

## JIIT NOIDA

## GUIDELINES FOR MOOC : Even Sem 2026

1. **How to enrol in a course :** Link for enrolment <https://onlinecourses.nptel.ac.in/>
2. **Timelines:**
  - (a) **Start of course:** 19-01-2026
  - (b) **End of course:** 10-04-2026
  - (c) **Exam dates:** Apr 17/18/19/24/25/26, 2026
    - 2 Sessions on each date (9am-12 noon; 2pm-5pm)
    - Open enrolment to the course: 17 NOV 2025
    - Close enrolment to the course: Jan 26 2026 - 5pm
    - Open exam registration form: Dec 13, 2025 - 10am
    - Close exam registration form: Feb 23, 2026 5pm /Feb 27, 2026 5pm
3. **Important Steps:**
  - Learners have to say **YES** to the question 'Are you part of a Local Chapter'
  - Choose the correct college (Institute/University) name from the dropdown. This is very important; else the learner will not be available in your SPOC login
  - Students choose the Profession as '**Student**'
  - Faculty choose the Profession as 'Faculty' (Not Employed)
  - Use the **same email id** for enrolling to courses & exam registration. Assignments submitted through one mail id & exam registered through another mail id will not be accepted

**Note :**

- (a) 8th Sem Students to register for all elective courses through MOOC
- (b) Swapping of electives for MOOC will be done through the webportal ONLY for the registered electives. No application/form to be sent.
- (c) In case of any query, students to connect with their HoDs or MOOC Coordinator, Prof Indira P Sarethy.

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## JAYPEE INSTITUTE OF INFORMATION TECHNOLOGY, NOIDA

### MOOC COURSES FOR EVEN SEM - 2026

JIIT ELECTIVE COURSE NAME	JIIT ELECTIVE COURSE CODE	EQUIVALENT MOOC COURSE NAME	JIIT MOOC COURSE CODE	NPTEL COURSE CODE (add from NPTEL course list)	SEM	PROG	BRANCH	LEVEL (UG/PG)	Elective type (HSS/OE/DE/ Minor etc) and BASKET Number - such as DE-5	CREDITS	NPTEL Course Link
Dept. of Mathematics											
Data Science	25B12MA421	Exploratory Data Analysis for Data Science with R Software (English)	25B14MA412	noc26-cs07	VIII	B.Sc	Computer Science	UG	Minor-8	3	
Blockchain Technologies	25B52CS411	Blockchain and its Applications	23B14CS451	noc26-cs34	VIII	B.Sc	Computer Science	UG/PG	Minor-9	3	
Fuzzy Sets, Logic and Applications	25B12MA222	Software Reliability	25B14MA214	noc26-ma05	IV	B.Tech/B.Tech Integrated	M & C	UG/PG	DE-1	3	
Time Series Analysis and Forecasting	25B12MA223									3	
Applicational Aspects of Differential Equations	20B12MA311	Applied Stochastic Processes	25B14MA315	noc26-ma04	VI	B.Tech/B.Tech Integrated	CSE, IT, ECE, INT CSE, INT ECE	UG	OE-1	3	
Statistics	16B1NMA633						CSE, IT, ECE, BT, INT CSE, INT ECE, INT BT, ECE-CS			3	
Operations Research	18B12MA611						CSE, IT, ECE, INT CSE, INT ECE, ECE-CS			3	

Applied Mathematical Methods	18B12MA612						CSE, IT, ECE, INT CSE, INT ECE			3	
Mathematical Foundations of Geographic Information Systems	19M12MA611						ECE-CS, CSE			3	
Mathematical Foundations of 6G Communication Systems	25B12MA326						ECE-CS, CSE			3	
Numerical Aptitude	16B19MA691	Statistical Inference	25B14MA316	noc26-ma22	VI	B.Tech/B.Tech Integrated	BT, INT BT	UG/PG	Value Added	2	
Statistical Methods for Machine Learning	25B13MA324						CSE, IT, ECE, INT CSE, INT ECE			2	
Introduction to Dynamical Systems	25B13MA325						CSE, IT, ECE, INT CSE, INT ECE			2	
Optimization Techniques	16B1NMA831	Introduction to Queueing Theory	24B14MA415	noc26-ma28	VIII	B.Tech/B.Tech Integrated	CSE, IT, ECE, BT, INT CSE, INT ECE, INT BT	UG/PG	OE-3	3	
Fuzzy Optimization & Decision Making	18B12MA811						CSE, IT, ECE, INT CSE, INT ECE			3	
Optimization Techniques	16B1NMA831						CSE, IT, ECE, BT, INT CSE, INT ECE, INT BT			3	
Multi Attribute Decision Making	20B12MA411						ECE, CSE			3	

Mathematical Structures in High-Performance Computing	25B12MA429						ECE, CSE			3	
Advanced Matrix Theory	20M22MA211	Dynamical System and Control	24M24MA212	noc26-ma66	II	M.Sc	Mathematics	UG/PG	DE-1	3	
Theory of Data Science	21M22MA213	Soft Computing Techniques	24M24MA213	noc26-ma35	IV			PG	DE-VI	3	
Dept. of ECE											
Introduction to Neural Network	25B42EC211	Introduction to Internet of Things	24B14CS485	noc26-cs37	IV	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE1	3	<a href="https://nptel.ac.in/courses/106105166">https://nptel.ac.in/courses/106105166</a>
		Principles of Communication Systems - I	25B14EC211	noc26-ee36	IV	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE1	3	<a href="https://nptel.ac.in/courses/108104091">https://nptel.ac.in/courses/108104091</a>
Foundation of Machine Learning and Pthhon	25B42EC212	Introduction to Internet of Things	24B14CS485	noc26-cs37	IV	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE1	3	<a href="https://nptel.ac.in/courses/106105166">https://nptel.ac.in/courses/106105166</a>
		Principles of Communication Systems - I	25B14EC211	noc26-ee36	IV	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE1	3	<a href="https://nptel.ac.in/courses/108104091">https://nptel.ac.in/courses/108104091</a>
Foundation of Soft Computing	25B42EC214	Introduction to Internet of Things	24B14CS485	noc26-cs37	IV	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE1	3	<a href="https://nptel.ac.in/courses/106105166">https://nptel.ac.in/courses/106105166</a>
		Principles of Communication Systems - I	25B14EC211	noc26-ee36	IV	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE1	3	<a href="https://nptel.ac.in/courses/108104091">https://nptel.ac.in/courses/108104091</a>
Electronic Instrumentation and Measurement	25B12EC211	Introduction to Internet of Things	24B14CS485	noc26-cs37	IV	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE1	3	<a href="https://nptel.ac.in/courses/106105166">https://nptel.ac.in/courses/106105166</a>

Techniques		Principles of Communication Systems - I	25B14EC211	noc26-ee36	IV	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE1	3	<a href="https://nptel.ac.in/courses/108104091">https://nptel.ac.in/courses/108104091</a>
Introduction to Artificial Intelligence with Python	25B32EC211	Introduction to Internet of Things	24B14CS485	noc26-cs37	IV	B.Tech (ACT)	B.Tech (ACT)	UG/PG	DE1	3	<a href="https://nptel.ac.in/courses/106105166">https://nptel.ac.in/courses/106105166</a>
		Principles of Communication Systems - I	25B14EC211	noc26-ee36	IV	B.Tech (ACT)	B.Tech (ACT)	UG/PG	DE1	3	<a href="https://nptel.ac.in/courses/108104091">https://nptel.ac.in/courses/108104091</a>
Mobile Communication	17B11EC731	VLSI Physical Design with Timing Analysis	25B14EC313	noc26-ee90	VI	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE2	3	<a href="https://nptel.ac.in/courses/108107380">https://nptel.ac.in/courses/108107380</a>
		SENSORS AND ACTUATORS	24B14EC411	noc26-ee13	VI	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE2	3	<a href="https://nptel.ac.in/courses/108108147">https://nptel.ac.in/courses/108108147</a>
Machine Learning for Signal Processing	18B13EC314	VLSI Physical Design with Timing Analysis	25B14EC313	noc26-ee90	VI	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE2	3	<a href="https://nptel.ac.in/courses/108107380">https://nptel.ac.in/courses/108107380</a>
		SENSORS AND ACTUATORS	24B14EC411	noc26-ee13	VI	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE2	3	<a href="https://nptel.ac.in/courses/108108147">https://nptel.ac.in/courses/108108147</a>
Cryptography and its application	21B12CS412	VLSI Physical Design with Timing Analysis	25B14EC313	noc26-ee90	VI	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE2	3	<a href="https://nptel.ac.in/courses/108107380">https://nptel.ac.in/courses/108107380</a>
		SENSORS AND ACTUATORS	24B14EC411	noc26-ee13	VI	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE2	3	<a href="https://nptel.ac.in/courses/108108147">https://nptel.ac.in/courses/108108147</a>
Control Systems	15B11EC613	VLSI Physical Design with Timing Analysis	25B14EC313	noc26-ee90	VI	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE2	3	<a href="https://nptel.ac.in/courses/108107380">https://nptel.ac.in/courses/108107380</a>

		SENSORS AND ACTUATORS	24B14EC411	noc26-ee13	VI	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE2	3	<a href="https://nptel.ac.in/courses/108108147">https://nptel.ac.in/courses/108108147</a>
Semiconductor Devices and Circuits	23B12EC311	VLSI Physical Design with Timing Analysis	25B14EC313	noc26-ee90	VI	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE2	3	<a href="https://nptel.ac.in/courses/108107380">https://nptel.ac.in/courses/108107380</a>
		SENSORS AND ACTUATORS	24B14EC411	noc26-ee13	VI	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE2	3	<a href="https://nptel.ac.in/courses/108108147">https://nptel.ac.in/courses/108108147</a>
Nano Manufacturing	25B22EC313	VLSI Physical Design with Timing Analysis	25B14EC313	noc26-ee90	VI	B.Tech EE(VLSI)	B.Tech EE(VLSI)	UG/PG	DE2	3	<a href="https://nptel.ac.in/courses/108107380">https://nptel.ac.in/courses/108107380</a>
		SENSORS AND ACTUATORS	24B14EC411	noc26-ee13	VI	B.Tech EE(VLSI)	B.Tech EE(VLSI)	UG/PG	DE2	3	<a href="https://nptel.ac.in/courses/108108147">https://nptel.ac.in/courses/108108147</a>
Digital Hardware Design	17B1NEC741	Electromagnetic Waves in Guided and Wireless Media	25B14EC312	noc26-ee40	VI	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE-3	3	<a href="https://nptel.ac.in/courses/108104130">https://nptel.ac.in/courses/108104130</a>
		FUZZY SETS, LOGIC AND SYSTEMS & APPLICATIONS	24B14EC412	noc26-ee38	VI	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE-3	3	<a href="https://nptel.ac.in/courses/108104157">https://nptel.ac.in/courses/108104157</a>
Fundamentals of Distributed and cloud computing	21B12CS313	Electromagnetic Waves in Guided and Wireless Media	25B14EC312	noc26-ee40	VI	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE-3	3	<a href="https://nptel.ac.in/courses/108104130">https://nptel.ac.in/courses/108104130</a>
		FUZZY SETS, LOGIC AND SYSTEMS & APPLICATIONS	24B14EC412	noc26-ee38	VI	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE-3	3	<a href="https://nptel.ac.in/courses/108104157">https://nptel.ac.in/courses/108104157</a>
RF and microwave Engineering	17B1NEC734	Electromagnetic Waves in Guided and Wireless Media	25B14EC312	noc26-ee40	VI	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE-3	3	<a href="https://nptel.ac.in/courses/108104130">https://nptel.ac.in/courses/108104130</a>

		FUZZY SETS, LOGIC AND SYSTEMS & APPLICATIONS	24B14EC412	noc26-ee38	VI	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE-3	3	<a href="https://nptel.ac.in/courses/108104157">https://nptel.ac.in/courses/108104157</a>
Introduction to FPGA Design	24B12EC315	Electromagnetic Waves in Guided and Wireless Media	25B14EC312	noc26-ee40	VI	B.Tech ECE, INT M Tech ECE, EE(VLSI)	B.Tech ECE, INT M Tech ECE, EE(VLSI)	UG/PG	DE-3	3	<a href="https://nptel.ac.in/courses/108104130">https://nptel.ac.in/courses/108104130</a>
		FUZZY SETS, LOGIC AND SYSTEMS & APPLICATIONS	24B14EC412	noc26-ee38	VI	B.Tech ECE, INT M Tech ECE, EE(VLSI)	B.Tech ECE, INT M Tech ECE, EE(VLSI)	UG/PG	DE-3	3	<a href="https://nptel.ac.in/courses/108104157">https://nptel.ac.in/courses/108104157</a>
Multimedia Communications	18B12EC412	Semiconductor Devices for Next Generation Field Effect Transistors (More than Moore): A Physics Perspective	25B14EC420	noc26-ee86	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-7	3	<a href="https://nptel.ac.in/courses/108107586">https://nptel.ac.in/courses/108107586</a>
		Biomedical Signal processing	25B14EC411	noc26-ee52	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-7	3	<a href="https://nptel.ac.in/courses/108105101">https://nptel.ac.in/courses/108105101</a>
		OPTICAL WIRELESS COMMUNICATIONS FOR BEYOND 5G NETWORKS AND IOT	24B14EC413	noc26-ee77	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-7	3	<a href="https://nptel.ac.in/courses/108106190">https://nptel.ac.in/courses/108106190</a>
Introduction to IoT	18B12EC411	Semiconductor Devices for Next Generation Field Effect Transistors (More than Moore): A Physics Perspective	25B14EC420	noc26-ee86	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-7	3	<a href="https://nptel.ac.in/courses/108107586">https://nptel.ac.in/courses/108107586</a>
		Biomedical Signal processing	25B14EC411	noc26-ee52	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-7	3	<a href="https://nptel.ac.in/courses/108105101">https://nptel.ac.in/courses/108105101</a>

		OPTICAL WIRELESS COMMUNICATIONS FOR BEYOND 5G NETWORKS AND IOT	24B14EC413	noc26-ee77	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-7	3	<a href="https://nptel.ac.in/courses/108106190">https://nptel.ac.in/courses/108106190</a>
Sonar system and acoustic Imaging	16B1NEC831	Semiconductor Devices for Next Generation Field Effect Transistors (More than Moore): A Physics Perspective	25B14EC420	noc26-ee86	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-7	3	<a href="https://nptel.ac.in/courses/108107586">https://nptel.ac.in/courses/108107586</a>
		Biomedical Signal processing	25B14EC411	noc26-ee52	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-7	3	<a href="https://nptel.ac.in/courses/108105101">https://nptel.ac.in/courses/108105101</a>
		OPTICAL WIRELESS COMMUNICATIONS FOR BEYOND 5G NETWORKS AND IOT	24B14EC413	noc26-ee77	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-7	3	<a href="https://nptel.ac.in/courses/108106190">https://nptel.ac.in/courses/108106190</a>
Natural Language processing with Deep Learning	19B12EC414	Semiconductor Devices for Next Generation Field Effect Transistors (More than Moore): A Physics Perspective	25B14EC420	noc26-ee86	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-7	3	<a href="https://nptel.ac.in/courses/108107586">https://nptel.ac.in/courses/108107586</a>
		Biomedical Signal processing	25B14EC411	noc26-ee52	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-7	3	<a href="https://nptel.ac.in/courses/108105101">https://nptel.ac.in/courses/108105101</a>
		OPTICAL WIRELESS COMMUNICATIONS FOR BEYOND 5G NETWORKS AND IOT	24B14EC413	noc26-ee77	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-7	3	<a href="https://nptel.ac.in/courses/108106190">https://nptel.ac.in/courses/108106190</a>



Cognitive Communication System	17B11EC732	Semiconductor Devices for Next Generation Field Effect Transistors (More than Moore): A Physics Perspective	25B14EC420	noc26-ee86	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-7	3	<a href="https://nptel.ac.in/courses/108107586">https://nptel.ac.in/courses/108107586</a>
		Biomedical Signal processing	25B14EC411	noc26-ee52	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-7	3	<a href="https://nptel.ac.in/courses/108105101">https://nptel.ac.in/courses/108105101</a>
		OPTICAL WIRELESS COMMUNICATIONS FOR BEYOND 5G NETWORKS AND IOT	24B14EC413	noc26-ee77	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-7	3	<a href="https://nptel.ac.in/courses/108106190">https://nptel.ac.in/courses/108106190</a>
Physical Design for submicron technology	24B12EC414	Semiconductor Devices for Next Generation Field Effect Transistors (More than Moore): A Physics Perspective	25B14EC420	noc26-ee86	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-7	3	<a href="https://nptel.ac.in/courses/108107586">https://nptel.ac.in/courses/108107586</a>
		Biomedical Signal processing	25B14EC411	noc26-ee52	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-7	3	<a href="https://nptel.ac.in/courses/108105101">https://nptel.ac.in/courses/108105101</a>
		OPTICAL WIRELESS COMMUNICATIONS FOR BEYOND 5G NETWORKS AND IOT	24B14EC413	noc26-ee77	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-7	3	<a href="https://nptel.ac.in/courses/108106190">https://nptel.ac.in/courses/108106190</a>
Satellite Communication	18B12EC417	Affective Computing	25B14EC421	noc26-cs61	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-8	3	<a href="https://nptel.ac.in/courses/106106244">https://nptel.ac.in/courses/106106244</a>

		INTEGRATED CIRCUITS, MOSFETS, OP-AMPS AND THEIR APPLICATIONS	25B14EC4 12	noc26-ee12	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-8	3	<a href="https://nptel.ac.in/courses/108108111">https://nptel.ac.in/courses/108108111</a>
		RF AND MICROWAVE NETWORKS	24B14EC4 15	noc26-ee62	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-8	3	<a href="https://nptel.ac.in/courses/108105189">https://nptel.ac.in/courses/108105189</a>
Fuzzy Logic and Applications	25B12EC411	Affective Computing	25B14EC4 21	noc26-cs61	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-8	3	<a href="https://nptel.ac.in/courses/106106244">https://nptel.ac.in/courses/106106244</a>
		INTEGRATED CIRCUITS, MOSFETS, OP-AMPS AND THEIR APPLICATIONS	25B14EC4 12	noc26-ee12	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-8	3	<a href="https://nptel.ac.in/courses/108108111">https://nptel.ac.in/courses/108108111</a>
		RF AND MICROWAVE NETWORKS	24B14EC4 15	noc26-ee62	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-8	3	<a href="https://nptel.ac.in/courses/108105189">https://nptel.ac.in/courses/108105189</a>
Image Analysis and Feature Extraction	18B12EC421	Affective Computing	25B14EC4 21	noc26-cs61	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-8	3	<a href="https://nptel.ac.in/courses/106106244">https://nptel.ac.in/courses/106106244</a>
		INTEGRATED CIRCUITS, MOSFETS, OP-AMPS AND THEIR APPLICATIONS	25B14EC4 12	noc26-ee12	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-8	3	<a href="https://nptel.ac.in/courses/108108111">https://nptel.ac.in/courses/108108111</a>
		RF AND MICROWAVE NETWORKS	24B14EC4 15	noc26-ee62	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-8	3	<a href="https://nptel.ac.in/courses/108105189">https://nptel.ac.in/courses/108105189</a>
Fundamental of Electric Vehicle	24B12EC411	Affective Computing	25B14EC4 21	noc26-cs61	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-8	3	<a href="https://nptel.ac.in/courses/106106244">https://nptel.ac.in/courses/106106244</a>

		INTEGRATED CIRCUITS, MOSFETS, OP-AMPS AND THEIR APPLICATIONS	25B14EC412	noc26-ee12	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-8	3	<a href="https://nptel.ac.in/courses/108108111">https://nptel.ac.in/courses/108108111</a>
		RF AND MICROWAVE NETWORKS	24B14EC415	noc26-ee62	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-8	3	<a href="https://nptel.ac.in/courses/108105189">https://nptel.ac.in/courses/108105189</a>
Digital Integrated Circuits in Deep Submicron Technology	19B12EC415	Affective Computing	25B14EC421	noc26-cs61	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-8	3	<a href="https://nptel.ac.in/courses/106106244">https://nptel.ac.in/courses/106106244</a>
		INTEGRATED CIRCUITS, MOSFETS, OP-AMPS AND THEIR APPLICATIONS	25B14EC412	noc26-ee12	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-8	3	<a href="https://nptel.ac.in/courses/108108111">https://nptel.ac.in/courses/108108111</a>
		RF AND MICROWAVE NETWORKS	24B14EC415	noc26-ee62	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-8	3	<a href="https://nptel.ac.in/courses/108105189">https://nptel.ac.in/courses/108105189</a>
Introduction to UAV Design	24B12EC415	Affective Computing	25B14EC421	noc26-cs61	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-8	3	<a href="https://nptel.ac.in/courses/106106244">https://nptel.ac.in/courses/106106244</a>
		INTEGRATED CIRCUITS, MOSFETS, OP-AMPS AND THEIR APPLICATIONS	25B14EC412	noc26-ee12	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-8	3	<a href="https://nptel.ac.in/courses/108108111">https://nptel.ac.in/courses/108108111</a>
		RF AND MICROWAVE NETWORKS	24B14EC415	noc26-ee62	VIII	B.Tech ECE	B.Tech ECE	UG/PG	DE-8	3	<a href="https://nptel.ac.in/courses/108105189">https://nptel.ac.in/courses/108105189</a>
Artificial Intelligence	24B12EC311	Smart Grid: Basics to Advanced Technologies	25B14EC314	noc25_ee79	VI	B.Tech CSE, IT, BT	B.Tech CSE, IT, BT	UG/PG	OE-1	3	

**Dept. of Biotechnology**

Phenomics	21B12BT311	Computational Genomics	25B14BT211	noc25_bt13	IV	B Tech	Biotech	UG	DE-1	3	
Python for biologists	25B12BT211	Interactomics: Basics & Applications	24M24BT213	noc25-bt24	IV	B Tech	Biotech	UG	DE-1	3	
Bioeconomics	16B1NBT631	Enzyme Sciences and Technology	24B14BT314	noc25-bt19	VI	B.Tech.	Biotech	UG	DE-2	3	
Genetic disorders and personalized medicine	16B1NBT634	Comprehensive Molecular Diagnostics and Advanced Gene Expression Analysis	24M24BT221	noc25-ge07	VI	B.Tech.	Biotech	UG	DE-2	3	
Antimicrobial Resistance	16B1NBT632	Environmental Chemistry and Microbiology	24B14BT315	noc25-bt18	VI	B.Tech.	Biotech	UG	DE-3	3	
Biopharmaceutics and Pharmacokinetics	15B1NBT831	Pharmacognosy & Metabolic Engineering	24M24BT214	noc25-bt38	VI	B.Tech.	Biotech	UG	DE-3	3	
BIORISK AND BIOSECURITY	21B13BT311	RNA Biology	24M34BT114	noc25-bt40	VI	B.Tech.	Biotech	UG	Value Added	3	
Scientific writing and Communication	24B13BT311	Science Communication: Research Productivity and Data Analytics using Open Source Software	25B14BT311	noc25_hs70	VI	B.Tech.	Biotech	UG	Value Added	3	

Waste to energy: technologies for circular economy	25B13BT312	Biomass Conversion and Biorefinery	24B14BT4 13	noc25-ch09	VI	B.Tech.	Biotech	UG	Value Added	3	
Radiation Biology and Technological Applications	25B12BT416	Structural Biology	24B14BT4 11	noc25-bt41	VIII	B.Tech.	Biotech	UG	DE-7	3	
Market Resreach in Biosciences	19B12BT411	Marketing Research and Analysis-II	25M44BT1 12	noc25_mg46	VIII	B.Tech.	Biotech	UG	DE-8	3	
Machine Learning Tools in Bioinformatics	18B12BT414	BioInformatics: Algorithms and Applications	23B14BT4 11	noc25-bt06	VIII	B.Tech.	Biotech	UG	OE-3	3	
Nutraceuticals	18M12BT113	Food Science and Technology	24M14BT1 13	noc25-ag04	VIII	Integrated	Biotech	UG	DE-7	3	
IPR in Biotechnology	18M12BT116	Intellectual Property	25M44BT1 11	noc25_hs36	VIII	Integrated	Biotech	UG	DE-8	3	
Agriculture Biotechnology	22M12BT111	Environmental Quality Monitoring & Analysis	24M24BT2 11	noc25-ch24	VIII	Integrated	Biotech	UG	DE-8	3	
IPR in Biotechnology	18M12BT116	Intellectual Property	25M44BT1 11	noc25_hs36	II	M.Sc. Bioinformat ics	Biotech	PG	DE-1	3	
Market Research and Data Analysis	22M22BT211	Marketing Research and Analysis-II	25M44BT1 12	noc25_mg46	II	M.Sc. Bioinformat ics	Biotech	PG	DE-1	3	
Computational Tools for Biological Research	24M22BT211	Computational Systems Biology	24M24BT2 22	noc25-bt14	IV	M.Sc. Env Biotech	Biotech	PG	DE-5	3	

IPR in Biotechnology	18M12BT116	Intellectual Property	25M24BT111	noc25_hs36	II	M.Sc. Microbiology	Biotech	PG	DE-1	3	
Agriculture Biotechnology	22M12BT111	Environmental Quality Monitoring & Analysis	24M24BT211	noc25-ch24	II	M.Sc. Microbiology	Biotech	PG	DE-1	3	
Computational Tools for Biological Research	24M22BT211	Computational Systems Biology	24M24BT222	noc25-bt14	IV	M.Sc. Microbiology	Biotech	PG	DE-V	3	
Nutraceuticals	18M12BT113	Food Science and Technology	24M14BT113	noc25-ag04	II	Mtech	Biotech	PG	Elective-4	3	
IPR in Biotechnology	18M12BT116	Intellectual Property	25M14BT111	noc25_hs36	II	Mtech	Biotech	PG	Elective-5	3	
Agriculture Biotechnology	22M12BT111	Environmental Quality Monitoring & Analysis	24M24BT211	noc25-ch24	II	Mtech	Biotech	PG	Elective-5	3	
Sequence Informatics and Phylogeny	25B11BT212	Matlab Programming for Numerical Computation	25B14BT111	noc25_ch29	I	Minor Degree	Bioinformatics	Minor	Minor	3	
PBL on Bioinformatics	25B17BT213	Bioinformatics: Algorithms and Applications	23B14BT411	noc25-bt06	I	Minor Degree	Bioinformatics	Minor	Minor	3	
Dept. of HSS											
Principles of Management	15B1NHS434	Principles of Management	24B14HS211	noc26-mg72	4th	BTech	All	UG	HSS-1	3	<a href="#">Principles of Management - Course (nptel.ac.in)</a>

Financial Accounting	15B1NHS435	Financial Accounting	25B14HS214	noc26-mg52	4th	BTech	All	UG	HSS-1	3	<a href="https://onlinecourses.nptel.ac.in/noc26_mg52/previeww">https://onlinecourses.nptel.ac.in/noc26_mg52/previeww</a>
Financial Management	16B1NHS433	Financial Management for Managers	25B14HS325	noc26-mg62	5th	BTech	All	UG	HSS-2	3	<a href="https://nptel.ac.in/courses/110107144">nptel.ac.in/courses/110107144</a>
Indian English Literature	25B12HS313	Indian Writing in English	25B14HS326	noc26-hs11	5th	BTech	All	UG	HSS-2	3	<a href="https://onlinecourses.nptel.ac.in/noc26_hs11/preview">https://onlinecourses.nptel.ac.in/noc26_hs11/preview</a>
Global Politics	20B12HS311	Globalization: Theoretical Perspectives	25B14HS322	noc26-hs81	6th	BTech	All	UG	HSS-3	3	<a href="https://nptel.ac.in/courses/110107144">Globalization: Theoretical Perspectives - Course (nptel.ac.in)</a>
Econometric Analysis	19B12HS611	Introduction to Econometrics	25B14HS323	noc26-ec07	6th	BTech	All	UG	HSS-3	3	<a href="https://onlinecourses.nptel.ac.in/noc26_ec07/preview">https://onlinecourses.nptel.ac.in/noc26_ec07/preview</a>
Organisational Behaviour	16B1NHS635	Organizational Behaviour: Individual Dynamics in Organization	25B14HS324	noc26-mg20	6th	BTech	All	UG	HSS-3	3	<a href="https://onlinecourses.nptel.ac.in/noc26_mg20/preview">https://onlinecourses.nptel.ac.in/noc26_mg20/preview</a>
Economy, Policy and Business Environment		Indian Economy: Policy and Environment	25B14HS327	nou26_hs32	6th	BTech	All	UG	OE-1	3	<a href="https://onlinecourses.swayam2.ac.in/nou26_hs32/previeww">https://onlinecourses.swayam2.ac.in/nou26_hs32/previeww</a>
Gender Studies	16B1NHS831	Contextualizing Gender	25B14HS412	noc26-hs113	8th	B.tech	All	UG/PG	OE-3	3	<a href="https://onlinecourses.nptel.ac.in/noc26_hs113/preview">https://onlinecourses.nptel.ac.in/noc26_hs113/preview</a>
Research Methodology in Economics	23M22HS212	Research Methodology for Planning and Architectural Studies	24M24HS218	noc26-ar17	4th	MSc	Economics	PG	DE-6	3	<a href="https://onlinecourses.nptel.ac.in/noc26_ar17/preview">https://onlinecourses.nptel.ac.in/noc26_ar17/preview</a>

Dept. of CSE/IT

Fundamentals of Data Analytics	25B12CS211	Data Mining	19B14CS413	noc26-cs58	4	BTech	CSE/IT	UG	DE 1	2	<a href="https://onlinecourses.nptel.ac.in/noc26_cs58/preview">https://onlinecourses.nptel.ac.in/noc26_cs58/preview</a>
Fundamentals of Mobile Application Development	25B12CS212	Data Mining	19B14CS413	noc26-cs58	4	BTech	CSE/IT	UG	DE 1	2	<a href="https://onlinecourses.nptel.ac.in/noc26_cs58/preview">https://onlinecourses.nptel.ac.in/noc26_cs58/preview</a>
Fundamentals of Smart Systems and IoT	25B12CS213	Data Mining	19B14CS413	noc26-cs58	4	BTech	CSE/IT	UG	DE 1	2	<a href="https://onlinecourses.nptel.ac.in/noc26_cs58/preview">https://onlinecourses.nptel.ac.in/noc26_cs58/preview</a>
Sensor Technology & Android Programming	21B12CS312	Compiler Design	25B14CS316	noc26-cs56	6	BTech	CSE/IT	UG/PG	DE 2	3	<a href="https://onlinecourses.nptel.ac.in/noc26_cs56/preview">https://onlinecourses.nptel.ac.in/noc26_cs56/preview</a>
Fundamentals of Soft Computing	21B12CS319	Neural Networks for Computer Vision and Natural Language Processing	25B14CS323	noc26-cs04	6	BTech	CSE/IT	UG/PG	DE 2	3	<a href="https://onlinecourses.nptel.ac.in/noc26_cs04/preview">https://onlinecourses.nptel.ac.in/noc26_cs04/preview</a>
Introduction to Large Scale Database Systems	21B12CS314	Compiler Design	25B14CS316	noc26-cs56	6	BTech	CSE/IT	UG	DE 2	3	<a href="https://onlinecourses.nptel.ac.in/noc26_cs56/preview">https://onlinecourses.nptel.ac.in/noc26_cs56/preview</a>
Web Technology and Cyber Security	21B12CS315	Compiler Design	25B14CS316	noc26-cs56	6	BTech	CSE/IT	UG	DE 2	3	<a href="https://onlinecourses.nptel.ac.in/noc26_cs56/preview">https://onlinecourses.nptel.ac.in/noc26_cs56/preview</a>
Introduction to Compiler Design	21B12CS316	Compiler Design	25B14CS316	noc26-cs56	6	BTech	CSE/IT	UG	DE 2	3	<a href="https://onlinecourses.nptel.ac.in/noc26_cs56/preview">https://onlinecourses.nptel.ac.in/noc26_cs56/preview</a>
Introduction to Blockchain Technology	21B12CS317	Blockchain and its Applications	23B14CS451	noc26-cs56	6	BTech	CSE/IT	UG/PG	DE 3	3	<a href="https://onlinecourses.nptel.ac.in/noc26_cs34/preview">https://onlinecourses.nptel.ac.in/noc26_cs34/preview</a>



Big Data Ingestion	21B12CS318	Algorithmic Graph Theory and Data Structures	25B14CS324	noc26-cs08	6	BTech	CSE/IT	UG	DE 3	3	<a href="https://onlinecourses.nptel.ac.in/noc26_cs56/preview">https://onlinecourses.nptel.ac.in/noc26_cs56/preview</a>
Open source software development	21B12CS320	Algorithmic Graph Theory and Data Structures	25B14CS324	noc26-cs08	6	BTech	CSE/IT	UG	DE 3	3	<a href="https://onlinecourses.nptel.ac.in/noc26_cs56/preview">https://onlinecourses.nptel.ac.in/noc26_cs56/preview</a>
Fundamentals of Distributed and Cloud Computing	21B12CS313	Cloud Computing	21B14CS511	noc26-cs55	6	BTech	CSE/IT	UG	DE 3	3	<a href="https://onlinecourses.nptel.ac.in/noc26_cs55/preview">https://onlinecourses.nptel.ac.in/noc26_cs55/preview</a>
Concepts of Graph theory	21B12CS321	Algorithmic Graph Theory and Data Structures	25B14CS324	noc26-cs08	6	BTech	CSE/IT	UG	DE 3	3	<a href="https://onlinecourses.nptel.ac.in/noc26_cs08/preview">https://onlinecourses.nptel.ac.in/noc26_cs08/preview</a>
Cyber Security	23B12CS341	Foundations of Cryptography, IIIT Bangalore	20B14CS412	noc26-cs18	6	BTech	BT/ECE/ VLSI/ ACT	UG/PG	OE1	3	<a href="https://onlinecourses.nptel.ac.in/noc26_cs18/preview">https://onlinecourses.nptel.ac.in/noc26_cs18/preview</a>
AI for healthcare and smart systems	22B12CS415	Data Analytics with Python	21B14CS413	noc26-cs86	8	BTech	CSE/IT	UG/PG	DE 7	3	<a href="https://onlinecourses.nptel.ac.in/noc26_cs86/preview">https://onlinecourses.nptel.ac.in/noc26_cs86/preview</a>
Digital Forensics and Cyber Laws	22B12CS412	Cryptography and Network Security	25B14CS481	noc26-cs57	8	BTech	CSE/IT	UG/PG	DE 7	3	<a href="https://onlinecourses.nptel.ac.in/noc26_cs57/preview">https://onlinecourses.nptel.ac.in/noc26_cs57/preview</a>
Data Analytics using R and Python	22B12CS413	Data Analytics with Python	21B14CS413	noc26-cs86	8	BTech	CSE/IT	UG/PG	DE 7	3	<a href="https://onlinecourses.nptel.ac.in/noc26_cs86/preview">https://onlinecourses.nptel.ac.in/noc26_cs86/preview</a>
Agile Software Development Process	22B12CS414	Data Analytics with Python	21B14CS413	noc26-cs86	8	BTech	CSE/IT	UG/PG	DE 7	3	<a href="https://onlinecourses.nptel.ac.in/noc26_cs86/preview">https://onlinecourses.nptel.ac.in/noc26_cs86/preview</a>
Industrial Automation and IoT	22B12CS411	Data Analytics with Python	21B14CS413	noc26-cs86	8	BTech	CSE/IT	UG/PG	DE 7	3	<a href="https://onlinecourses.nptel.ac.in/noc26_cs86/preview">https://onlinecourses.nptel.ac.in/noc26_cs86/preview</a>

Unmanned Aerial Vehicles: Design Principles and Applications	22B12CS418	Introduction to Industry 4.0 and Industrial Internet of Things	25B14CS418	noc26-cs38	8	BTech	CSE/IT	UG/PG	DE 8	3	<a href="https://onlinecourses.nptel.ac.in/noc26_cs38/preview">https://onlinecourses.nptel.ac.in/noc26_cs38/preview</a>
Cryptocurrency Technologies	22B12CS419	Foundations of Cyber Physical Systems	24B14CS453	noc26-cs41	8	BTech	CSE/IT	UG/PG	DE 8	3	<a href="https://onlinecourses.nptel.ac.in/noc26_cs41/preview">https://onlinecourses.nptel.ac.in/noc26_cs41/preview</a>
Software Construction using kubernetes and microservices	22B12CS420	Introduction to Industry 4.0 and Industrial Internet of Things	25B14CS418	noc26-cs38	8	BTech	CSE/IT	UG	DE 8	3	<a href="https://onlinecourses.nptel.ac.in/noc26_cs38/preview">https://onlinecourses.nptel.ac.in/noc26_cs38/preview</a>
Cloud computing Essentials: Azure and AWS	22B12CS422	Introduction to Industry 4.0 and Industrial Internet of Things	25B14CS418	noc26-cs38	8	BTech	CSE/IT	UG	DE 8	3	<a href="https://onlinecourses.nptel.ac.in/noc26_cs38/preview">https://onlinecourses.nptel.ac.in/noc26_cs38/preview</a>
Security of e-Systems and Networks	24M12CS121	Computer Networks and Internet Protocol	24M14CS135	noc26-cs35	2	Mtech /CSE/DD8	CSE/IT	UG/PG	Mtech Elective-III	3	<a href="https://onlinecourses.nptel.ac.in/noc26_cs35/preview">https://onlinecourses.nptel.ac.in/noc26_cs35/preview</a>
Deep Learning	24M12CS122	Foundations of Deep Learning: Concepts and Applications	25M14CS155	noc26-cs66	2	Mtech/CSE /AIDS	CSE/IT	UG/PG	Mtech Elective-III	3	<a href="https://onlinecourses.nptel.ac.in/noc26_cs01/preview">https://onlinecourses.nptel.ac.in/noc26_cs01/preview</a>
Essential Statistics for Data Science	21M21CS123	Introduction to Large Language Models (LLMs)	25M14CS150	noc26-cs88	2	CSE	CSE/IT	UG/PG	Mtech Elective-IV	3	<a href="https://onlinecourses.nptel.ac.in/noc26_cs88/preview">https://onlinecourses.nptel.ac.in/noc26_cs88/preview</a>
Meta Heuristics and Optimization	19M12CS112	Selected Topics in Algorithms	25M14CS151	noc26-cs48	2	CSE/DD8	CSE/IT	PG	Mtech Elective-IV	3	<a href="https://onlinecourses.nptel.ac.in/noc26_cs48/preview">https://onlinecourses.nptel.ac.in/noc26_cs48/preview</a>
Data Visualization	26M12CS122	Business Intelligence & Analytics	25M14CS145	noc26-cs64	2	AIDS	CSE/IT	PG	Mtech Elective-IV	3	<a href="https://onlinecourses.nptel.ac.in/noc26_cs64/preview">https://onlinecourses.nptel.ac.in/noc26_cs64/preview</a>

Data Science & Data Analytics: Theory & Practice	24B11CS243	Introduction to Machine Learning	24B14CS250	noc26-cs74	4	BTech	CSE/IT	UG/PG	MINOR DEGREE/Honours in DA offered by CSE/IT	3	<a href="https://onlinecourses.nptel.ac.in/noc26_cs74/preview">https://onlinecourses.nptel.ac.in/noc26_cs74/preview</a>
Artificial Intelligence and Machine Learning: Theory & Practice	24B11CS242	Introduction to Machine Learning	24B14CS250	noc26-cs74	4	BTech	CSE/IT	UG/PG	MINOR DEGREE/Honours in AI&ML offered by CSE/IT	3	<a href="https://onlinecourses.nptel.ac.in/noc26_cs74/preview">https://onlinecourses.nptel.ac.in/noc26_cs74/preview</a>
Fundamentals of Natural Language Processing	25B11CS361	Natural Language Processing	24B14CS460	noc26-cs45	6	BTech	CSE/IT	UG/PG	MINOR DEGREE/Honours in AIML/DA Specialization offered by CSE/IT	3	<a href="https://onlinecourses.nptel.ac.in/noc26_cs45/preview">https://onlinecourses.nptel.ac.in/noc26_cs45/preview</a>

**Dept. of PMSE**

Plasma Physics	18B12PH814	Plasma Physics and Applications	24B14PH411	noc26-ph32	8	B.Tech	CSE,IT,ECE,INT CSE, INTECE	UG	OE	3	<a href="https://nptel.ac.in/courses/115107447">https://nptel.ac.in/courses/115107447</a>
Solid State Electronic Devices	16B1NPH632	Fundamentals of semiconductor devices	24B14PH314	noc26-ee14	6	B.Tech	CSE,IT,ECE,INT CSE, INTECE	UG	OE	3	<a href="https://nptel.ac.in/courses/108108122">https://nptel.ac.in/courses/108108122</a>
Fiber Optics	19M21PH217	Optical Fiber Sensors	24M24PH211	noc26-ee76	4	MSc	MSc Phy, PhD	PG	DE	3	<a href="https://nptel.ac.in/courses/108106173">https://nptel.ac.in/courses/108106173</a>
Advanced Condensed Matter Physics-2	19M21PH216	Diffusion in Solids	25M24PH212	noc26-mm41	4	MSc	MSc Phy, PhD	PG	DE	3	<a href="https://nptel.ac.in/courses/113106635">https://nptel.ac.in/courses/113106635</a>

**Dept. of Computer Application**

***Introduction to Blockchain	25B12CA323	Blockchain and its Applications	25B14CA3 23	noc26-cs34	VI	BCA	Computer Application	UG/PG	Major Choice	4	
***Cloud Computing	25B12CA324	Cloud Computing	25B14CA3 24	noc26-cs55	VI	BCA	Computer Application	UG	Major Choice	4	
Agile Software Development	25B12CA325	Software Reliability	25B14CA3 25	noc26_ma05	VI	BCA	Computer Application	UG/PG	Major Choice	4	
IoT Analytics	25B12CA326	Introduction To Internet Of Things	25B14CA3 26	noc26-cs37	VI	BCA	Computer Application	UG/PG	Major Choice	3	
Fuzzy Logic and Neural Network	25B12CA327	Fuzzy Sets, Logic and Systems & Applications	25B14CA3 27	noc26-ee38	VI	BCA	Computer Application	UG/PG	Major Choice-V	2	
Computer and Network Security	25B12CA328	Foundations of Cryptography, IIIT Bangalore	25B14CA3 28	noc26-cs18	VI	BCA	Computer Application	UG/PG	Major Choice-V	2	
Fuzzy Logic and Neural Network	25B16CA327	Python for Data Science	25B14CA3 29	noc26-cs80	VI	BCA	Computer Application	UG	Major Choice-V Lab	1	
Computer and Network Security	25B16CA328	Data Mining for Decision Making	25B14CA3 30	noc26-cs14	VI	BCA	Computer Application	UG/PG	Major Choice-V Lab	1	
Fundamentals of Artificial Intelligence	23B12CA211	Artificial Intelligence: Knowledge Representation And Reasoning	25B14CA1 11	noc26-cs63	IV	BCA	Computer Application	UG/PG	Major Choice-I	3	
Fundamentals of Machine Learning	23B12CA216	Introduction to Machine Learning	25B14CA1 16	noc26-cs74	IV	BCA	Computer Application	UG/PG	Major Choice-I	3	
Introduction to Big Data and Data Analytics	23B12CA213	Data Analytics with Python	25B14CA1 12	noc26-cs86	IV	BCA	Computer Application	UG/PG	Major Choice-II	3	
Introduction to Cryptography and its Applications	23B12CA215	Foundations of Cryptography, IIIT Bangalore	25B14CA2 15	noc26-cs18	IV	BCA	Computer Application	UG/PG	Major Choice-II	3	
Full Stack Developer-II(Web development)	25B12CA320	Programming In Java	25B14CA3 20	noc26-cs36	IV	BCA	Computer Application	UG	Minor Choices-II	2	
Full Stack Developer-II(Mobile	25B12CA322	Programming in Modern C++	25B14CA3 22	noc26-cs52	IV	BCA	Computer Application	UG/PG	Minor Choices-II	2	

development)											
Cloud Computing & Deployment	24M12CA111	Advanced Computer Networks	25M14CA112	noc26-cs60	II	MCA	Computer Application	UG/PG	Elective-I	3	
RESTful API Design and Implementation	25M12CA112	Computer Networks And Internet Protocol	25M14CA113	noc26-cs35	II	MCA	Computer Application	UG/PG	Elective-I	3	
Cyber Security	25M32CA111	Foundations of Cryptography, IIIT Bangalore	25M14CA114	noc26-cs18	II	MSc.(DBA)	Computer Application	UG/PG	Elective-I	4	
ERP Systems and SAP Fundamentals	25M32CA112	Reinforcement Learning	25M14CA115	noc26-cs81	II	MSc.(DBA)	Computer Application	UG/PG	Elective-I	3	
HR Analytics	25M32CA130	Advances in Strategic Human Resource Management (HRM)	25M34CA130	noc26-mg15	II	MSc.(DBA)	Computer Application	UG/PG	Elective-II	3	
Financial Modelling	25M32CA131	Advanced Financial Analytics	25M34CA131	noc26-mg22	II	MSc.(DBA)	Computer Application	UG/PG	Elective-II	3	
Cloud Computing Technologies	25M22CA111	Business Intelligence & Analytics	25M14CA112	noc26-cs64	II	MSc.(AI/ML)	Computer Application	PG	PEC-II	3	
CyberSecurity	25M32CA111	Computer Networks And Internet Protocol	25M34CA111	noc26-cs35	II	MSc.(CS)	Computer Application	UG/PG	PEC-III	3	
<b>JBS</b>											
Services Marketing	24M12BMM16	Strategic Services Marketing	24M14BMM16	noc26_mg78	III	MBA	Marketing	PG	DE	3	
Marketing Analytics	24M12BMM24	Metrics and Analytics of Marketing	24M14BMM24	noc26-mg03	III	MBA	Marketing	PG	DE	3	

Talent Management	20M12BHR14	Talent Acquisition and Management	20M14BHR14	noc26-mg60	III	MBA	HR	PG	DE	3	
Financial Statement Analysis and Business Valuation	24M12BAF12	Financial Statement Analysis and Reporting	24M14BAF12	noc26-mg63	III	MBA	Finance	PG	DE	3	
Supply Chain Analytics	24M12BOM23	Modelling and Analytics for Supply Chain Management	24M14BOM23	noc26-mg35	III	MBA	Operations Management	PG	DE	3	
Advertising Management	23B12BMM13	Advertising & Promotions Management	23B14BMM13	noc26-mg28	VI	BBA	Marketing	UG	Elective-MKT	4	
Understanding Organization Change and Development	20B12BHR19	Organizational Design Change and Transformation	20B14BHR19	noc26-mg36	VI	BBA	HR	UG	Elective-HR	4	
Business Models of Start Ups	20B12BFB12	Business Development: From Start to Scale	20B14BFB12	noc26-mg50	VI	BBA	Family Business	UG	Elective-FBE	4	
Financial Derivative and Risk Management	20B12BAF13	Financial Derivatives & Risk Management	20B14BAF13	noc26-mg73	VI	BBA	Finance	UG	Elective-FIN	4	

### MOOC COURSES FOR BACKLOG OF ODD SEM

JIIT ELECTIVE COURSE NAME	JIIT ELECTIVE COURSE CODE	EQUIVALENT MOOC COURSE NAME	JIIT MOOC COURSE CODE	NPTEL COURSE CODE (add from NPTEL course list)	SEM	PROG	BRANCH	LEVEL (UG/PG)	Elective type (HSS/OE/DE/Minor etc) and BASKET Number - such as DE-5	CREDITS		
Dept. of Mathematics												
Fluid Dynamics	22M22MA211	Algebraic Number Theory	25M14MA217	noc26-ma15	III	MSc	Maths	PG	DE-II	3		
Fuzzy Sets and Applications	20M22MA213						Maths	PG	DE-III	3		
Graph Theory	21M22MA215						Maths	PG	DE-IV	3		
Theory of Computation	21M22MA217						Maths	PG	DE-V	3		
DISCRETE MATHEMATICS	16B1NMA531	Ordinary and Partial Differential Equations and Applications	25B14MA318	noc26-ma65	V	BTech	B.Tech ECE, INTG ECE, BT, INTG BT	UG	Science Elective	3		
MATRIX COMPUTATIONS	16B1NMA533					BTech	B.Tech CSE, IT, ECE, INTG CSE, INTG ECE, BT, INTG BT, ECE-CS	UG	Science Elective	3		
THEORY OF NUMBERS	16B1NMA731					BTech	B.Tech CSE, IT, ECE, INTG	UG	Science Elective	3		

							CSE, INTG ECE					
BASIC NUMERICAL METHODS	17B1NMA531					BTech	B.Tech CSE, IT, ECE, INTG CSE, INTG ECE, BT, INTG BT, ECE-CS	UG	Science Elective	3		
Logical Reasoning and Inequalities	18B12MA312					B. Tech.	ECE-CS, CSE	UG	SE-1	3		
Statistical Information Theory with Applications	17B1NMA533					B. Tech.	ECE-CS, CSE	UG	SE-1	3		
Applied Linear Algebra	17B1NMA731	Applied Linear Algebra in AI and ML	24B14MA317	noc26- ma38	VII	BTech	B.Tech CSE, IT, ECE, INTG CSE, INTG ECE	UG/PG	Open Elective	3		
Applied Numerical Methods	17B1NMA732					BTech	B.Tech CSE, IT, ECE, INTG CSE, INTG ECE, BT, INTG BT	UG/PG	Open Elective	3		
Advanced Statistical Methods	22B12MA411					BTech	B.Tech CSE, IT, ECE, INTG CSE, INTG ECE	UG/PG	Open Elective	3		



Generalized fuzzy set theory with Applications	19B12MA412					B. Tech.	ECE, CSE	UG/PG	OE-2	3		
Geometric algebra for computer graphics	22B12MA412					B. Tech.	ECE, CSE	UG/PG	OE-2	3		
ADVANCED OPERATIONS RESEARCH	18M12MA111	Constrained and Unconstrained Optimization	25M14MA219	noc26-ma46	III	MTech	All	PG	Open Elective	3		

**Dept. of ECE**

Microprocessors and Microcontrollers	15B11EC313	Introduction to Internet of Things	24B14CS485	noc26-cs37	IV	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE1	3	68%	<a href="https://nptel.ac.in/courses/106105166">https://nptel.ac.in/courses/106105166</a>
		Principles of Communication Systems - I	25B14EC211	noc26-ee36	IV	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE1	3	50%	<a href="https://nptel.ac.in/courses/108104091">https://nptel.ac.in/courses/108104091</a>
Information Theory and Applications	17B1NEC735	Introduction to Internet of Things	24B14CS485	noc26-cs37	IV,V	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE1	3	68%	<a href="https://nptel.ac.in/courses/106105166">https://nptel.ac.in/courses/106105166</a>

		Principles of Communication Systems - I	25B14EC211	noc26-ee36	IV,V	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE1	3	50%	<a href="https://nptel.ac.in/courses/108104091">https://nptel.ac.in/courses/108104091</a>
Introduction to Digital Image and Video Processing	20B12EC211	Introduction to Internet of Things	24B14CS485	noc26-cs37	IV,V	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE1	3	68%	<a href="https://nptel.ac.in/courses/106105166">https://nptel.ac.in/courses/106105166</a>
		Principles of Communication Systems - I	25B14EC211	noc26-ee36	IV,V	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE1	3	50%	<a href="https://nptel.ac.in/courses/108104091">https://nptel.ac.in/courses/108104091</a>
FUNDAMENTALS OF EMBEDDED SYSTEMS	15B1NEC733	Deep Learning for Natural Language Processing	25B14EC419	noc26-cs33	VII	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE-4	3	60%	<a href="https://nptel.ac.in/courses/108105572">https://nptel.ac.in/courses/108105572</a>
		Digital VLSI Testing	24B14EC423	noc26-ee45	VII	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE-4	3	55%	<a href="https://nptel.ac.in/courses/117105137">https://nptel.ac.in/courses/117105137</a>
INTRODUCTION TO DATA ANALYSIS WITH R	17B1NEC742	Deep Learning for Natural Language Processing	25B14EC419	noc26-cs33	VII	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE-4	3	60%	<a href="https://nptel.ac.in/courses/108105572">https://nptel.ac.in/courses/108105572</a>

		Digital VLSI Testing	24B14EC423	noc26-ee45	VII	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE-4	3	55%	<a href="https://nptel.ac.in/courses/117105137">https://nptel.ac.in/courses/117105137</a>
OPTICAL COMMUNICATION	17B11EC733	Deep Learning for Natural Language Processing	25B14EC419	noc26-cs33	VII	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE-4	3	60%	<a href="https://nptel.ac.in/courses/108105572">https://nptel.ac.in/courses/108105572</a>
		Digital VLSI Testing	24B14EC423	noc26-ee45	VII	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE-4	3	55%	<a href="https://nptel.ac.in/courses/117105137">https://nptel.ac.in/courses/117105137</a>
DEEP LEARNING FOR MULTIMEDIA	19B12EC416	Deep Learning for Natural Language Processing	25B14EC419	noc26-cs33	VII	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE-4	3	60%	<a href="https://nptel.ac.in/courses/108105572">https://nptel.ac.in/courses/108105572</a>
		Digital VLSI Testing	24B14EC423	noc26-ee45	VII	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE-4	3	55%	<a href="https://nptel.ac.in/courses/117105137">https://nptel.ac.in/courses/117105137</a>
Introduction to VLSI Fabrication Technology	23B12EC312	Deep Learning for Natural Language Processing	25B14EC419	noc26-cs33	VII	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE-4	3	60%	<a href="https://nptel.ac.in/courses/108105572">https://nptel.ac.in/courses/108105572</a>

		Digital VLSI Testing	24B14EC423	noc26-ee45	VII	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE-4	3	55%	<a href="https://nptel.ac.in/courses/117105137">https://nptel.ac.in/courses/117105137</a>
SOFT COMPUTING IN ELECTRONICS	15B1NEC731	Fundamentals of MIMO Wireless Communication	25B14EC418	noc26-ee46	VII	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE-5	3	83%	<a href="https://nptel.ac.in/courses/117105132">https://nptel.ac.in/courses/117105132</a>
BASICS OF ANTENNA AND WAVE PROPAGATION	20B12EC413	Fundamentals of MIMO Wireless Communication	25B14EC418	noc26-ee46	VII	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE-5	3	83%	<a href="https://nptel.ac.in/courses/117105132">https://nptel.ac.in/courses/117105132</a>
NETWORK SECURITY	20B12EC415	Fundamentals of MIMO Wireless Communication	25B14EC418	noc26-ee46	VII	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE-5	3	83%	<a href="https://nptel.ac.in/courses/117105132">https://nptel.ac.in/courses/117105132</a>
Low Power CMOS VLSI Circuit Design	22B12EC413	Fundamentals of MIMO Wireless Communication	25B14EC418	noc26-ee46	VII	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE-5	3	83%	<a href="https://nptel.ac.in/courses/117105132">https://nptel.ac.in/courses/117105132</a>
MIMO-OFDM APPLICATIONS TO WIRELESS COMMUNICATIONS	16B1NEC832	Multirate DSP	25B14EC417	noc26-ee75	VII	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE-6	3	60%	<a href="https://nptel.ac.in/courses/108106136">https://nptel.ac.in/courses/108106136</a>

ESSENTIALS OF VLSI TESTING	17B1NEC736	Multirate DSP	25B14EC417	noc26-ee75	VII	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE-6	3	60%	<a href="https://nptel.ac.in/courses/108106136">https://nptel.ac.in/courses/108106136</a>
DIGITAL CONTROL SYSTEM	18B12EC413	Multirate DSP	25B14EC417	noc26-ee75	VII	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE-6	3	60%	<a href="https://nptel.ac.in/courses/108106136">https://nptel.ac.in/courses/108106136</a>
MACHINE LEARNING AND STATISTICAL PATTERN RECOGNITION	19B12EC417	Multirate DSP	25B14EC417	noc26-ee75	VII	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE-6	3	60%	<a href="https://nptel.ac.in/courses/108106136">https://nptel.ac.in/courses/108106136</a>
5G Wireless Communication Systems	22B12EC415	Multirate DSP	25B14EC417	noc26-ee75	VII	B.Tech ECE, INT M Tech ECE	B.Tech ECE, INT M Tech ECE	UG/PG	DE-6	3	60%	<a href="https://nptel.ac.in/courses/108106136">https://nptel.ac.in/courses/108106136</a>

**Dept. of Biotechnology**

MOLECULAR DIAGNOSTICS	17B1NBT735	Comprehensive Molecular Diagnostics and Advanced Gene Expression Analysis	24M24BT221	noc25-ge07	VII	Btech	Biotech	UG	DE-6	3		
ENZYMES IN FOOD PROCESSING	17B1NBT737	Food Science and Technology	24M14BT113	noc25-ag04	VII	Btech	Biotech	UG	DE-5	3		

STEM CELLS AND HEALTHCAR E	17B1NBT734	Pharmacog nosy & Metabolic Engineerin g	24M24BT214	noc25- bt38	VII	Btech	Biotech	UG	DE-4	3		
Dept. of CSE/IT												
Fundamentals of Machine learning	20B12CS331	Programmi ng In Java	20B14CS313	noc26- cs36	6	BTech	CSE/IT	UG/PG	DE-1	3		<a href="https://onlin&lt;br/&gt;ecour&lt;br/&gt;ses.n&lt;br/&gt;ptel.a&lt;br/&gt;c.in/n&lt;br/&gt;oc26_&lt;br/&gt;cs38/&lt;br/&gt;previe&lt;br/&gt;w">https:/ /onlin ecour ses.n ptel.a c.in/n oc26_ cs38/ previe w</a>
Fundamentals of Computer security	20B12CS332	Programmi ng In Java	20B14CS313	noc26- cs36	6	BTech	CSE/IT	UG/PG	DE-1	3		<a href="https://onlin&lt;br/&gt;ecour&lt;br/&gt;ses.n&lt;br/&gt;ptel.a&lt;br/&gt;c.in/n&lt;br/&gt;oc26_&lt;br/&gt;cs38/&lt;br/&gt;previe&lt;br/&gt;w">https:/ /onlin ecour ses.n ptel.a c.in/n oc26_ cs38/ previe w</a>
Introduction to Big data and Data Analytics	20B12CS333	Programmi ng In Java	20B14CS313	noc26- cs36	6	BTech	CSE/IT	UG/PG	DE-1	3		<a href="https://onlin&lt;br/&gt;ecour&lt;br/&gt;ses.n&lt;br/&gt;ptel.a&lt;br/&gt;c.in/n&lt;br/&gt;oc26_&lt;br/&gt;cs38/&lt;br/&gt;previe&lt;br/&gt;w">https:/ /onlin ecour ses.n ptel.a c.in/n oc26_ cs38/ previe w</a>
Object Oriented Analysis and Design using Java	20B12CS334	Programmi ng In Java	20B14CS313	noc26- cs36	6	BTech	CSE/IT	UG/PG	DE-1	3		<a href="https://onlin&lt;br/&gt;ecour&lt;br/&gt;ses.n&lt;br/&gt;ptel.a&lt;br/&gt;c.in/n&lt;br/&gt;oc26_">https:/ /onlin ecour ses.n ptel.a c.in/n oc26_</a>

												cs38/ previe w
Image Processing and Computer Vision	20B12CS335	Programmi ng In Java	20B14CS313	noc26- cs36	6	BTech	CSE/IT	UG/PG	DE-1	3		<a href="https://onlinecourses.nptel.ac.in/noc26_cs38/preview">https://onlinecourses.nptel.ac.in/noc26_cs38/previe w</a>
Automata Theory and its applications	20B12CS336	Programmi ng In Java	20B14CS313	noc26- cs36	6	BTech	CSE/IT	UG/PG	DE-1	3		<a href="https://onlinecourses.nptel.ac.in/noc26_cs38/preview">https://onlinecourses.nptel.ac.in/noc26_cs38/previe w</a>
Big Data with Hadoop and Spark	21B12CS411	Deep Learning - IIT Ropar	24B14CS484	noc26- cs66	7	BTech	CSE/IT	UG/PG	DE-4	3		<a href="https://onlinecourses.nptel.ac.in/noc26_cs66/preview">https://onlinecourses.nptel.ac.in/noc26_cs66/previe w</a>
Introduction to Deep Learning	18B12CS428	Deep Learning - IIT Ropar	24B14CS484	noc26- cs66	7	BTech	CSE/IT	UG/PG	DE-4	3		<a href="https://onlinecourses.nptel.ac.in/noc26_cs66/preview">https://onlinecourses.nptel.ac.in/noc26_cs66/previe w</a>

Cryptography and its Applications	21B12CS412	Deep Learning - IIT Ropar	24B14CS484	noc26-cs66	7	BTech	CSE/IT	UG/PG	DE-4	3		<a href="https://onlinecourses.nptel.ac.in/noc26_cs66/preview">https://onlinecourses.nptel.ac.in/noc26_cs66/preview</a>
Information Retrieval and Semantic Web	16B1NCI648	Introduction to Information Retrieval	25B14CS411	noc26-cs13	7	BTech	CSE/IT	UG/PG	DE-4	3		<a href="https://onlinecourses.nptel.ac.in/noc26_cs13/preview">https://onlinecourses.nptel.ac.in/noc26_cs13/preview</a>
Smart Systems and IOT	21B12CS414	Introduction To Internet Of Things	24B14CS485	noc26-cs37	7	BTech	CSE/IT	UG/PG	DE-4	3		<a href="https://onlinecourses.nptel.ac.in/noc26_cs37/preview">https://onlinecourses.nptel.ac.in/noc26_cs37/preview</a>
IoT Analytics	19B12CS426	Mathematical Foundations of Machine Learning	25B14CS418	noc26-cs02	7	BTech	CSE/IT	UG/PG	DE-5	3		<a href="https://onlinecourses.nptel.ac.in/noc26_cs02/preview">https://onlinecourses.nptel.ac.in/noc26_cs02/preview</a>
Machine Learning and Big Data	21B12CS417	Mathematical Foundations of	25B14CS418	noc26-cs02	7	BTech	CSE/IT	UG/PG	DE-5	3		<a href="https://onlinecourses.nptel.ac.in/noc26_cs02/preview">https://onlinecourses.nptel.ac.in/noc26_cs02/preview</a>



		Machine Learning										ptel.a c.in/n oc26_ cs02/ previe w
Secure Design of Software Systems	21B12CS415	Secure Computation: Part I	25B14CS412	noc26-cs17	7	BTech	CSE/IT	UG/PG	DE-5	3		<a href="https://onlinecourses.nptel.ac.in/noc26-cs17/preview">https://onlinecourses.nptel.ac.in/noc26-cs17/preview</a>
Computing for Data Science	19B12CS423	Mathematical Foundations of Machine Learning	25B14CS418	noc26-cs02	7	BTech	CSE/IT	UG/PG	DE-5	3		<a href="https://onlinecourses.nptel.ac.in/noc26-cs02/preview">https://onlinecourses.nptel.ac.in/noc26-cs02/preview</a>
Introduction to DevOps	19B12CS427	Mathematical Foundations of Machine Learning	25B14CS418	noc26-cs02	7	BTech	CSE/IT	UG/PG	DE-5	3		<a href="https://onlinecourses.nptel.ac.in/noc26-cs02/preview">https://onlinecourses.nptel.ac.in/noc26-cs02/preview</a>
Machine Learning and Natural Language Processing	17B1NCI731	Social Networks	18B14CS411	noc26-cs82	7	BTech	CSE/IT	UG	DE-6	3		<a href="https://onlinecourses.nptel.ac.in/noc26-cs82/">https://onlinecourses.nptel.ac.in/noc26-cs82/</a>

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Social Network Analysis	15B1NCI732	Social Networks	18B14CS411	noc26- cs82	7	BTech	CSE/IT	UG	DE-6	3		<a href="https://onlin&lt;br/&gt;ecour&lt;br/&gt;ses.n&lt;br/&gt;ptel.a&lt;br/&gt;c.in/n&lt;br/&gt;oc26_&lt;br/&gt;cs82/&lt;br/&gt;previe&lt;br/&gt;w">https:/ /onlin ecour ses.n ptel.a c.in/n oc26_ cs82/ previe w</a>
Ethical Hacking and Prevention	21B12CS418	Social Networks	18B14CS411	noc26- cs82	7	BTech	CSE/IT	UG	DE-6	3		<a href="https://onlin&lt;br/&gt;ecour&lt;br/&gt;ses.n&lt;br/&gt;ptel.a&lt;br/&gt;c.in/n&lt;br/&gt;oc26_&lt;br/&gt;cs82/&lt;br/&gt;previe&lt;br/&gt;w">https:/ /onlin ecour ses.n ptel.a c.in/n oc26_ cs82/ previe w</a>
Advanced Blockchain : A game theoretic view	19B12CS425	Blockchain and its Application s	23B14CS451	noc26- cs34	7	BTech	CSE/IT	UG/PG	DE-6	3		<a href="https://onlin&lt;br/&gt;ecour&lt;br/&gt;ses.n&lt;br/&gt;ptel.a&lt;br/&gt;c.in/n&lt;br/&gt;oc26_&lt;br/&gt;cs34/&lt;br/&gt;previe&lt;br/&gt;w">https:/ /onlin ecour ses.n ptel.a c.in/n oc26_ cs34/ previe w</a>
Fog and Edge Computing	21B12CS413	Blockchain and its Application s	23B14CS451	noc26- cs34	7	BTech	CSE/IT	UG/PG	DE-6	3		<a href="https://onlin&lt;br/&gt;ecour&lt;br/&gt;ses.n&lt;br/&gt;ptel.a&lt;br/&gt;c.in/n&lt;br/&gt;oc26_&lt;br/&gt;cs34/&lt;br/&gt;previe&lt;br/&gt;w">https:/ /onlin ecour ses.n ptel.a c.in/n oc26_ cs34/ previe w</a>

**Dept. of PMSE**

Introduction to Quantum Information Processing	17B1NPH731	Quantum Computation and Quantum Information	25B14PH412	noc26-ph02	7	B.Tech	CSE,IT,ECE,INT CSE, INT ECE	UG	OE	3	None	<a href="https://nptel.ac.in/courses/115106925">https://nptel.ac.in/courses/115106925</a>
Laser Technology and Applications	16B1NPH533	An Introduction to Lasers and Laser Systems	25B14PH315	noc26-ph07	5	B.Tech	CSE,IT,ECE,INT CSE, INT ECE	UG	OE	3	None	<a href="https://nptel.ac.in/courses/115101639">https://nptel.ac.in/courses/115101639</a>