

Bouquet of MOOCs Courses

Table 1. List of certifiable courses approved for earning the extra credits under IP/IEM Board (Mechanical Engineering)

Sl. No.	Name of the Subject & Instructor	Duration in Weeks	Start Date	Exam Dates	Enrolment End	Intended Audience
1	Laws of Thermodynamics S.K .Som & Suman Chakraborty	4 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG
2	Optimization from fundamentals Ankur A Kulkarni	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	PG
3	Conduction and Convection Heat Transfer S .K .Som & Suman Chakraborty	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	UG
4	Automatic Control Anil Kumar	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG/PG
5	Principles of Industrial Engineering D K Dwivedi	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	UG
6	Processing of Polymers and Polymer Composites Inderdeep Singh	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG/PG
7	Operations Management Inderdeep Singh	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	UG/PG
8	Mechanical Measurement Systems Ravi Kumar	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG/PG
9	Principles of Casting Technology P K Jha	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG/PG
10	Financial Mathematics P K Jha	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	UG/PG
11	Mechatronics P M Pathak	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG/PG
12	Mechanics of Machining U S Dixt	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG/PG
13	Manufacturing Process Technology I & II Santanu Bhattacharya	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	UG/PG
14	Introduction to Robotics Ashish Dutta	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	UG/PG
15	Elements of Solar Energy Conversion Jishu Bhattacharya	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	UG/PG
16	Thermodynamics S R Kale	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	UG
17	Finite element modeling of welding processes Swarup Bag	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	UG/PG
18	Robotics: Basics and Selected Advanced Concepts Ashitava	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	UG/PG

	Ghosal					
19	Machining Science S K Choudhury	4 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	PG
20	Manufacturing Processes - Casting and Joining S K Choudhury	4 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG
21	Robotics and Control : Theory and Practice Prof. N. Sukavanam Prof. M. Felix Orlando	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG/PG
22	Oil Hydraulics and Pneumatics Prof. Somashekar S	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	UG/PG
23	Mechanics of Human Movement Prof. Sujatha Srinivasan	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	UG/PG
24	Fundamentals of Nuclear Power Generation Prof. Dipankar N. Basu	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	UG/PG
25	Principles of Mechanical Measurement Prof. Dipankar N. Basu	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	UG
26	Introduction to Abrasive Machining and Finishing Processes	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG/PG
27	Introduction to Machining and Machining Fluids Prof. Mamilla Ravi Sankar	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG/PG
28	Traditional and Non-Traditional Optimization Tools Prof. Dilip Kumar Pratihar	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG/PG
29	Nature and Properties of Materials Prof. Bishakh Bhattacharya	8 Weeks	February 15, 2021	April 25, 2021	February 15, 2021	UG
30	Smart Materials and Intelligent System Design Prof. Bishakh Bhattacharya	4 Weeks	February 15, 2021	April 25, 2021	February 15, 2021	UG/PG
31	Computational Fluid Dynamics and Heat Transfer Prof. Gautam Biswas	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	UG/PG
32	Computer Integrated Manufacturing Prof. J. Ramkumar	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	UG/PG
33	Product Design and Manufacturing Prof. J. Ramkumar	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	UG/PG
34	Industrial Automation and Control Prof. Siddhartha Mukhopadhyay	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	UG/PG

35	IC Engines and Gas Turbines Prof. Pranab K. Mondal	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	UG/PG
36	Welding Processes Prof. Murugaiyan Amirthalingam	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	UG/PG
37	Theory and Practice of Non Destructive Testing Prof. Ranjit Bauri	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG/PG
38	Materials Science and Engineering Prof. Vivek Pancholi	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG
39	Carbon Materials and Manufacturing Prof. Swati Sharma	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	PG
40	Solar Photovoltaics: Principles, Technologies & Materials Prof. Ashish Garg	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG/PG
41	Fundamentals of Material Processing - Part 2 Prof. Shashank Shekhar	8 Weeks	February 15, 2021	April 25, 2021	February 15, 2021	UG
42	Scanning Electron / Ion / Probe Microscopy in Materials Characterization Prof. Debabrata Pradhan	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	PG

**Table 2. List of certifiable courses approved for earning the extra credits by IP/IEM Students
(Interdisciplinary) Computer Science, Humanities & Social Sciences, Management**

Sl. No.	Name of the Subject	Instructor	Duration in Weeks	Start Date	Exam Dates	Enrolment End	Intended Audience
1	Programming in Java	Prof. Debasis Samanta	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	UG
2	Data Base Management System	Prof. Partha Pratim Das Prof. Samiran Chattopadhyay	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG/PG
3	Deep Learning - IITKGP	Prof. Prabir Kumar Biswas	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	UG/PG
4	Data Mining	Prof. Pabitra Mitra	8 Weeks	February 15, 2021	April 24, 2021	February 15, 2021	UG
5	Software Testing	Prof. Rajib Mall	4 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG/PG
6	Cloud computing	Prof. Soumya Kanti Ghosh	8 Weeks	February 15, 2021	April 25, 2021	February 15, 2021	UG
7	Cloud Computing and Distributed	Prof. Rajiv Misra	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG/PG

	Systems				2021		
8	Introduction to internet of things	Prof. Sudip Misra	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	UG
9	Introduction to Industry 4.0 and Industrial Internet of Things	Prof. Sudip Misra	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	PG
10	Programming, Data Structures And Algorithms Using Python	Prof. Madhavan Mukund	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG
11	Data Science for Engineers	Prof. Rangunathan Rengasamy Prof. Shankar Narasimhan	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG/PG
12	Introduction to Machine Learning	Prof. Balaraman Ravindran	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	UG/PG
13	Reinforcement Learning	Prof. Balaraman Ravindran	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	UG/PG
14	Artificial Intelligence: Knowledge Representation and Reasoning	Prof. Deepak Khemani	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	UG/PG
15	The Joy of Computing using Python	Prof. Sudarshan Iyengar Prof. Yayati Gupta	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	UG/PG
16	Python for Data Science	Prof. Rangunathan Rengasamy	4 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG
17	Discrete Mathematics - IIT Ropar	Prof. Sudarshan Iyengar	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	UG
18	Deep Learning - IIT Ropar	Prof. Sudarshan Iyengar	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	UG/PG
19	Discrete Mathematics - IIITB	Prof. Ashish Choudhury	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	UG/PG
20	An Introduction to Artificial Intelligence	Prof. Mausam	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	UG
21	Machine Learning, ML	Prof. Carl Gustaf Jansson	8 Weeks	February 15, 2021	April 25, 2021	February 15, 2021	PG

22	Introduction to Database Systems	Prof. Sreenivasa Kumar	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	UG
23	Product Design and Innovation	Prof. Supradip Das Prof. Swati Pal Prof. Debayan Dhar	4 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	PG
24	Fundamentals of Automotive Systems	Prof. C. S. Shankar Ram	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	UG/PG
25	Design, Technology and Innovation	Prof. B. K. Chakravarthy	8 Weeks	February 15, 2021	April 24, 2021	February 15, 2021	UG
26	Innovation by Design	Prof. B. K. Chakravarthy	4 Weeks	February 15, 2021	April 25, 2021	February 15, 2021	UG
27	Understanding Design	Prof. Nina Sabnani	4 Weeks	February 15, 2021	April 24, 2021	February 15, 2021	UG
28	Strategies for Sustainable Design	Prof. Shiva Ji	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	UG/PG
29	Introduction to Econometrics	Prof. Sabuj Kumar Mandal	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	UG
30	Enhancing Soft Skills and Personality	Prof. T. Ravichandran	8 Weeks	February 15, 2021	April 24, 2021	February 15, 2021	UG/PG
31	Emotional Intelligence	Prof. Rabindra Kumar Pradhan	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG/PG
32	Speaking Effectively	Prof. Anjali Gera Roy	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG
33	Employment Communication A Lab based course	Prof. Seema Singh	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG
34	Soft Skill Development	Prof. Priyadarshi Patnaik Prof. V. N. Giri Prof. D. Suar	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG/PG
35	Intellectual Property	Prof. Feroz Ali	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	UG/PG
36	Health Research Fundamentals	Prof. P. Manickam	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG
37	Patent Drafting for Beginners	Prof. Feroz Ali	4 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG/PG
38	Patent Law for Engineers and	Prof. Feroz Ali	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	UG/PG

	Scientists						
39	English language for competitive exams	Prof. Aysha Iqbal	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	UG/PG
40	Human Behaviour	Prof. Naveen Kashyap	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	PG
41	Introduction to Cognitive Psychology	Prof. Naveen Kashyap	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	UG/PG
42	Psychology of Stress, Health and Well-being	Prof. Dilwar Hussain	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	UG/PG
43	German - I	Prof. Milind Brahme	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	UG
44	German - II	Prof. Milind Brahme	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	UG
45	Psychiatry - An Overview and How the Brain Creates Mind	Prof. Alok Bajpai	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG/PG
46	Applied Statistics and Econometrics	Prof. Deep Mukherjee	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	UG/PG
47	Effective Writing	Prof. Binod Mishra	4 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG/PG
48	Introduction to Psychology	Prof. Braj Bhushan	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG
49	Introduction to Environmental Economics	Prof. Diptimayee Nayak Prof. S. P. Singh	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	UG/PG
50	Indian Economy: Some Contemporary Perspectives	Prof. Wasim Ahmad	8 Weeks	February 15, 2021	April 24, 2021	February 15, 2021	UG
51	An Introduction to Microeconomics	Prof. Vimal Kumar	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	PG
52	Economic Growth and Development	Prof. Rajshree Bedamatta	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG/PG
53	Energy Resources, Economics and Environment	Prof. Rangan Banerjee	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	UG/PG
54	Towards an Ethical Digital Society: From Theory to Practice	Prof. Bidisha Chaudhuri	4 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	PG

55	Strategic Performance Management	Prof. KBL Srivastava	8 Weeks	February 15, 2021	April 24, 2021	February 15, 2021	PG
56	Data Analysis and Decision Making - I	Prof. Raghu Nandan Sengupta	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	PG
57	Total Quality Management - I	Prof. Raghu Nandan Sengupta	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG/PG
58	Design Thinking - A Primer	Prof. Ashwin Mahalingam Prof. Bala Ramadurai	4 Weeks	February 15, 2021	April 24, 2021	February 15, 2021	UG/PG
59	Financial Statement Analysis and Reporting	Prof. Anil K. Sharma	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	UG/PG
60	Financial Management for Managers	Prof. Anil K. Sharma	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	UG/PG
61	Business Statistics	Prof. Mukesh Kumar Barua	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	UG/PG
62	Business analytics and data mining Modeling using R	Prof. Gaurav Dixit	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	UG/PG
63	MCDM Techniques using R	Prof. Gaurav Dixit	4 Weeks	February 15, 2021	April 24, 2021	February 15, 2021	UG/PG
64	Global Marketing Management	Prof. Zillur Rahman	8 Weeks	February 15, 2021	April 25, 2021	February 15, 2021	UG/PG
65	Marketing Research and Analysis-II	Prof. J. K. Nayak	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	UG/PG
66	Supply Chain Analytics	Prof. Rajat Agrawal	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG/PG
67	Production and Operation Management	Prof. Rajat Agrawal	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	PG
68	Business Analytics for Management Decision	Prof. Rudra P Pradhan	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	UG/PG
69	Engineering Econometrics	Prof. Rudra P Pradhan	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	UG/PG
70	Services Marketing: A Practical Approach	Prof. Biplab Datta	4 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG/PG
71	Sales and Distribution Management	Prof. Sangeeta Sahney	8 Weeks	February 15, 2021	April 25, 2021	February 15, 2021	UG/PG

72	Consumer Behaviour	Prof. Srabanti Mukherjee	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG/PG
73	Principles of Human Resource Management	Prof. Aradhna Malik	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG/PG
74	Managing change in organizations	Prof. KBL Srivastava	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG/PG
75	Management of Inventory Systems	Prof. Pradip Kumar Ray	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	UG/PG
76	Quality Design And Control	Prof. Pradip Kumar Ray	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	UG/PG
77	Six Sigma	Prof. Jitesh J Thakkar	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	UG/PG
78	Foundation Course in Managerial Economics	Prof. Barnali Nag	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG/PG
79	Technology Forecasting for strategic decision making - An Introduction	Prof. Dmitry KUCHARAVY Prof. Bala Ramadurai	4 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	PG
80	Marketing Management - II	Prof. Jayanta Chatterjee Prof. Shashi Shekhar Mishra	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG/PG
81	Management of Field Sales	Prof. Jayanta Chatterjee	4 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	UG/PG
82	Principles of Management	Prof. Usha Lenka	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	UG/PG
83	Integrated Marketing Management	Prof. R. Srinivasan	8 Weeks	January 18, 2021	March 21, 2021	January 25, 2021	PG
84	Talent Acquisition and Management	Prof. S. Rangnekar	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	UG/PG
85	Leadership for India Inc: Practical Concepts and Constructs	Prof. C Bhaktavatsala Rao	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	PG
86	Introduction to Operations Research	Prof. G. Srinivasan	8 Weeks	February 15, 2021	April 25, 2021	February 15, 2021	UG/PG
87	Marketing Analytics	Prof. Swagato Chatterjee	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	PG

88	Modelling and Analytics for Supply Chain Management	Prof. Kunal Kanti Ghosh Prof. Anupam Ghosh	12 Weeks	January 18, 2021	April 25, 2021	January 25, 2021	PG
89	Business Ethics	Prof. Susmita Mukhopadhyay	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	PG
90	Quality Control and Improvement with MINITAB	Prof. Indrajit Mukherjee	8 Weeks	February 15, 2021	April 25, 2021	February 15, 2021	PG
91	Design and Analysis of Experiments	Prof. Jhareswar Maiti	12 Weeks	January 18, 2021	April 24, 2021	January 25, 2021	PG