



VISVESVARAYA TECHNOLOGICAL UNIVERSITY, Belagavi
Proposed List of MOOCs (NPTEL July-Dec 2021 Timeline) for B.E Degree Honours

Electronics and Instrumentation Engineering (EI/BM/ML)

**Table 1. List of Certifiable Courses Approved for Earning the Extra Credits under
Name of the Board: Electronics and Instrumentation Engineering (EI/BM/ML)**

Sl. No.	Name of the Subject & Subject Matter Expert(SME)	Duration in Weeks	Start Date	End Date	Exam Dates	Enrolment End Date
1	Fundamentals of Food Process Engineering Prof. Jayeeta Mitra	12 Weeks	July 26, 2021	October 15, 2021	October 23, 2021	August 02, 2021
2	Biomedical nanotechnology Prof. P. Gopinath	4 Weeks	August 23, 2021	September 17, 2021	October 23, 2021	August 23, 2021
3	Genetic Engineering: Theory and Application Prof. Vishal Trivedi	12 Weeks	July 26, 2021	October 15, 2021	October 23, 2021	August 02, 2021
4	Drug Delivery: Principles and Engineering Prof. Rachit Agarwal	12 Weeks	July 26, 2021	October 15, 2021	October 23, 2021	August 02, 2021
5	Chemical Process Control Prof. Sujit Jogwar	8 Weeks	August 23, 2021	October 15, 2021	October 24, 2021	August 23, 2021
6	Wastewater Treatment and Recycling Prof. Manoj Kumar Tiwari	12 Weeks	July 26, 2021	October 15, 2021	October 23, 2021	August 02, 2021
7	Remote Sensing and GIS Prof. Rishikesh Bharti	8 Weeks	July 26, 2021	September 17, 2021	September 26, 2021	August 02, 2021
8	Global Navigation Satellite Systems And Applications Prof. Arun K. Saraf	4 Weeks	July 26, 2021	August 20, 2021	September 26, 2021	August 02, 2021
9	Problem solving through Programming In C Prof. Anupam Basu	12 Weeks	July 26, 2021	October 15, 2021	October 23, 2021	August 02, 2021
10	Programming in C++ Prof. Partha Pratim Das	8 Weeks	July 26, 2021	September 17, 2021	September 26, 2021	August 02, 2021
11	Data Base Management System Prof. Partha Pratim Das Prof. Samiran Chattopadhyay	8 Weeks	July 26, 2021	September 17, 2021	September 26, 2021	August 02, 2021
12	Computer architecture and organization Prof. Indranil Sengupta Prof. Kamalika Datta	12 Weeks	July 26, 2021	October 15, 2021	October 23, 2021	August 02, 2021



VISVESVARAYA TECHNOLOGICAL UNIVERSITY, Belagavi
Proposed List of MOOCs (NPTEL July-Dec 2021 Timeline) for B.E Degree Honours

Electronics and Instrumentation Engineering (EI/BM/ML)

13	Cloud computing Prof. Soumya Kanti Ghosh	8 Weeks	August 23, 2021	October 15, 2021	October 23, 2021	August 23, 2021
14	Programming, Data Structures And Algorithms Using Python Prof. Madhavan Mukund	8 Weeks	July 26, 2021	September 17, 2021	September 26, 2021	August 02, 2021
15	Data Science for Engineers Prof. Rangunathan Rengasamy Prof. Shankar Narasimhan	8 Weeks	July 26, 2021	September 17, 2021	September 26, 2021	August 02, 2021
16	Introduction to Operating Systems Prof. Chester Rebeiro	8 Weeks	July 26, 2021	September 17, 2021	September 26, 2021	August 02, 2021
17	Software Testing Prof. Meenakshi D'souza	12 Weeks	July 26, 2021	October 15, 2021	October 24, 2021	August 02, 2021
18	Social Networks Prof. Sudarshan Iyengar	12 Weeks	July 26, 2021	October 15, 2021	October 23, 2021	August 02, 2021
19	The Joy of Computing using Python Prof. Sudarshan Iyengar Prof. Yayati Gupta	12 Weeks	July 26, 2021	October 15, 2021	October 23, 2021	August 02, 2021
20	Deep learning - IITRopar Prof. Sudarshan Iyengar	12 Weeks	July 26, 2021	October 15, 2021	October 23, 2021	August 02, 2021
21	Python for Data Science Prof. Rangunathan Rengasamy	4 Weeks	July 26, 2021	August 20, 2021	September 26, 2021	August 02, 2021
22	Artificial Intelligence Search Methods For Problem Solving Prof. Deepak Khemani	12 Weeks	July 26, 2021	October 15, 2021	October 23, 2021	August 02, 2021
23	C Programming and Assembly Language Prof. Janakiraman Viraraghavan	4 Weeks	July 26, 2021	August 20, 2021	September 26, 2021	August 02, 2021
24	Operating System Fundamentals Prof. Santanu Chattopadhyay	12 Weeks	July 26, 2021	October 15, 2021	October 24, 2021	August 02, 2021
25	Introduction to algorithms and analysis Prof. Sourav Mukhopadhyay	12 Weeks	July 26, 2021	October 15, 2021	October 23, 2021	August 02, 2021



VISVESVARAYA TECHNOLOGICAL UNIVERSITY, Belagavi
Proposed List of MOOCs (NPTEL July-Dec 2021 Timeline) for B.E Degree Honours

Electronics and Instrumentation Engineering (EI/BM/ML)

26	Deep Learning for Computer Vision Prof. Vineeth N Balasubramanian	12 Weeks	July 26, 2021	October 15, 2021	October 24, 2021	August 02, 2021
27	C-Based VLSI Design Prof. Chandan Karfa	12 Weeks	July 26, 2021	October 15, 2021	October 24, 2021	August 02, 2021
28	Real-Time Systems Prof. Rajib Mall Prof. Durga Prasad Mohapatra	12 Weeks	July 26, 2021	October 15, 2021	October 24, 2021	August 02, 2021
29	Innovation by Design Prof. B. K. Chakravarthy	4 Weeks	August 23, 2021	September 17, 2021	October 24, 2021	August 23, 2021
30	Design, Technology and Innovation Prof. B. K. Chakravarthy	8 Weeks	August 23, 2021	October 15, 2021	October 23, 2021	August 23, 2021
31	Fabrication Techniques for MEMS-based sensors: clinical perspective Prof. Hardik Jeetendra Pandya	12 Weeks	July 26, 2021	October 15, 2021	October 24, 2021	August 02, 2021
32	Op-Amp Practical Applications: Design, Simulation and Implementation Prof. Hardik Jeetendra Pandya	12 Weeks	July 26, 2021	October 15, 2021	October 24, 2021	August 02, 2021
33	Pattern Recognition and Application Prof. Prabir Kumar Biswas	12 Weeks	July 26, 2021	October 15, 2021	October 23, 2021	August 02, 2021
34	Introduction to Photonics Prof. Balaji Srinivasan	12 Weeks	July 26, 2021	October 15, 2021	October 23, 2021	August 02, 2021
35	Microwave Engineering Prof. Ratnajit Bhattacharjee	12 Weeks	July 26, 2021	October 15, 2021	October 24, 2021	August 02, 2021
36	System Design Through VERILOG Prof. Shaik Rafi Ahamed	8 Weeks	July 26, 2021	September 17, 2021	September 26, 2021	August 02, 2021
37	Integrated Photonics Devices and Circuits Prof. Bijoy Krishna Das	12 Weeks	July 26, 2021	October 15, 2021	October 24, 2021	August 02, 2021
38	Introductory Neuroscience & Neuro-Instrumentation	12 Weeks	July 26, 2021	October 15, 2021	October 24, 2021	August 02, 2021



VISVESVARAYA TECHNOLOGICAL UNIVERSITY, Belagavi
Proposed List of MOOCs (NPTEL July-Dec 2021 Timeline) for B.E Degree Honours

Electronics and Instrumentation Engineering (EI/BM/ML)

	Prof. Mahesh Jayachandra					
39	Mathematical Aspects of Biomedical Electronic System Design Prof. Chandramani Singh	12 Weeks	July 26, 2021	October 15, 2021	October 23, 2021	August 02, 2021
40	Developing Soft Skills and Personality Prof. T. Ravichandran	8 Weeks	August 23, 2021	October 15, 2021	October 24, 2021	August 23, 2021
41	Health Research Fundamentals Prof. P. Manickam	8 Weeks	July 26, 2021	September 17, 2021	September 26, 2021	August 02, 2021
42	Patent Drafting for Beginners Prof. Feroz Ali	4 Weeks	July 26, 2021	August 20, 2021	September 26, 2021	August 02, 2021
43	Patent Law for Engineers and Scientists Prof. Feroz Ali	12 Weeks	July 26, 2021	October 15, 2021	October 23, 2021	August 02, 2021
44	Soft skills Prof. Binod Mishra	12 Weeks	July 26, 2021	October 15, 2021	October 24, 2021	August 02, 2021
45	Science, Technology and Society Prof. Sambit Mallick	12 Weeks	July 26, 2021	October 15, 2021	October 23, 2021	August 02, 2021
46	Environment and Development Prof. Ngamjahao Kipgen	12 Weeks	July 26, 2021	October 15, 2021	October 23, 2021	August 02, 2021
47	Body language: Key to professional Success Prof. Rashmi Gaur	4 Weeks	July 26, 2021	August 20, 2021	September 26, 2021	August 02, 2021
48	Entrepreneurship and IP Strategy Prof. Gouri Gargate	8 Weeks	July 26, 2021	September 17, 2021	September 26, 2021	August 02, 2021
49	Patent Search for Engineers and Lawyers Prof. M Padmavati Prof. Shreya Matilal	8 Weeks	August 23, 2021	October 15, 2021	October 23, 2021	August 23, 2021
50	Knowledge Management Prof. KBL Srivastava	8 Weeks	July 26, 2021	September 17, 2021	September 26, 2021	August 02, 2021
51	Ethics in Engineering Practice Prof. Susmita Mukhopadhyay	8 Weeks	August 23, 2021	October 15, 2021	October 23, 2021	August 23, 2021



VISVESVARAYA TECHNOLOGICAL UNIVERSITY, Belagavi
Proposed List of MOOCs (NPTEL July-Dec 2021 Timeline) for B.E Degree Honours

Electronics and Instrumentation Engineering (EI/BM/ML)

52	Innovation, Business Models and Entrepreneurship Prof. Rajat Agarwal Prof. Vinay Sharma	8 Weeks	August 23, 2021	October 15, 2021	October 24, 2021	August 23, 2021
53	Decision-Making Under Uncertainty Prof. N. Gautam	4 Weeks	August 23, 2021	September 17, 2021	October 24, 2021	August 23, 2021
54	Automation in Production Systems and Management Prof. Pradip Kumar Ray	12 Weeks	July 26, 2021	October 15, 2021	October 24, 2021	August 02, 2021
55	Decision Modeling Prof. Biswajit Mahanty	8 Weeks	July 26, 2021	September 17, 2021	September 26, 2021	August 02, 2021
56	Essential Mathematics for Machine Learning Prof. Sanjeev Kumar Prof. S.K. Gupta	12 Weeks	July 26, 2021	October 15, 2021	October 24, 2021	August 02, 2021
57	Regression Analysis Prof. Soumen Maity	12 Weeks	July 26, 2021	October 15, 2021	October 23, 2021	August 02, 2021
58	Numerical methods Prof. Ameeya Kumar Nayak Prof. Sanjeev Kumar	8 Weeks	August 23, 2021	October 15, 2021	October 23, 2021	August 23, 2021
59	Matrix Analysis with Applications Prof. S.K.Gupta Prof. Sanjeev Kumar	8 Weeks	August 23, 2021	October 15, 2021	October 24, 2021	August 23, 2021
60	Introduction to Fuzzy Set Theory, Arithmetic and Logic Prof. Niladri Chatterjee	12 Weeks	July 26, 2021	October 15, 2021	October 23, 2021	August 02, 2021
61	Mathematical Methods and its Applications Prof. P. N. Agrawal Prof. S. K. Gupta	12 Weeks	July 26, 2021	October 15, 2021	October 23, 2021	August 02, 2021
62	Advanced Engineering Mathematics Prof. P.N. Agarwal	12 Weeks	July 26, 2021	October 15, 2021	October 24, 2021	August 02, 2021
63	Operations Research Prof. Kusumdeep	8 Weeks	July 26, 2021	September 17, 2021	September 26, 2021	August 02, 2021
64	Introduction to Probability Theory and	12 Weeks	July 26, 2021	October 15, 2021	October 23, 2021	August 02, 2021



VISVESVARAYA TECHNOLOGICAL UNIVERSITY, Belagavi
Proposed List of MOOCs (NPTEL July-Dec 2021 Timeline) for B.E Degree Honours

Electronics and Instrumentation Engineering (EI/BM/ML)

	Stochastic Processes Prof. S Dharmaraja					
65	Probability and Statistics Prof. Somesh Kumar	12 Weeks	July 26, 2021	October 15, 2021	October 23, 2021	August 02, 2021
66	Automation in Manufacturing Prof. Shrikrishna N. Joshi	12 Weeks	July 26, 2021	October 15, 2021	October 24, 2021	August 02, 2021
67	Biomechanics of Joints and Orthopaedic Implants Prof. Sanjay Gupta	8 Weeks	August 23, 2021	October 15, 2021	October 24, 2021	August 23, 2021
68	Techniques of Material Characterization Prof. Shibayan Roy	12 Weeks	July 26, 2021	October 15, 2021	October 24, 2021	August 02, 2021
69	Structural Analysis of Nanomaterials Prof. Kaushik Pal	4 Weeks	July 26, 2021	August 20, 2021	September 26, 2021	August 02, 2021
70	Nanomaterials and their Properties Prof. Krishanu Biswas	12 Weeks	July 26, 2021	October 15, 2021	October 24, 2021	August 02, 2021
71	Neuroscience of Human Movements Prof. Varadhan	12 Weeks	July 26, 2021	October 15, 2021	October 23, 2021	August 02, 2021
72	Stress Management Prof. Rajlakshmi Guha	4 Weeks	July 26, 2021	August 20, 2021	September 26, 2021	August 02, 2021
73	Learning Analytics Tools Prof. Ramkumar Rajendran	12 Weeks	July 26, 2021	October 15, 2021	October 23, 2021	August 02, 2021
74	Accreditation and Outcome based Learning Prof. AK Ray Prof. Shyamal Kumar Das Mandal	8 Weeks	July 26, 2021	September 17, 2021	September 26, 2021	August 02, 2021
75	Solar Energy Engineering and Technology Prof. Pankaj Kalita	12 Weeks	July 26, 2021	October 15, 2021	October 23, 2021	August 02, 2021
76	Current regulatory requirements for conducting clinical trials in India for investigational new drugs/new drug (Version 3.0) Prof. Arun B. Ramteke Prof. Sucheta Banerjee	8 Weeks	August 23, 2021	October 15, 2021	October 23, 2021	August 23, 2021



VISVESVARAYA TECHNOLOGICAL UNIVERSITY, Belagavi
Proposed List of MOOCs (NPTEL July-Dec 2021 Timeline) for B.E Degree Honours

Electronics and Instrumentation Engineering (EI/BM/ML)

	Kurundkar Prof. Nandini K Kumar Prof. Y. K. Gupta Prof. D. K. Sable Prof. Rubina Bose Prof. Vishnu Rao					
77	Numerical Methods for Engineers Prof. Niket Kaisare	12 Weeks	July 26, 2021	October 15, 2021	October 23, 2021	August 02, 2021
78	Numerical Methods And Simulation Techniques For Scientists And Engineers Prof. Saurabh Basu	8 Weeks	August 23, 2021	October 15, 2021	October 23, 2021	August 23, 2021