	12 weeks
Teaching And Learning In General Programs: TALG	Multidisciplinary	Prof. N J Rao	IISc Bangalore	04 weeks