Department of Civil Engineering
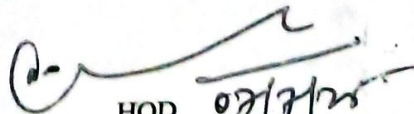## Jabalpur Engineering College, Jabalpur

List of NPTEL Courses for the students of B. Tech (AICTE) / B.Tech (PTDC)-III/V/VII Semester Civil Engineering . (Session July-Dec 2025). Start Date is July 21, 2025 and last date for enrolment is 28/7/25.

Sr No.	Course ID	Course Name	SME Name	Institute	Duration
1	noc25-ce102	Transportation Network Analysis	Prof. Hemant Gehlot	IIT Kanpur	8 Weeks
2	noc25-ce77	Global Navigation Satellite Systems and Applications	Prof. Arun. K. Saraf	IIT Roorkee	4 Weeks
3	noc25-ce101	Dynamics of Structures	Prof. Manish Kumar	IIT Bombay	12 Weeks
4	noc25-ce104	River Engineering	Prof. Subashisa Dutta	IIT Guwahati	8 Weeks
5	noc25-ce105	Optimization Methods for Civil Engineering	Prof. Rajib Kumar Bhattacharjya	IIT Guwahati	12 Weeks
6	noc25-ce110	Advanced Structural Analysis	Prof. Devesh Punera	IIT Bhubaneswar	12 Weeks
7	noc25-ce111	Geotechnical Earthquake Engineering	Prof. Kousik Deb	IIT Kharagpur	12 Weeks
8	noc25-ce113	Introduction to Multimodal Urban Transportation Systems (MUTS)	Prof. Arkopal Kishore Goswami	IIT Kharagpur	12 Weeks
9	noc25-ce114	Rock Mechanics and Tunneling	Prof. Debarghya Chakraborty	IIT Kharagpur	12 Weeks
10	noc25-ce117	Sustainable Engineering Concepts and Life Cycle Analysis	Prof. Brajesh Kumar Dubey	IIT Kharagpur	8 Weeks
11	noc25-ce119	Geoengineering	Prof. R. K. Dubey	IIT-ISM Dhanbad	12 Weeks
12	noc25-ce124	Computational Geomechanics	Prof. Shantanu Patra	IIT Bhubaneswar	12 Weeks
13	noc25-ce128	Earth Sciences for Civil Engineering (Hindi)	Prof. Javed N Malik	IIT Kanpur	8 Weeks
14	noc25-ce130	Earthquake Geotechnical Engineering	Prof. B. K. Maheshwari	IIT Roorkee	12 Weeks
15	noc25-ce131	Sustainable Groundwater Management	Prof. Elango Lakshmanan	IIT Madras	12 Weeks
16	noc25-cs147	Introduction to Internet of Things	Prof. Sudip Misra	IIT Kharagpur	12 Weeks
17	noc25-ce139	Geotechniques of Dams, Tunnels and Underground Spaces	Prof. R. K. Dubey	IIT-ISM Dhanbad	12 Weeks
18	noc25-mg79	Decision-Making Under Uncertainty	Prof. N. Gautam	Syracuse University	4 Weeks
19	noc25-ce93	Admixtures and Special Concretes	Prof. Manu Santhanam	IIT Madras	12 Weeks
20	noc25-ce76	Finite Element Method and Computational Structural Dynamics	Prof. Manish Shrikhande	IIT Roorkee	12 Weeks

Note : If any student have already successfully completed any SWAYAM/MOOC/NPTEL course in previous semesters, can't opt the same course again for getting B. Tech honours degree certificate.

NPTEL CO-ORDINATOR
Civil Engineering

HOD 02/7/25
Civil Engineering

Jabalpur Engineering College, Jabalpur
Mechanical Engineering Department

List of NPTEL courses for session July - December 2025:

B. Tech III SEM/ B. Tech (PTDC) III SEM

S.NO	Course Code	Course Name	Duration	Credit	Exam date	Instructor/ Prof. Incharge
1	noc25-me108	Engineering Mechanics	12 Week	3	25 October 2025	Prof. K. Ramesh, Prof. Tarkes Dora Pallicity IIT Guwahati
2	noc25-me104	Basics of Materials Engineering	12 Week	3	25 October 2025	Prof. Ratna Kumar Annabattula IIT Madras
3	noc25_hs159	Soft Skills	12 Week	3	25 October 2025	Prof. Binod Mishra IIT Roorkee
4	noc25_me149	Advances in Welding and Joining Technologies	8 Week	2	02 Nov 2025	Prof. Swarup Bag IIT Guwahati
5	noc25-me98	Engineering Economic Analysis	8 Week	2	02 Nov 2025	Prof. Pradeep K. Jha IIT Roorkee

B. Tech V SEM/ B. Tech (PTDC) V SEM

S.NO	Course Code	Course Name	Duration	Credit	Exam date	Instructor/ Prof. Incharge
1	noc25_me125	Rapid Manufacturing	12 Week	3	26 October 2025	Prof. J. Ramkumar, Prof. Amandeep Singh Oberoi IIT Kanpur
2	noc25_de21	System design for sustainability	12 Week	3	01 Nov 2025	Prof. Sharmistha Banerjee IIT Guwahati
3	noc25-me123	Solid Mechanics	12 Week	3	26 October 2025	Prof. Ajeet Kumar IIT Delhi
4	noc25_me158	Basics of finite element Analysis-I	8 Week	2	21 Sep 2025	Prof. Nachiketa Tiwari IIT Kanpur
5	noc25_cs104	Python for Data Science	4 weeks	1	20 Sep 2025	Prof. Ragunathan Rengasamy IIT Madras

8/7/2025

HOD MECHANICAL

Jabalpur Engineering College, Jabalpur
Mechanical Engineering Department

List of NPTEL courses for session July - December 2025:

B. Tech VII SEM/ B. Tech (PTDC) VII SEM

S.NO	Course Code	Course Name	Duration	Credit	Exam date	Instructor/ Prof. Incharge
1	noc25_me147	Aircraft Propulsion	12 Week	3	26 Oct 2025	Prof.Vinayak N. Kulkarni IIT Guwahati
2	noc25_me179	Design of mechatronic system	12 Week	3	26 Oct 2025	Prof.Prasanna Gandhi IIT Bombay
3	noc25_me142	Mathematical Modeling of Manufacturing Processes	12 Week	3	01 Nov 2025	Prof.Swarup Bag IIT Guwahati
4	noc25_me153	Advanced Machining Processes	8 Week	2	01 Nov 2025	Prof.Manas Das IIT Guwahati
5	noc25-me163	Biomechanics of Joints and Orthopedic Implants	8 Week	2	02 Nov 2025	Prof. Sanjay Gupta IIT Kharagpur

8/7/2025

HOD MECHANICAL

Jabalpur Engineering College, Jabalpur
Electrical Engineering Department

Notice

All the students of B.Tech (AICTE) are informed that those students who want to avail B.Tech Honours degree, have to score additional 20 credits by SWAYAM/NPTEL/MOOC online course in addition to the curriculum.

Following NPTEL courses are recommended for the students of III, V and VII semesters.

Maximum 8 credits could be earned in each respective semester. Selection of courses must be strictly done among the approved list itself for session July-Dec 2025.

List of NPTEL Course for Session July - Dec 2025

B.Tech/B.Tech (PTDC) III Semester

S. No.	Course Name	SME Name	Institute	Duration	Start date
1	Sustainable Energy Technology	Prof. Sayak Banerjee	IIT Hyderabad	12 Weeks	July 21, 2025
2	C Programming and Assembly Language	Prof. Janakiraman Viraraghavan	IIT Madras	4 Weeks	July 21, 2025
3	Stress Management	Prof. Rajlakshmi Guha	IIT Kharagpur	4 Weeks	July 21, 2025
4	Artificial Intelligence in Industrial and Management Engineering	Prof. Deepu Philip, Prof. Prabal Pratap Singh	IIT Kanpur	8 Weeks	August 18, 2025
5	Problem Solving through Programming in C	Prof. Anupam Basu	IIT Kharagpur	12 Weeks	July 21, 2025
6	Electrochemical and Economic Aspects of Hydrogen Energy	Prof. Pratham Arora, Prof. Amit C. Bhosale	IIT Roorkee	12 Weeks	July 21, 2025
7	Introduction to Semiconductor Devices	Prof. Naresh Kumar Emani	IIT Hyderabad	12 Weeks	July 21, 2025
8	English Language for Competitive Exams	Prof. Aysha Viswamohan	IIT Madras	12 Weeks	July 21, 2025
9	Technical Communication for Engineers	Prof. Arun K. Saraf	IIT Roorkee	4 Weeks	July 21, 2025

B.Tech V Semester

S. No.	Course Name	SME Name	Institute	Duration	Start date
1	Computer Architecture	Prof. Smruti Ranjan Sarangi	IIT Delhi	12 Weeks	July 21, 2025
2	Introduction to Machine Learning	Prof. Balaraman Ravindran	IIT Madras	12 Weeks	July 21, 2025

7/7/2025

S.No.	Course Name	SME Name	Institute	Duration	Start Date
3	Ethical Hacking	Prof. Indranil Sengupta	IIT Kharagpur	12 Weeks	July 21, 2025
4	Data Science for Engineers	Prof. Ragunathan Rengasamy, Prof. Shankar Narasimhan	IIT Madras	8 Weeks	July 21, 2025
5	Design of Electric Motor	Prof. Prathap Reddy	IISc Bangalore	12 Weeks	July 21, 2025
6	Artificial Intelligence and Machine Learning in Materials Engineering	Prof. Krishanu Biswas	IIT Kanpur	12 Weeks	July 21, 2025
7	Advanced Distribution System Analysis and Operation	Prof. N. P. Padhy, Prof. Subho Paul	IIT Roorkee	12 Weeks	July 21, 2025
8	Nanomaterials and their Properties	Prof. Krishanu Biswas	IIT Kanpur	12 Weeks	July 21, 2025

B.Tech VII Semester

S.No.	Course Name	SME Name	Institute	Duration	Start Date
1	Ethical Hacking	Prof. Indranil Sengupta	IIT Kharagpur	12 Weeks	July 21, 2025
2	Advances in UHV Transmission and Distribution	Prof. Subba Reddy B	IISc Bangalore	8 Weeks	July 21, 2025
3	Dc Microgrid and Control System	Prof. Avik Bhattacharya	IIT Roorkee	8 Weeks	July 21, 2025
4	Charging Infrastructure	Prof. Apurv Kumar Yadav	IIT Roorkee	12 Weeks	July 21, 2025
5	Power Electronics Applications in Power Systems	Prof. Sanjib Ganguly	IIT Guwahati	12 Weeks	July 21, 2025
6	Economic Operations and Control of Power Systems	Prof. Gururaj Mirle Vishwanath, Prof. Narayana Prasad Padhy	IIT Kanpur	12 Weeks	July 21, 2025
7	Sensor Technologies: Physics, Fabrication, and Circuits	Prof. Mitradip Bhattacharjee	IISER Bhopal	8 Weeks	July 21, 2025
8	Advance Power Electronics and Control	Prof. Avik Bhattacharya	IIT Roorkee	8 Weeks	July 21, 2025
9	Design of Photovoltaic Systems	Prof. L. Umanand	IISc Bangalore	12 Weeks	July 21, 2025

NPTEL Coordinator
Dr Neha Nema
Assistant Professor (EE)

HOD
Dr Shailja Shukla
EE Dept

7/7/2025

Jabalpur Engineering College, Jabalpur
Department of Electronics & Telecommunication Engineering

All the students of B. Tech. (AICTE) are informed that those students who want to avail B. Tech. Honours degree, they have to score additional 20 credits by SWAYAM/NPTEL/MOOC online courses in addition to the curriculum. Following NPTEL courses are recommended for the students of III, V and VII semesters. Maximum 8 credits could be earned in each respective semester. Selection of courses must be strictly done among the approved list itself for the session July-December 2025.

List of NPTEL Courses for Session: July-December 2025

B. Tech III Semester

S. No.	Course Name	Discipline	Duration	Instructor	Start Date
1	Basic Electrical Circuits	Electrical and Electronics Engineering	12 Weeks	Prof. Gajendranath Chowdary (IIT Hyderabad)	21st July 2025
2	Electronic Systems Design: Hands-on Circuits and PCB Design with CAD Software	Electrical Engineering	12 Weeks	Prof. Ankur Gupta (IIT Delhi)	21st July 2025
3	Introduction to Internet of Things	Computer Science and Engineering	12 Weeks	Prof. Sudip Mishra (IIT Kharagpur)	21st July 2025
4	Data Structures and Algorithms Design	Computer Science and Engineering	12 Weeks	Prof. Nitin Saxena (IIT Kanpur)	21st July 2025
5	Sensor Technologies: Physics, Fabrication, and Circuits	Electrical and Electronics Engineering	8 Weeks	Prof. Mitradip Bhattacharjee (IISER Bhopal)	21st July 2025
6	Introduction to Machine Learning	Computer Science and Engineering	8 Weeks	Prof. Sudeshna Sarkar (IIT Kharagpur)	21st July 2025

B. Tech V Semester

S. No.	Course Name	Discipline	Duration	Instructor	Start Date
1	Fabrication Techniques for MEMs-based Sensors: Clinical Perspective	Electrical Engineering	12 Weeks	Prof. Hardik Jeetendra Pandya (IISc Bangalore)	21st July 2025
2	Simulation of Communication Systems using Matlab	Electrical and Electronics Engineering	12 Weeks	Prof. Ribhu (IIT Guwahati)	21st July 2025
3	C-Based VLSI Design	Computer Science and Engineering	12 Weeks	Prof. Chandan Karfa (IIT Guwahati)	21st July 2025

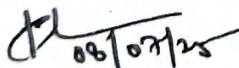| 4 | Artificial Intelligence: Search Methods for Problem Solving | Computer Science and Engineering | 12 Weeks | Prof. Deepak Khemani (IIT Madras) | 21st July 2025 |
| 5 | Advanced Linear Continuous Control Systems: Applications with MATLAB Programming and Simulink | Electrical and Electronics Engineering | 8 Weeks | Prof. Yogesh Vijay Hote (III Roorkee) | 21st July 2025 |
| 6 | Data Science for Engineers | Computer Science and Engineering | 8 Weeks | Prof. Ragunathan Rengasamy, Prof. Shankar Narasimhan (IIT Madras) | 21st July 2025 |

B. Tech VII Semester

S. No.	Course Name	Discipline	Duration	Instructor	Start Date
1	Introduction to Microwave and Optical Metamaterials	Electrical and Electronics Engineering	12 Weeks	Prof. Debabrata Sikdar (IIT Guwahati)	21st July 2025
2	RFIC Design	Electronics Engineering	12 Weeks	Prof. Imon Mondal (IIT Kanpur)	21st July 2025
3	Cloud Computing	Computer Science and Engineering	12 Weeks	Prof. Soumya Kanti Ghosh (IIT Kharagpur)	21st July 2025
4	Cyber Security and Privacy	Computer Science and Engineering	12 Weeks	Prof. Saji K Mathew (IIT Madras)	21st July 2025
5	Low Voltage CMOS Circuit Operation	Electronics and Communication Engineering, Microelectronics and VLSI	8 Weeks	Prof. Anand Bulusu (IIT Roorkee)	21st July 2025
6	Programming with Generative AI	Computer Science and Engineering	8 Weeks	Prof. Viraj Kumar (IISc Bangalore)	18th August 2025

Note: 1. Enrollment for the above courses will be closed on 28th July 2025.

2. Enrollment date for VII Sem Course at S. No. 6 is 18th August 2025. Course start date and Enrollment end date is same for this course.

Copy To: NPTEL course coordinator, JEC, Jabalpur, M.P

Prof-in-charge
(Dr. Kanchan Cecil)
(E & TC Engg.)

H.O.D
(E & TC Engg.)

DEPARTMENT OF INFORMATION TECHNOLOGY
JABALPUR ENGINEERING COLLEGE , JABALPUR
List of NPTEL Courses for the students of B. Tech.(IT) for the session July-December-2025

(Note:-Before joining the course make sure that you have not already earned credits for the same Course in previous semester and after completion of exam submit the soft copy /hard copy of the certificate to the coordinator)

S NO	Course Name	Institute	Duration	Start date
1	Mobile Virtual Reality and Artificial Intelligence	IIT Mandi	4 Weeks	August 18, 2025
2	Introduction to Algebraic Graph Theory	IIT Indore	8 Weeks	August 18, 2025
3	Foundations of Virtual Reality	IIT Madras	12 Weeks	July 21, 2025
4	Artificial Intelligence: Search Methods for Problem Solving	IIT Madras	12 Weeks	July 21, 2025
5	Deep Learning for Computer Vision	IIT Hyderabad	12 Weeks	July 21, 2025
6	Introduction to Quantum Computing: Quantum Algorithms and Qiskit	IBM and IIT Madras	4 Weeks	July 21, 2025
7	Social Network Analysis	IIT Delhi	12 Weeks	July 21, 2025
8	Data Science for Engineers	IIT Madras	8 Weeks	July 21, 2025
9	Social Networks	IIT Ropar	12 Weeks	July 21, 2025
10	Computational Complexity	IIT Hyderabad	12 Weeks	July 21, 2025
11	Cyber Security and Privacy	IIT Madras	12 Weeks	July 21, 2025
12	Privacy and Security in Online Social Media	IIIT Hyderabad	12 Weeks	July 21, 2025
13	Responsible & Safe AI Systems	IIIT Hyderabad	12 Weeks	July 21, 2025
14	Randomized Methods in Complexity	IIT Kanpur	12 Weeks	July 21, 2025
15	Introduction to Computer and Network Performance Analysis using Queuing Systems	IIT Bombay	4 Weeks	August 18, 2025
16	Python for Data Science	IIT Madras	4 Weeks	July 21, 2025
17	Big Data Computing	IIT Patna	8 Weeks	August 18, 2025
18	C-Based VLSI Design	IIT Guwahati	12 Weeks	July 21, 2025
19	Computer Graphics	IIT Guwahati	8 Weeks	July 21, 2025
20	Design & Implementation of Human-Computer Interfaces	IIT Guwahati	12 Weeks	July 21, 2025
21	Programming with Generative AI	IISc Bangalore	8 Weeks	August 18, 2025
22	Statistical Learning for Reliability Analysis	IIT Kharagpur	12 Weeks	July 21, 2025
23	Algorithmic Game Theory	IIT Kharagpur	12 Weeks	July 21, 2025
24	Approximation Algorithm	IIT Kharagpur	12 Weeks	July 21, 2025
25	Hardware Modeling using Verilog	IIT Kharagpur	8 Weeks	July 21, 2025
26	Real-Time Systems	IIT Kharagpur	12 Weeks	July 21, 2025
27	Artificial Intelligence: Concepts and Techniques	IISc Bangalore	12 Weeks	July 21, 2025
28	Scalable Data Science	IIT Gandhinagar	8 Weeks	July 21, 2025
29	Introduction to Large Language Models (LLMs)	IIT Delhi	12 Weeks	July 21, 2025

(Shriram Dhurvey)

NPTEL COORDINATOR

02/07/2025

HEAD OF DEPARTMENT

Department of Computer Science and Engineering
MOOCS/SWAYAM Courses offered for B.Tech. CSE
Session July-Dec 2025
List of courses for 3rd, 5th and 7th Semester students.
(Note: Before joining any course, make sure that you have not already earned credits for the same course in previous semester(s))

S#	Course Name	Mentor Institute	Duration (Weeks)	Start Date
1.	Advanced Distributed Systems	IIT Delhi	12	21/07/2025
2.	Advanced R Programming for Data Analytics in Business	IIT Kanpur	12	21/07/2025
3.	Approximation Algorithm	IIT Kharagpur	12	21/07/2025
4.	C Programming And Assembly Language	IIT Madras	4	21/07/2025
5.	C-Based VLSI Design	IIT Guwahati	12	21/07/2025
6.	Cloud Computing	IIT Kharagpur	12	21/07/2025
7.	Computational Arithmetic - Geometry for Algebraic Curves	IIT Kanpur	12	21/07/2025
8.	Computer Architecture	IIT Delhi	12	21/07/2025
9.	Data Science For Engineers	IIT Madras	8	21/07/2025
10.	Deep Learning for Computer Vision	IIT Hyderabad	12	21/07/2025
11.	Demystifying Networking	IIT Bombay	4	21/07/2025
12.	Design & Implementation of Human-Computer Interfaces	IIT Guwahati	12	21/07/2025
13.	Ethical Hacking	IIT Kharagpur	12	21/07/2025
14.	Foundations of Virtual Reality	IIT Madras, University of Oulu	12	21/07/2025
15.	Getting Started With Competitive Programming	IIT Gandhinagar	12	21/07/2025
16.	Hardware Modeling using Verilog	IIT Kharagpur	8	21/07/2025
17.	Human Computer Interaction (In Hindi)	IIIT Delhi	12	21/07/2025
18.	Introduction to Algebraic Graph Theory	IIT Indore	8	18/08/2025
19.	Introduction to Computer and Network Performance Analysis using Queuing Systems	IIT Bombay	4	18/08/2025
20.	Introduction to Graph Algorithms	IISc Bangalore	8	21/07/2025
21.	Introduction to Industry 4.0 and Industrial Internet of Things	IIT Kharagpur	12	21/07/2025
22.	Introduction to Quantum Computing: Quantum Algorithms and Qiskit	IIT Madras, IBM Research, IBM Systems	4	21/07/2025

No.	Course	Institute		Date
23.	Linear Algebra Through Geometry	IISc Bangalore, NITK Surathkal	12	21/07/2025
24.	Machine Learning for Earth System Sciences	IIT Kharagpur	8	21/07/2025
25.	Mobile Virtual Reality and Artificial Intelligence	IIT Mandi	4	18/08/2025
26.	Multi-Core Computer Architecture	IIT Guwahati	12	21/07/2025
27.	Parameterized Algorithms	IIT Gandhinagar, Institute of Mathematical Science	12	21/07/2025
28.	Practical Cyber Security for Cyber Security Practitioners	IIT Kanpur	12	21/07/2025
29.	Privacy and Security in Online Social Media	IIIT Hyderabad	12	21/07/2025
30.	Programming with Generative AI	IISc Bangalore	8	18/08/2025
31.	Python for Data Science	IIT Madras	4	21/07/2025
32.	Randomized Methods in Complexity	IIT Kanpur	12	21/07/2025
33.	Reinforcement Learning	IIT Madras	12	21/07/2025
34.	Responsible & Safe AI Systems	IIIT Hyderabad, IIT Madras	12	21/07/2025
35.	Social Network Analysis	IIT Delhi	12	21/07/2025
36.	Social Networks	IIT Ropar	12	21/07/2025
37.	Software Conceptual Design	IIT Bombay	4	18/08/2025
38.	Software Testing	IIIT Banglore	12	21/07/2025
39.	Statistical Learning for Reliability Analysis	IIT Kharagpur	12	21/07/2025
40.	The Joy of Computing using Python	IIT Ropar	12	21/07/2025

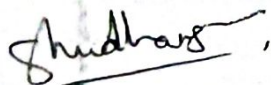08/05/2025

NPTEL Co-ordinator (CSE)

08/05/2025

HOD (CSE)

Department of Mechatronics Engineering
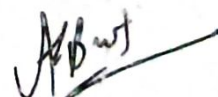## Jabalpur Engineering College, Jabalpur

List of NPTEL Courses for the students of B.Tech(AICTE) -III/V/VII Semester Mechatronics Engineering, (Session July -Dec 2025). Start Date is July 21,2025 and last Date for enrolment is 28/7/2025

S.No	Course ID	Course Name	SME Name	Institute	Duration
1	noc25-me107	Strength of Materials - IITM	Prof. K. Ramesh, Prof. Hariprasad	IIT Madras	12 weeks
2	noc25-me168	Basics of Mechanical Engineering - 3	Prof. Janakranjan Ramkumar, Prof. Amandeep Singh Oberoi	IIT Kanpur	12 weeks
3	noc25-ee125	Digital Circuits	Prof. Santanu Chattopadhyay	IIT Kharagpur	12 weeks
4	noc25-ee160	Fundamentals of Electrical Engineering	Prof. Debapriya Das	IIT Kharagpur	12 Weeks
5	noc25-ee140	Semiconductor Devices and Circuits	Prof. Sanjiv Sambandan	IISc Bangalore	12 Weeks
6	noc25-ee123	Electrical Measurement and Electronic Instruments	Prof. Avishek Chatterjee	IIT Kharagpur	12 Weeks
7	noc25-me102	Thermodynamics	Prof. Anand T. N. C	IIT Palakkad	12 Weeks
8	noc25-cs147	Introduction to Internet of Things	Prof. Sudip Misra	IIT Kharagpur	12 Weeks
9	noc25-ee130	Modern Digital Communication Techniques	Prof. Suvra Sekhar Das	IIT Kharagpur	12 Weeks
10	noc25-ee131	Analog Communication	Prof. Goutam Das	IIT Kharagpur	12 Weeks
11	noc25-ee152	Principles of Digital Communications	Prof. S. N. Merchant	IIT Bombay	12 Weeks
12	noc25-me157	Design Practice - II	Prof. Shantanu Bhattacharya	IIT Kanpur	8 Weeks
13	noc25-ee103	Analog Electronic Circuit	Prof. Shouribrata chatterjee	IIT Delhi	12 Weeks
14	noc25-ee104	Control Engineering	Prof. Ramkrishna Pasumarthy, Prof. Mousumi Mukherjee	IIT Madras, IITEST Shibpur	12 Weeks
15	noc25-me179	Design of Mechatronic Systems	Prof. Prasanna Gandhi	IIT Bombay	12 Weeks
16	noc25-me114	Refrigeration and Air-Conditioning	Prof. Ravi Kumar	IIT Roorkee	8 Weeks
17	noc25-me166	Robotics	Prof. Dk Pratihar	IIT Kharagpur	3 Weeks
18	noc25-ee134	Charging Infrastructure	Prof. Apurv Kumar Yadav	IIT Roorkee	12 Weeks
19	noc25-me105	Mechanics and Control of Robotic Manipulators	Prof. Santhakumar Mohan	IIT Palakkad	3 Weeks
20	noc25-cs159	Artificial Intelligence: Concepts and Techniques	Prof. V. Susheela Devi	IISc Bangalore	12 Weeks

Note-If any student have already successfully completed any SWAYAM/MOOC/NPTEL course in previous semesters, can't opt the same course againfor getting B.Tech honours degree certificate.

NPTEL CO-ORDINATOR
Mechatronics Engineering

HOD
Mechatronics Engg.

NPTEL MOOC Course for BTech Industrial & Production Engineering Session 2025-26
Jabalpur Engineering College, Jabalpur

For 3, 5, 7th Sem July/2025

S. No.	Name of Course	Faculty/Institute Co-Ordinator	Duration	Registration Date
1	Design of Mechatronic Systems	IIT Bombay Prof. Prasanna Gandhi	12 Weeks	2025-05-15 to 2025-07-28
2	Fundamentals Of Artificial Intelligence	IIT Guwahati Prof. Shyamanta M. Hazarika	12 Weeks	2025-05-15 to 2025-07-28
3	Principle of Hydraulic Machines and System Design	IIT Guwahati Prof. Pranab K. Mondal	12 Weeks	2025-05-15 to 2025-07-28
4	Metal Additive Manufacturing	IIT Kanpur Prof. Janakranjan Ramkumar, Prof. Amandeep Singh Oberoi	12 Weeks	2025-05-15 to 2025-07-28
5	Energy conservation and waste heat recovery	IIT Kharagpur	12 Weeks	2025-05-15 to 2025-07-28
6	Microfluidics And Nanofluidics	IIT Kharagpur Prof. Suman Chakraborty	12 Weeks	2025-05-15 to 2025-07-28
7	Learning and Development in Organizations	IIT Guwahati Prof. Abraham Cyril Issac	12 Weeks	2025-05-15 to 2025-07-28
8	E-business	IIT Kharagpur Prof. Mamata Jenamani	12 Weeks	2025-05-15 to 2025-07-28
9	Project Selection and Finance for Professionals	IIT Roorkee Prof. Anil Kumar Sharma	12 Weeks	2025-05-15 to 2025-07-28
10	Instruction for Good Learning	IISc Bangalore, MSRIT, IIIT Banglore By Prof. N J Rao, Prof K Rajanikanth, Prof. R. Chandrashekar	12 Weeks	2025-05-15 to 2025-07-28
11	English Language for Competitive Exams	IIT Madras By Prof. Aysha Viswamohan	12 Weeks	2025-05-15 to 2025-07-28
12	Consumer Psychology	IIT Guwahati By Prof. Naveen Kashyap	08 Weeks	2025-05-15 to 2025-07-28
13	Technologies for Clean and Renewable Energy Production	IIT Roorkee By Prof. P. Mondal	08 Weeks	2025-05-15 to 2025-07-28
14	Business Marketing - Technology Focus	IIT Kanpur By Prof. Jayanta Chatterjee	08 Weeks	2025-05-15 to 2025-08-18
15	Yoga and Positive Psychology for Managing Career and Life	IIT Bombay By Prof. Ashish Pandey	08 Weeks	2025-05-15 to 2025-08-18
16	Selection of Nanomaterials for Energy Harvesting and Storage Application	IIT Roorkee By Prof. Kaushik Pal	04 Weeks	2025-05-15 to 2025-07-28
17	Innovation by Design	IIT Bombay By Prof. B.K. Chakravarthy	04 Weeks	2025-05-15 to 2025-07-28
18	Intelligent Feedback and Control	IIT Bombay By Prof. Leena Vachhani	04 Weeks	2025-05-15 to 2025-08-18
19	Making Learning Engaging through Interactive Games	IIT Madras By Prof. Kartic Vaidyanathan	04 Weeks	2025-05-15 to 2025-07-28
20	Technical Communication for Engineers	IIT Roorkee By Prof. Arun K. Saraf	04 Weeks	2025-05-15 to 2025-07-28

HOD
IP Department

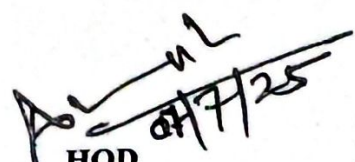# Department of Artificial Intelligence & Data Science, JEC Jabalpur MP
MOOC (NPTEL Courses) for getting B.Tech (Honours Degree)

Following courses are recommended for AI & DS branch students of III, V and VII Sem. Maximum 8 credits per semester and up to ?0 credits till 7th Sem could be earned. Course credits are 12 weeks=4 credits, 8 weeks=3 credits and 4 weeks=2 credits.
Note: Last date to register for the courses is July 28, 2025, by 5:00 PM.

List of NPTEL Courses for Session: July 2025-Dec 2025

S. No	Course Name	Sem	Duration	Institution	Start Date
1	Ethical Hacking	III	12 Weeks	IIT Kharagpur	21/07/ 2025
2	Introduction to Internet of things	III	12 Weeks	IIT Kharagpur	21/07/ 2025
3	Mathematical Foundations for Machine Learning	III	12 Weeks	IISc Bangalore	21/07/ 2025
4	Introduction to Graph Algorithms	III	8 Weeks	IISc Bangalore	21/07/ 2025
5	Introduction to Operating System	III	8 Weeks	IIT Madras	21/07/ 2025
6	Programming, Data Structures and Algorithms using Python	III	8 Weeks	Chennai Mathematical Institute	21/07/ 2025
7	Python for Data Science	III	4 Weeks	IIT Madras	21/07/ 2025
8	Software Conceptual Design	III	4 Weeks	IIT Bombay	18/08/ 2025
9	Introduction to Large Language Models (LLMs)	V	12 Weeks	IIT Delhi	21/07/ 2025
10	Reinforcement Learning	V	12 Weeks	IIT Madras	21/07/ 2025
11	Cyber Security and Privacy	V	12 Weeks	IIT Madras	21/07/ 2025
12	Scalable Data Science	V	8 Weeks	IIT Gadhinagar IIT Kharagpur	21/07/ 2025
13	Theory of Computation	V	8 Weeks	IIT Kanpur	21/07/ 2025
14	Big data Computing	V	8 Weeks	IIT Patna	18/08/ 2025
15	Introduction to Computer and Network Performance Analysis using Queuing System	V	4 Weeks	IIT Bombay	18/08/ 2025
16	Mobile Virtual Reality and Artificial Intelligence	V	4 Weeks	IIT Bombay	18/08/ 2025
17	Design & Implementation of Human-Computer Interfaces	VII	12 Weeks	IIT Guwahati	21/07/ 2025
18	Computer Vision	VII	12 Weeks	IIT Kharagpur	21/07/ 2025
19	Distributed Optimization and Machine Learning	VII	12 Weeks	IIT Bombay	21/07/ 2025
20	Artificial Intelligence for Economics	VII	8 Weeks	IIT Kharagpur	21/07/ 2025
21	Programming with Generative AI	VII	8 Weeks	IISc Bangalore	18/08/ 2025
22	Distributed Systems	VII	8 Weeks	IIT Patna	21/07/ 2025
23	Introduction to Quantum Computing: Quantum Algorithms and Qiskit	VII	4 Weeks	IBM and IIT Madras	21/07/ 2025
24	Demystifying Networking	VII	4 Weeks	IIT Bombay	21/07/ 2025

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