

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 | |

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|--|------------|---------------------------------|------------|------------|------|--------------------------|--|-------|-------------|---|--|
| 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 | |

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| Mathematical Structures in High-Performance Computing | 25B12MA429 | | | | | ECE, CSE | | | 3 | |
| Advanced Matrix Theory | 20M22MA211 | Dynamical System and Control | 24M24MA 212 | noc26-ma66 | II | M.Sc | Mathematics | UG/PG | DE-1 | 3 |
| Theory of Data Science | 21M22MA213 | Soft Computing Techniques | 24M24MA 213 | noc26-ma35 | IV | | | PG | DE-VI | 3 |

Dept. of ECE

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|--|------------|---|-------------|------------|----|----------------------------|----------------------------|-------|-----|---|---|
| Introduction to Neural Network | 25B42EC211 | Introduction to Internet of Things | 24B14CS4 85 | noc26-cs37 | IV | B.Tech ECE, INT M Tech ECE | B.Tech ECE, INT M Tech ECE | UG/PG | DE1 | 3 | https://nptel.ac.in/courses/106105166 |
| | | Principles of Communication Systems - I | 25B14EC2 11 | noc26-ee36 | IV | B.Tech ECE, INT M Tech ECE | B.Tech ECE, INT M Tech ECE | UG/PG | DE1 | 3 | https://nptel.ac.in/courses/108104091 |
| Foundation of Machine Learning and Python | 25B42EC212 | Introduction to Internet of Things | 24B14CS4 85 | noc26-cs37 | IV | B.Tech ECE, INT M Tech ECE | B.Tech ECE, INT M Tech ECE | UG/PG | DE1 | 3 | https://nptel.ac.in/courses/106105166 |
| | | Principles of Communication Systems - I | 25B14EC2 11 | noc26-ee36 | IV | B.Tech ECE, INT M Tech ECE | B.Tech ECE, INT M Tech ECE | UG/PG | DE1 | 3 | https://nptel.ac.in/courses/108104091 |
| Foundation of Soft Computing | 25B42EC214 | Introduction to Internet of Things | 24B14CS4 85 | noc26-cs37 | IV | B.Tech ECE, INT M Tech ECE | B.Tech ECE, INT M Tech ECE | UG/PG | DE1 | 3 | https://nptel.ac.in/courses/106105166 |
| | | Principles of Communication Systems - I | 25B14EC2 11 | noc26-ee36 | IV | B.Tech ECE, INT M Tech ECE | B.Tech ECE, INT M Tech ECE | UG/PG | DE1 | 3 | https://nptel.ac.in/courses/108104091 |
| Electronic Instrumentation and Measurement | 25B12EC211 | Introduction to Internet of Things | 24B14CS4 85 | noc26-cs37 | IV | B.Tech ECE, INT M Tech ECE | B.Tech ECE, INT M Tech ECE | UG/PG | DE1 | 3 | https://nptel.ac.in/courses/106105166 |

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|---|------------|---|------------|------------|----|----------------------------|----------------------------|-------|-----|---|---|
| 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 | https://nptel.ac.in/courses/108104091 |
| 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 | https://nptel.ac.in/courses/106105166 |
| | | Principles of Communication Systems - I | 25B14EC211 | noc26-ee36 | IV | B.Tech (ACT) | B.Tech (ACT) | UG/PG | DE1 | 3 | https://nptel.ac.in/courses/108104091 |
| 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 | https://nptel.ac.in/courses/108107380 |
| | | 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 | https://nptel.ac.in/courses/108108147 |
| 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 | https://nptel.ac.in/courses/108107380 |
| | | 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 | https://nptel.ac.in/courses/108108147 |
| 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 | https://nptel.ac.in/courses/108107380 |
| | | 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 | https://nptel.ac.in/courses/108108147 |
| 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 | https://nptel.ac.in/courses/108107380 |

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|---|------------|--|----------------|------------|----|-------------------------------|-------------------------------|-------|------|---|---|
| | | SENSORS AND ACTUATORS | 24B14EC4 11 | noc26-ee13 | VI | B.Tech ECE, INT M Tech ECE | B.Tech ECE, INT M Tech ECE | UG/PG | DE2 | 3 | https://nptel.ac.in/courses/108108147 |
| Semiconductor Devices and Circuits | 23B12EC311 | VLSI Physical Design with Timing Analysis | 25B14EC3 13 | noc26-ee90 | VI | B.Tech ECE, INT M Tech ECE | B.Tech ECE, INT M Tech ECE | UG/PG | DE2 | 3 | https://nptel.ac.in/courses/108107380 |
| | | SENSORS AND ACTUATORS | 24B14EC4 11 | noc26-ee13 | VI | B.Tech ECE, INT M Tech ECE | B.Tech ECE, INT M Tech ECE | UG/PG | DE2 | 3 | https://nptel.ac.in/courses/108108147 |
| Nano Manufacturing | 25B22EC313 | VLSI Physical Design with Timing Analysis | 25B14EC3 13 | noc26-ee90 | VI | B.Tech EE(VLSI) | B.Tech EE(VLSI) | UG/PG | DE2 | 3 | https://nptel.ac.in/courses/108107380 |
| | | SENSORS AND ACTUATORS | 24B14EC4 11 | noc26-ee13 | VI | B.Tech EE(VLSI) | B.Tech EE(VLSI) | UG/PG | DE2 | 3 | https://nptel.ac.in/courses/108108147 |
| Digital Hardware Design | 17B1NEC741 | Electromagnetic Waves in Guided and Wireless Media | 25B14EC3 12 | noc26-ee40 | VI | B.Tech ECE, INT M Tech ECE | B.Tech ECE, INT M Tech ECE | UG/PG | DE-3 | 3 | https://nptel.ac.in/courses/108104130 |
| | | FUZZY SETS, LOGIC AND SYSTEMS & APPLICATIONS | 24B14EC4 12 | noc26-ee38 | VI | B.Tech ECE, INT M Tech ECE | B.Tech ECE, INT M Tech ECE | UG/PG | DE-3 | 3 | https://nptel.ac.in/courses/108104157 |
| Fundamentals of Distributed and cloud computing | 21B12CS313 | Electromagnetic Waves in Guided and Wireless Media | 25B14EC3 12 | noc26-ee40 | VI | B.Tech ECE, INT M Tech ECE | B.Tech ECE, INT M Tech ECE | UG/PG | DE-3 | 3 | https://nptel.ac.in/courses/108104130 |
| | | FUZZY SETS, LOGIC AND SYSTEMS & APPLICATIONS | 24B14EC4 12 | noc26-ee38 | VI | B.Tech ECE, INT M Tech ECE | B.Tech ECE, INT M Tech ECE | UG/PG | DE-3 | 3 | https://nptel.ac.in/courses/108104157 |
| RF and microwave Engineering | 17B1NEC734 | Electromagnetic Waves in Guided and Wireless Media | 25B14EC3 12 | noc26-ee40 | VI | B.Tech ECE, INT M Tech ECE | B.Tech ECE, INT M Tech ECE | UG/PG | DE-3 | 3 | https://nptel.ac.in/courses/108104130 |

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| | | FUZZY SETS, LOGIC AND SYSTEMS & APPLICATIONS | 24B14EC4 12 | noc26-ee38 | VI | B.Tech ECE, INT M Tech ECE | B.Tech ECE, INT M Tech ECE | UG/PG | DE-3 | 3 | https://nptel.ac.in/courses/108104157 |
| Introduction to FPGA Design | 24B12EC315 | Electromagnetic Waves in Guided and Wireless Media | 25B14EC3 12 | 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 | https://nptel.ac.in/courses/108104130 |
| | | FUZZY SETS, LOGIC AND SYSTEMS & APPLICATIONS | 24B14EC4 12 | 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 | https://nptel.ac.in/courses/108104157 |
| Multimedia Communications | 18B12EC412 | Semiconductor Devices for Next Generation Field Effect Transistors (More than Moore): A Physics Perspective | 25B14EC4 20 | noc26-ee86 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-7 | 3 | https://nptel.ac.in/courses/108107586 |
| | | Biomedical Signal processing | 25B14EC4 11 | noc26-ee52 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-7 | 3 | https://nptel.ac.in/courses/108105101 |
| | | OPTICAL WIRELESS COMMUNICATI ONS FOR BEYOND 5G NETWORKS AND IOT | 24B14EC4 13 | noc26-ee77 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-7 | 3 | https://nptel.ac.in/courses/108106190 |
| Introduction to IoT | 18B12EC411 | Semiconductor Devices for Next Generation Field Effect Transistors (More than Moore): A Physics Perspective | 25B14EC4 20 | noc26-ee86 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-7 | 3 | https://nptel.ac.in/courses/108107586 |
| | | Biomedical Signal processing | 25B14EC4 11 | noc26-ee52 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-7 | 3 | https://nptel.ac.in/courses/108105101 |

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| | | OPTICAL WIRELESS COMMUNICATIONS FOR BEYOND 5G NETWORKS AND IOT | 24B14EC4 13 | noc26-ee77 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-7 | 3 | https://nptel.ac.in/courses/108106190 |
| Sonar system and acoustic Imaging | 16B1NEC831 | Semiconductor Devices for Next Generation Field Effect Transistors (More than Moore): A Physics Perspective | 25B14EC4 20 | noc26-ee86 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-7 | 3 | https://nptel.ac.in/courses/108107586 |
| | | Biomedical Signal processing | 25B14EC4 11 | noc26-ee52 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-7 | 3 | https://nptel.ac.in/courses/108105101 |
| | | OPTICAL WIRELESS COMMUNICATIONS FOR BEYOND 5G NETWORKS AND IOT | 24B14EC4 13 | noc26-ee77 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-7 | 3 | https://nptel.ac.in/courses/108106190 |
| Natural Language processing with Deep Learning | 19B12EC414 | Semiconductor Devices for Next Generation Field Effect Transistors (More than Moore): A Physics Perspective | 25B14EC4 20 | noc26-ee86 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-7 | 3 | https://nptel.ac.in/courses/108107586 |
| | | Biomedical Signal processing | 25B14EC4 11 | noc26-ee52 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-7 | 3 | https://nptel.ac.in/courses/108105101 |
| | | OPTICAL WIRELESS COMMUNICATIONS FOR BEYOND 5G NETWORKS AND IOT | 24B14EC4 13 | noc26-ee77 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-7 | 3 | https://nptel.ac.in/courses/108106190 |

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|--|------------|---|-------------|------------|------|------------|------------|-------|------|---|---|
| Cognitive Communication System | 17B11EC732 | Semiconductor Devices for Next Generation Field Effect Transistors (More than Moore): A Physics Perspective | 25B14EC4 20 | noc26-ee86 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-7 | 3 | https://nptel.ac.in/courses/108107586 |
| | | Biomedical Signal processing | 25B14EC4 11 | noc26-ee52 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-7 | 3 | https://nptel.ac.in/courses/108105101 |
| | | OPTICAL WIRELESS COMMUNICATIONS FOR BEYOND 5G NETWORKS AND IOT | 24B14EC4 13 | noc26-ee77 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-7 | 3 | https://nptel.ac.in/courses/108106190 |
| Physical Design for submicron technology | 24B12EC414 | Semiconductor Devices for Next Generation Field Effect Transistors (More than Moore): A Physics Perspective | 25B14EC4 20 | noc26-ee86 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-7 | 3 | https://nptel.ac.in/courses/108107586 |
| | | Biomedical Signal processing | 25B14EC4 11 | noc26-ee52 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-7 | 3 | https://nptel.ac.in/courses/108105101 |
| | | OPTICAL WIRELESS COMMUNICATIONS FOR BEYOND 5G NETWORKS AND IOT | 24B14EC4 13 | noc26-ee77 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-7 | 3 | https://nptel.ac.in/courses/108106190 |
| Satellite Communication | 18B12EC417 | Affective Computing | 25B14EC4 21 | noc26-cs61 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-8 | 3 | https://nptel.ac.in/courses/106106244 |

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|---------------------------------------|------------|--|------------|------------|------|------------|------------|-------|------|---|---|
| | | INTEGRATED CIRCUITS, MOSFETS, OP-AMPS AND THEIR APPLICATIONS | 25B14EC412 | noc26-ee12 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-8 | 3 | https://nptel.ac.in/courses/108108111 |
| | | RF AND MICROWAVE NETWORKS | 24B14EC415 | noc26-ee62 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-8 | 3 | https://nptel.ac.in/courses/108105189 |
| Fuzzy Logic and Applications | 25B12EC411 | Affective Computing | 25B14EC421 | noc26-cs61 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-8 | 3 | https://nptel.ac.in/courses/106106244 |
| | | INTEGRATED CIRCUITS, MOSFETS, OP-AMPS AND THEIR APPLICATIONS | 25B14EC412 | noc26-ee12 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-8 | 3 | https://nptel.ac.in/courses/108108111 |
| | | RF AND MICROWAVE NETWORKS | 24B14EC415 | noc26-ee62 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-8 | 3 | https://nptel.ac.in/courses/108105189 |
| Image Analysis and Feature Extraction | 18B12EC421 | Affective Computing | 25B14EC421 | noc26-cs61 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-8 | 3 | https://nptel.ac.in/courses/106106244 |
| | | INTEGRATED CIRCUITS, MOSFETS, OP-AMPS AND THEIR APPLICATIONS | 25B14EC412 | noc26-ee12 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-8 | 3 | https://nptel.ac.in/courses/108108111 |
| | | RF AND MICROWAVE NETWORKS | 24B14EC415 | noc26-ee62 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-8 | 3 | https://nptel.ac.in/courses/108105189 |
| Fundamental of Electric Vehicle | 24B12EC411 | Affective Computing | 25B14EC421 | noc26-cs61 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-8 | 3 | https://nptel.ac.in/courses/106106244 |

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|--|------------|--|------------|------------|------|--------------------|--------------------|-------|------|---|---|
| | | INTEGRATED CIRCUITS, MOSFETS, OP-AMPS AND THEIR APPLICATIONS | 25B14EC412 | noc26-ee12 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-8 | 3 | https://nptel.ac.in/courses/108108111 |
| | | RF AND MICROWAVE NETWORKS | 24B14EC415 | noc26-ee62 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-8 | 3 | https://nptel.ac.in/courses/108105189 |
| 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 | https://nptel.ac.in/courses/106106244 |
| | | INTEGRATED CIRCUITS, MOSFETS, OP-AMPS AND THEIR APPLICATIONS | 25B14EC412 | noc26-ee12 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-8 | 3 | https://nptel.ac.in/courses/108108111 |
| | | RF AND MICROWAVE NETWORKS | 24B14EC415 | noc26-ee62 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-8 | 3 | https://nptel.ac.in/courses/108105189 |
| Introduction to UAV Design | 24B12EC415 | Affective Computing | 25B14EC421 | noc26-cs61 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-8 | 3 | https://nptel.ac.in/courses/106106244 |
| | | INTEGRATED CIRCUITS, MOSFETS, OP-AMPS AND THEIR APPLICATIONS | 25B14EC412 | noc26-ee12 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-8 | 3 | https://nptel.ac.in/courses/108108111 |
| | | RF AND MICROWAVE NETWORKS | 24B14EC415 | noc26-ee62 | VIII | B.Tech ECE | B.Tech ECE | UG/PG | DE-8 | 3 | https://nptel.ac.in/courses/108105189 |
| 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 | |

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|--|------------|---|-------------|------------|------|----------------------|---------|----|-------------|---|--|
| 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. Bioinformatics | Biotech | PG | DE-1 | 3 | |
| Market Research and Data Analysis | 22M22BT211 | Marketing Research and Analysis-II | 25M44BT1 12 | noc25_mg46 | II | M.Sc. Bioinformatics | 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 | |

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|---|------------|--|------------|------------|-----|--------------------|----------------|-------|------------|---|--|
| IPR in Biotechnology | 18M12BT116 | Intellectual Property | 25M24BT11 | 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 | Principles of Management - Course (nptel.ac.in) |

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|--|------------|---|----------------|-------------|-----|--------|-----------|-------|-------|---|---|
| Financial Accounting | 15B1NHS435 | Financial Accounting | 25B14HS2 14 | noc26-mg52 | 4th | BTech | All | UG | HSS-1 | 3 | https://onlinecourses.nptel.ac.in/noc26_mg52/previeww |
| Financial Management | 16B1NHS433 | Financial Management for Managers | 25B14HS3 25 | noc26-mg62 | 5th | BTech | All | UG | HSS-2 | 3 | nptel.ac.in/courses/110107144 |
| Indian English Literature | 25B12HS313 | Indian Writing in English | 25B14HS3 26 | noc26-hs11 | 5th | BTech | All | UG | HSS-2 | 3 | https://onlinecourses.nptel.ac.in/noc26_hs11/preview |
| Global Politics | 20B12HS311 | Globalization: Theoretical Perspectives | 25B14HS3 22 | noc26-hs81 | 6th | BTech | All | UG | HSS-3 | 3 | Globalization: Theoretical Perspectives - Course (nptel.ac.in) |
| Econometric Analysis | 19B12HS611 | Introduction to Econometrics | 25B14HS3 23 | noc26-ec07 | 6th | BTech | All | UG | HSS-3 | 3 | https://onlinecourses.nptel.ac.in/noc26_ec07/preview |
| Organisational Behaviour | 16B1NHS635 | Organizational Behaviour: Individual Dynamics in Organization | 25B14HS3 24 | noc26-mg20 | 6th | BTech | All | UG | HSS-3 | 3 | https://onlinecourses.nptel.ac.in/noc26_mg20/preview |
| Economy, Policy and Business Environment | | Indian Economy: Policy and Environment | 25B14HS3 27 | nou26_hs32 | 6th | BTech | All | UG | OE-1 | 3 | https://onlinecourses.swayam2.ac.in/nou26_hs32/preview |
| Gender Studies | 16B1NHS831 | Contextualizing Gender | 25B14HS4 12 | noc26-hs113 | 8th | B.tech | All | UG/PG | OE-3 | 3 | https://onlinecourses.nptel.ac.in/noc26_hs113/preview |
| Research Methodology in Economics | 23M22HS212 | Research Methodology for Planning and Architectural Studies | 24M24HS2 18 | noc26-ar17 | 4th | MSc | Economics | PG | DE-6 | 3 | https://onlinecourses.nptel.ac.in/noc26_ar17/preview |

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|--|------------|---|-------------|------------|---|-------|--------|-------|------|---|---|
| Fundamentals of Data Analytics | 25B12CS211 | Data Mining | 19B14CS4 13 | noc26-cs58 | 4 | BTech | CSE/IT | UG | DE 1 | 2 | https://onlinecourses.nptel.ac.in/noc26_cs58/preview |
| Fundamentals of Mobile Application Development | 25B12CS212 | Data Mining | 19B14CS4 13 | noc26-cs58 | 4 | BTech | CSE/IT | UG | DE 1 | 2 | https://onlinecourses.nptel.ac.in/noc26_cs58/preview |
| Fundamentals of Smart Systems and IoT | 25B12CS213 | Data Mining | 19B14CS4 13 | noc26-cs58 | 4 | BTech | CSE/IT | UG | DE 1 | 2 | https://onlinecourses.nptel.ac.in/noc26_cs58/preview |
| Sensor Technology & Android Programming | 21B12CS312 | Compiler Design | 25B14CS3 16 | noc26-cs56 | 6 | BTech | CSE/IT | UG/PG | DE 2 | 3 | https://onlinecourses.nptel.ac.in/noc26_cs56/preview |
| Fundamentals of Soft Computing | 21B12CS319 | Neural Networks for Computer Vision and Natural Language Processing | 25B14CS3 23 | noc26-cs04 | 6 | BTech | CSE/IT | UG/PG | DE 2 | 3 | https://onlinecourses.nptel.ac.in/noc26_cs04/preview |
| Introduction to Large Scale Database Systems | 21B12CS314 | Compiler Design | 25B14CS3 16 | noc26-cs56 | 6 | BTech | CSE/IT | UG | DE 2 | 3 | https://onlinecourses.nptel.ac.in/noc26_cs56/preview |
| Web Technology and Cyber Security | 21B12CS315 | Compiler Design | 25B14CS3 16 | noc26-cs56 | 6 | BTech | CSE/IT | UG | DE 2 | 3 | https://onlinecourses.nptel.ac.in/noc26_cs56/preview |
| Introduction to Compiler Design | 21B12CS316 | Compiler Design | 25B14CS3 16 | noc26-cs56 | 6 | BTech | CSE/IT | UG | DE 2 | 3 | https://onlinecourses.nptel.ac.in/noc26_cs56/preview |
| Introduction to Blockchain Technology | 21B12CS317 | Blockchain and its Applications | 23B14CS4 51 | noc26-cs56 | 6 | BTech | CSE/IT | UG/PG | DE 3 | 3 | https://onlinecourses.nptel.ac.in/noc26_cs34/preview |

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

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|--|------------|--|------------|------------|---|-----------------|--------|-------|--------------------|---|---|
| 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 | https://onlinecourses.nptel.ac.in/noc26_cs38/preview |
| Cryptocurrency Technologies | 22B12CS419 | Foundations of Cyber Physical Systems | 24B14CS453 | noc26-cs41 | 8 | BTech | CSE/IT | UG/PG | DE 8 | 3 | https://onlinecourses.nptel.ac.in/noc26_cs41/preview |
| 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 | https://onlinecourses.nptel.ac.in/noc26_cs38/preview |
| 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 | https://onlinecourses.nptel.ac.in/noc26_cs38/preview |
| 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 | https://onlinecourses.nptel.ac.in/noc26_cs35/preview |
| 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 | https://onlinecourses.nptel.ac.in/noc26_cs01/preview |
| 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 | https://onlinecourses.nptel.ac.in/noc26_cs88/preview |
| Meta Heuristics and Optimization | 19M12CS112 | Selected Topics in Algorithms | 25M14CS151 | noc26-cs48 | 2 | CSE/DD8 | CSE/IT | PG | Mtech Elective-IV | 3 | https://onlinecourses.nptel.ac.in/noc26_cs48/preview |
| Data Visualization | 26M12CS122 | Business Intelligence & Analytics | 25M14CS145 | noc26-cs64 | 2 | AIDS | CSE/IT | PG | Mtech Elective-IV | 3 | https://onlinecourses.nptel.ac.in/noc26_cs64/preview |

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|---|------------|----------------------------------|------------|------------|---|-------|--------|-------|--|---|---|
| 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 | https://onlinecourses.nptel.ac.in/noc26_cs74/preview |
| 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 | https://onlinecourses.nptel.ac.in/noc26_cs74/preview |
| 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 | https://onlinecourses.nptel.ac.in/noc26_cs45/preview |

Dept. of PMSE

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|-------------------------------------|------------|---------------------------------------|------------|------------|---|--------|------------------------------------|----|----|---|---|
| Plasma Physics | 18B12PH814 | Plasma Physics and Applications | 24B14PH411 | noc26-ph32 | 8 | B.Tech | CSE,IT,EC E,INT CSE, INT ECE | UG | OE | 3 | https://nptel.ac.in/courses/15107447 |
| Solid State Electronic Devices | 16B1NPH632 | Fundamentals of semiconductor devices | 24B14PH314 | noc26-ee14 | 6 | B.Tech | CSE,IT,EC E,INT CSE, INT ECE | UG | OE | 3 | https://nptel.ac.in/courses/108108122 |
| Fiber Optics | 19M21PH217 | Optical Fiber Sensors | 24M24PH211 | noc26-ee76 | 4 | MSc | MSc Phy, PhD | PG | DE | 3 | https://nptel.ac.in/courses/108106173 |
| Advanced Condensed Matter Physics-2 | 19M21PH216 | Diffusion in Solids | 25M24PH212 | noc26-mm41 | 4 | MSc | MSc Phy, PhD | PG | DE | 3 | https://nptel.ac.in/courses/13106635 |

Dept. of Computer Application

| | | | | | | | | | | | |
|---|------------|---|------------|------------|----|-----|----------------------|-------|--------------------|---|--|
| ***Introduction to Blockchain | 25B12CA323 | Blockchain and its Applications | 25B14CA323 | noc26-cs34 | VI | BCA | Computer Application | UG/PG | Major Choice | 4 | |
| ***Cloud Computing | 25B12CA324 | Cloud Computing | 25B14CA324 | noc26-cs55 | VI | BCA | Computer Application | UG | Major Choice | 4 | |
| Agile Software Development | 25B12CA325 | Software Reliability | 25B14CA325 | noc26_ma05 | VI | BCA | Computer Application | UG/PG | Major Choice | 4 | |
| IoT Analytics | 25B12CA326 | Introduction To Internet Of Things | 25B14CA326 | noc26-cs37 | VI | BCA | Computer Application | UG/PG | Major Choice | 3 | |
| Fuzzy Logic and Neural Network | 25B12CA327 | Fuzzy Sets, Logic and Systems & Applications | 25B14CA327 | noc26-ee38 | VI | BCA | Computer Application | UG/PG | Major Choice-V | 2 | |
| Computer and Network Security | 25B12CA328 | Foundations of Cryptography, IIIT Bangalore | 25B14CA328 | noc26-cs18 | VI | BCA | Computer Application | UG/PG | Major Choice-V | 2 | |
| Fuzzy Logic and Neural Network | 25B16CA327 | Python for Data Science | 25B14CA329 | noc26-cs80 | VI | BCA | Computer Application | UG | Major Choice-V Lab | 1 | |
| Computer and Network Security | 25B16CA328 | Data Mining for Decision Making | 25B14CA330 | noc26-cs14 | VI | BCA | Computer Application | UG/PG | Major Choice-V Lab | 1 | |
| Fundamentals of Artificial Intelligence | 23B12CA211 | Artificial Intelligence: Knowledge Representation And Reasoning | 25B14CA111 | noc26-cs63 | IV | BCA | Computer Application | UG/PG | Major Choice-I | 3 | |
| Fundamentals of Machine Learning | 23B12CA216 | Introduction to Machine Learning | 25B14CA116 | noc26-cs74 | IV | BCA | Computer Application | UG/PG | Major Choice-I | 3 | |
| Introduction to Big Data and Data Analytics | 23B12CA213 | Data Analytics with Python | 25B14CA112 | noc26-cs86 | IV | BCA | Computer Application | UG/PG | Major Choice-II | 3 | |
| Introduction to Cryptography and its Applications | 23B12CA215 | Foundations of Cryptography, IIIT Bangalore | 25B14CA215 | noc26-cs18 | IV | BCA | Computer Application | UG/PG | Major Choice-II | 3 | |
| Full Stack Developer-II(Web development) | 25B12CA320 | Programming In Java | 25B14CA320 | noc26-cs36 | IV | BCA | Computer Application | UG | Minor Choices-II | 2 | |
| Full Stack Developer-II(Mobile) | 25B12CA322 | Programming in Modern C++ | 25B14CA322 | noc26-cs52 | IV | BCA | Computer Application | UG/PG | Minor Choices-II | 2 | |

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| 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 | |

JBS

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|---------------------|------------|------------------------------------|-------------|------------|-----|-----|-----------|----|----|---|--|
| Services Marketing | 24M12BMM16 | Strategic Services Marketing | 24M14BM M16 | noc26_mg78 | III | MBA | Marketing | PG | DE | 3 | |
| Marketing Analytics | 24M12BMM24 | Metrics and Analytics of Marketing | 24M14BM M24 | noc26-mg03 | III | MBA | Marketing | PG | DE | 3 | |

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|---|------------|---|-------------|------------|-----|-----|-----------------------|----|--------------|---|--|
| Talent Management | 20M12BHR14 | Talent Acquisition and Management | 20M14BH R14 | noc26-mg60 | III | MBA | HR | PG | DE | 3 | |
| Financial Statement Analysis and Business Valuation | 24M12BAF12 | Financial Statement Analysis and Reporting | 24M14BAF 12 | noc26-mg63 | III | MBA | Finance | PG | DE | 3 | |
| Supply Chain Analytics | 24M12BOM23 | Modelling and Analytics for Supply Chain Management | 24M14BO M23 | noc26-mg35 | III | MBA | Operations Management | PG | DE | 3 | |
| Advertising Management | 23B12BMM13 | Advertising & Promotions Management | 23B14BM M13 | noc26-mg28 | VI | BBA | Marketing | UG | Elective-MKT | 4 | |
| Understanding Organization Change and Development | 20B12BHR19 | Organizational Design Change and Transformation | 20B14BHR 19 | noc26-mg36 | VI | BBA | HR | UG | Elective-HR | 4 | |
| Business Models of Start Ups | 20B12BFB12 | Business Development: From Start to Scale | 20B14BFB 12 | noc26-mg50 | VI | BBA | Family Business | UG | Elective-FBE | 4 | |
| Financial Derivative and Risk Management | 20B12BAF13 | Financial Derivatives & Risk Management | 20B14BAF 13 | 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

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|-----------------------------|------------|--|------------|------------|-----|-------|--|----|------------------|---|--|--|
| 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 | | |

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|---|------------|--|------------|----------------|-----|-------|---|--|---------------|---------------------|---|--|
| | | | | | | | 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 | | |

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|--|------------|--|------------|------------|-----|----------|----------|-------|---------------|---|--|--|
| 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

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|--------------------------------------|------------|---|------------|------------|------|----------------------------|----------------------------|-------|-----|---|-----|---|
| 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% | https://nptel.ac.in/courses/106105166 |
| | | 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% | https://nptel.ac.in/courses/108104091 |
| 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% | https://nptel.ac.in/courses/106105166 |

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|--|------------|---|------------|------------|------|----------------------------|----------------------------|-------|------|---|-----|---|
| | | 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% | https://nptel.ac.in/courses/10810491 |
| 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% | https://nptel.ac.in/courses/106105166 |
| | | 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% | https://nptel.ac.in/courses/10810491 |
| 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% | https://nptel.ac.in/courses/108105572 |
| | | 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% | https://nptel.ac.in/courses/117105137 |
| 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% | https://nptel.ac.in/courses/108105572 |

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|---|------------|---|------------|------------|-----|----------------------------|----------------------------|-------|------|---|-----|---|
| | | 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% | https://nptel.ac.in/courses/117105137 |
| 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% | https://nptel.ac.in/courses/108105572 |
| | | 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% | https://nptel.ac.in/courses/117105137 |
| 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% | https://nptel.ac.in/courses/108105572 |
| | | 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% | https://nptel.ac.in/courses/117105137 |
| 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% | https://nptel.ac.in/courses/108105572 |

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|---|------------|---|------------|------------|-----|----------------------------|----------------------------|-------|------|---|-----|---|
| | | 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% | https://nptel.ac.in/courses/117105137 |
| 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% | https://nptel.ac.in/courses/117105132 |
| 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% | https://nptel.ac.in/courses/117105132 |
| 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% | https://nptel.ac.in/courses/117105132 |
| 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% | https://nptel.ac.in/courses/117105132 |
| 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% | https://nptel.ac.in/courses/108106136 |

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| 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% | https://nptel.ac.in/courses/108106136 |
| 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% | https://nptel.ac.in/courses/108106136 |
| 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% | https://nptel.ac.in/courses/108106136 |
| 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% | https://nptel.ac.in/courses/108106136 |

Dept. of Biotechnology

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|----------------------------|------------|---|------------|------------|-----|-------|---------|----|------|---|--|--|
| 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 | | |

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| STEM CELLS AND HEALTHCARE | 17B1NBT734 | Pharmacognosy & Metabolic Engineering | 24M24BT214 | noc25-bt38 | VII | Btech | Biotech | UG | DE-4 | 3 | | |
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Dept. of CSE/IT

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|--|------------|---------------------|------------|------------|---|-------|--------|-------|------|---|--|---|
| Fundamentals of Machine learning | 20B12CS331 | Programming In Java | 20B14CS313 | noc26-cs36 | 6 | BTech | CSE/IT | UG/PG | DE-1 | 3 | | https://onlinecourses.nptel.ac.in/noc26_cs38/preview |
| Fundamentals of Computer security | 20B12CS332 | Programming In Java | 20B14CS313 | noc26-cs36 | 6 | BTech | CSE/IT | UG/PG | DE-1 | 3 | | https://onlinecourses.nptel.ac.in/noc26_cs38/preview |
| Introduction to Big data and Data Analytics | 20B12CS333 | Programming In Java | 20B14CS313 | noc26-cs36 | 6 | BTech | CSE/IT | UG/PG | DE-1 | 3 | | https://onlinecourses.nptel.ac.in/noc26_cs38/preview |
| Object Oriented Analysis and Design using Java | 20B12CS334 | Programming In Java | 20B14CS313 | noc26-cs36 | 6 | BTech | CSE/IT | UG/PG | DE-1 | 3 | | https://onlinecourses.nptel.ac.in/noc26_ |

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|--------------------------------------|------------|---------------------------|------------|------------|---|-------|--------|-------|------|---|---|
| Image Processing and Computer Vision | 20B12CS335 | Programming In Java | 20B14CS313 | noc26-cs36 | 6 | BTech | CSE/IT | UG/PG | DE-1 | 3 | https://onlinelcourses.nptel.ac.in/noc26_cs38_preview |
| Automata Theory and its applications | 20B12CS336 | Programming In Java | 20B14CS313 | noc26-cs36 | 6 | BTech | CSE/IT | UG/PG | DE-1 | 3 | https://onlinelcourses.nptel.ac.in/noc26_cs38_preview |
| Big Data with Hadoop and Spark | 21B12CS411 | Deep Learning - IIT Ropar | 24B14CS484 | noc26-cs66 | 7 | BTech | CSE/IT | UG/PG | DE-4 | 3 | https://onlinelcourses.nptel.ac.in/noc26_cs66_preview |
| Introduction to Deep Learning | 18B12CS428 | Deep Learning - IIT Ropar | 24B14CS484 | noc26-cs66 | 7 | BTech | CSE/IT | UG/PG | DE-4 | 3 | https://onlinelcourses.nptel.ac.in/noc26_cs66_preview |

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

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| | | Machine Learning | | | | | | | | | ptel.ac.in/noc26_cs02/preview |
| Secure Design of Software Systems | 21B12CS415 | Secure Computation: Part I | 25B14CS412 | noc26-cs17 | 7 | BTech | CSE/IT | UG/PG | DE-5 | 3 | https://onlinelibrary.nptel.ac.in/noc26_cs17/preview |
| Computing for Data Science | 19B12CS423 | Mathematical Foundations of Machine Learning | 25B14CS418 | noc26-cs02 | 7 | BTech | CSE/IT | UG/PG | DE-5 | 3 | https://onlinelibrary.nptel.ac.in/noc26_cs02/preview |
| Introduction to DevOps | 19B12CS427 | Mathematical Foundations of Machine Learning | 25B14CS418 | noc26-cs02 | 7 | BTech | CSE/IT | UG/PG | DE-5 | 3 | https://onlinelibrary.nptel.ac.in/noc26_cs02/preview |
| Machine Learning and Natural Language Processing | 17B1NCI731 | Social Networks | 18B14CS411 | noc26-cs82 | 7 | BTech | CSE/IT | UG | DE-6 | 3 | https://onlinelibrary.nptel.ac.in/noc26_cs82/ |

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|---|------------|---------------------------------|------------|------------|---|-------|--------|-------|------|---|---|
| Social Network Analysis | 15B1NCI732 | Social Networks | 18B14CS411 | noc26-cs82 | 7 | BTech | CSE/IT | UG | DE-6 | 3 | https://onlinecourses.nptel.ac.in/noc26_cs82/preview |
| Ethical Hacking and Prevention | 21B12CS418 | Social Networks | 18B14CS411 | noc26-cs82 | 7 | BTech | CSE/IT | UG | DE-6 | 3 | https://onlinecourses.nptel.ac.in/noc26_cs82/preview |
| Advanced Blockchain : A game theoretic view | 19B12CS425 | Blockchain and its Applications | 23B14CS451 | noc26-cs34 | 7 | BTech | CSE/IT | UG/PG | DE-6 | 3 | https://onlinecourses.nptel.ac.in/noc26_cs34/preview |
| Fog and Edge Computing | 21B12CS413 | Blockchain and its Applications | 23B14CS451 | noc26-cs34 | 7 | BTech | CSE/IT | UG/PG | DE-6 | 3 | https://onlinecourses.nptel.ac.in/noc26_cs34/preview |

Dept. of PMSE

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|--|------------|---|------------|------------|---|--------|-----------------------------|----|----|---|------|---|
| 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 | https://nptel.ac.in/courses/115106925 |
| 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 | https://nptel.ac.in/courses/115101639 |