



**SIDDHARTHA ACADEMY OF HIGHER EDUCATION**  
**AN INSTITUTION DEEMED TO BE UNIVERSITY**  
**VELAGAPUDI RAMAKRISHNA SCHOOL OF ENGINEERING**  
**DEPARTMENT OF CENTRAL LIBRARY**

Date: 31-03-2025

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**List of IITs Colleges, NPTEL Courses**

| S.No. | IITs Name           | No. of Videos |
|-------|---------------------|---------------|
| 1     | IIS Bangalore       | 258           |
| 2     | IIT Bombay          | 548           |
| 3     | IIT Delhi           | 690           |
| 4     | IIT Guwahati        | 335           |
| 5     | IIT KANPUR          | 911           |
| 6     | IIT Kharagpur       | 1904          |
| 7     | IIT Madras          | 1187          |
| 8     | IIT PATNA           | 35            |
| 9     | IIT Roorkee         | 264           |
| 10    | SEER AKADEMI        | 43            |
|       | <b>Total Videos</b> | <b>6175</b>   |

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**DEPARTMENT WISE List of NPTEL Videos:**

| <b>S.No</b> | <b>Department Name</b>           | <b>Total NPTEL Videos</b> |
|-------------|----------------------------------|---------------------------|
| 1           | CE                               | 1,155                     |
| 2           | AI&DS, CSE, CSE(AI&ML), IT & MCA | 1,607                     |
| 3           | ECE                              | 894                       |
| 4           | EEE                              | 869                       |
| 5           | EIE                              | 606                       |
| 6           | ME                               | 1,044                     |
|             | <b>Total</b>                     | <b>6175</b>               |

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**The list of Titles of Civil Engineering (CE) NPTEL Courses**

| S. No. | Subject/Course                      | IITs Name     | No. of Videos |
|--------|-------------------------------------|---------------|---------------|
| 1      | Advanced Foundation Engineering     | IIT Kharagpur | 40            |
| 2      | Advanced Geotechnical Engineering   | IIT Bombay    | 38            |
| 3      | Advanced Structural Analysis        | IIT Madras    | 41            |
| 4      | Building Materials And Construction | IIT Delhi     | 41            |
| 5      | Complex Analysis                    | IIT Guwahati  | 40            |
| 6      | Concrete Technology                 | IIT Delhi     | 41            |
| 7      | Design of Steel Structures          | IIT Guwahati  | 40            |
| 8      | Engineering Geology                 | IIT Kharagpur | 40            |
| 9      | Environmental Air Pollution         | IIT KANPUR    | 39            |
| 10     | Finite Element Analysis             | IIT Madras    | 40            |
| 11     | Fluid Mechanics                     | IIT Bombay    | 42            |
| 12     | Foundation Engineering              | IIT Roorkee   | 40            |
| 13     | Geotechnical Earthquake Engineering | IIT Bombay    | 43            |
| 14     | Ground Improvement Techniques       | IIS Bangalore | 40            |
| 15     | Hydraulics                          | IIT Guwahati  | 40            |
| 16     | Pre Stressed Concrete Structures    | IIT Madras    | 40            |
| 17     | Strength of Materials               | IIT Kharagpur | 40            |
| 18     | Structural Analysis-II              | IIT Bombay    | 40            |
| 19     | Surveying                           | IIT Kanpur    | 40            |
| 20     | Transportation Engineering-II       | IIT Roorkee   | 40            |
| 21     | Urban Transportation Planning       | IIT Madras    | 40            |
| 22     | Water and Wastewater Engineering    | IIT Madras    | 40            |
| 23     | Water Resources Engineering         | IIT Kanpur    | 28            |
| 24     | NOC Mechanics of Solids             | IIT Kanpur    | 60            |
| 25     | GPS Surveying                       | IIT Roorkee   | 21            |
| 26     | Soil Structure Interaction          | IIT Kharagpur | 66            |

|    |   |               |              |
|----|---|---------------|--------------|
| 27 | Retrofitting and Rehabilitation of Civil Infrastructure | IIT Kharagpur | 63           |
| 28 | Geotechnical Engineering-I                              | IIT Bombay    | 32           |
|    | <b>Total Video's</b>                                    |               | <b>1,155</b> |

**The list of Titles of CSE/IT/MCA NPTEL Courses**

| S. No. | Subject/Course                         | IITs Name     | No. of Videos |
|--------|--|---------------|---------------|
| 1      | Artificial Intelligence                | IIT Kharagpur | 40            |
| 2      | Cloud Computing                        | IIT Kharagpur | 40            |
| 3      | Compiler Design                        | IIS Bangalore | 40            |
| 4      | Computer Graphics                      | IIT Madras    | 43            |
| 5      | Computer Networks                      | IIT Kharagpur | 40            |
| 6      | Computer Organization                  | IIT Madras    | 33            |
| 7      | Cryptography And Network Security      | IIT Kharagpur | 41            |
| 8      | Data Communication                     | IIT Kharagpur | 41            |
| 9      | Data Science for Engineers             | IIT Madras    | 50            |
| 10     | Data Structures and Algorithms         | IIT Delhi     | 36            |
| 11     | Database Management System             | IIT Madras    | 43            |
| 12     | Descriptive Statistics with R Software | IIT Kanpur    | 34            |
| 13     | Design and Analysis of Algorithms      | IIT Bombay    | 34            |
| 14     | Discrete Mathematical Structures       | IIT Madras    | 40            |
| 15     | Discrete Mathematics                   | IIT ROORKEE   | 41            |
| 16     | Introduction to Internet of Things     | IIT Kharagpur | 63            |
| 17     | Introduction to Programming in C       | IIT Kanpur    | 59            |
| 18     | Linux Programming and Scripting        | SEER AKADEMI  | 43            |
| 19     | Machine Learning                       | IIT Madras    | 50            |
| 20     | Mobile Computing                       | IIT Madras    | 39            |
| 21     | Operating Systems                      | IIT Delhi     | 40            |

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|----|--|---------------|--------------|
| 22 | Practical Machine Learning with Tensor Flow                | IIT Madras    | 39           |
| 23 | Principles of Programming Languages                        | IIT Delhi     | 40           |
| 24 | Probability and Statistics                                 | IIT KHARAGPUR | 40           |
| 25 | Programming, Data Structures and Algorithms in Python      | IIT Madras    | 45           |
| 26 | Python for Data Science                                    | IIT Madras    | 40           |
| 27 | Theory of Computation                                      | IIT Kanpur    | 42           |
| 28 | Software Engineering                                       | IIT Bombay    | 39           |
| 29 | Big Data Computing   | IIT PATNA     | 35           |
| 30 | Artificial Intelligence Search Methods for Problem Solving | IIT Madras    | 48           |
| 31 | Essentials of Data Science with R software_1               | IIT Kanpur    | 69           |
| 32 | Essentials of Data Science with R Software_2               | IIT Kanpur    | 53           |
| 33 | Scalable Data Science                                      | IIT Kharagpur | 41           |
| 34 | An Introduction to Artificial Intelligence                 | IIT Delhi     | 96           |
| 35 | Virtual Reality Engineering                                | IIT Madras    | 90           |
|    | <b>Total Video's</b>                                       |               | <b>1,607</b> |

**The list of Titles of Electronics & Communication Engineering (ECE) NPTEL Courses**

| S. No | Subject/Course                  | IITs Name    | No. of Videos |
|-------|---------------------------------|--------------|---------------|
| 1     | Advanced Optical Communications | IIT Bombay   | 41            |
| 2     | Analog IC Design                | IIT Madras   | 60            |
| 3     | Basic Electronics Engineering   | IIT Guwahati | 40            |
| 4     | Circuit Theory                  | IIT Delhi    | 51            |

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|----|--|---------------|------------|
| 5  | CMOS Analog VLSI Design  | IIT Bombay    | 29         |
| 6  | Digital Circuits and Systems                                   | IIT Madras    | 40         |
| 7  | Digital Communications   | IIT Bombay    | 32         |
| 8  | Digital Signal Processing                                      | IIT Delhi     | 43         |
| 9  | Digital Systems Design   | IIT Kharagpur | 40         |
| 10 | Probability and Random Processes                               | IIT Kharagpur | 40         |
| 11 | Introduction to Industry 4.0 and Industrial Internet of Things | IIT Kharagpur | 73         |
| 12 | Probability and Random Variables                               | IIT Kharagpur | 40         |
| 13 | Signals and Systems  | IIT Kanpur    | 45         |
| 14 | Transmission Lines and EM Waves                                | IIT Bombay    | 60         |
| 15 | VLSI Design Verification                                       | IIT Guwahati  | 53         |
| 16 | Wireless Communications  | IIT Delhi     | 39         |
| 17 | Audio System Engineering                                       | IIT Kharagpur | 24         |
| 18 | Advanced Complex Analysis-Part 1                               | IIT Madras    | 43         |
| 19 | Advanced Complex Analysis-Part 2                               | IIT Madras    | 43         |
| 20 | Communication Networks   | IIT Kharagpur | 58         |
|    | <b>Total Video's</b>   |               | <b>894</b> |

#### **The list of Titles of Electrical & Electronics Engineering (EEE) NPTEL Courses**

| <b>S. No</b> | <b>Subject/Course</b>        | <b>IITs Name</b> | <b>No. of Videos</b> |
|--------------|------------------------------|------------------|----------------------|
| 1            | Basic Electrical Technology  | IIS Bangalore    | 39                   |
| 2            | Electrical Machines-I        | IIT Kharagpur    | 40                   |
| 3            | Electrical Machines-II       | IIT Kharagpur    | 90                   |
| 4            | Electromagnetic Fields       | IIT Madras       | 42                   |
| 5            | Electromagnetic Theory       | IIT Kanpur       | 85                   |
| 6            | High Voltage DC Transmission | IIT Kanpur       | 37                   |
| 7            | Illumination Engineering     | IIT Kharagpur    | 20                   |

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|----|--|---------------|------------|
| 8  | Microprocessors and Interfacing                        | IIT Guwahati  | 41         |
| 9  | Power Electronics                                      | IIT Bombay    | 43         |
| 10 | Power Quality  | IIT Delhi     | 54         |
| 11 | Power System Analysis                                  | IIT Kharagpur | 40         |
| 12 | Power System Generation, Transmission and Distribution | IIT Delhi     | 35         |
| 13 | Power Systems Operation and Control                    | IIT Kanpur    | 35         |
| 14 | Pulse Width Modulation for Power Electronic Converters | IIS Bangalore | 40         |
| 15 | Switched Mode Power Conversion                         | IIS Bangalore | 40         |
| 16 | Digital Electronic Circuits                            | IIT Kharagpur | 64         |
| 17 | Network Analysis                                       | IIT Kharagpur | 83         |
| 18 | Waste to Energy Conversation                           | IIT ROORKEE   | 41         |
|    | <b>Total Video's</b>                                   |               | <b>869</b> |

### **The list of Titles of Electronics & Instrumentation Engineering (EIE) NPTEL**

#### **Courses**

| <b>S. No</b> | <b>Subject/Course</b>   | <b>IITs Name</b> | <b>No. of Videos</b> |
|--------------|---|------------------|----------------------|
| 1            | Analog Electronic Circuits                                      | IIT Delhi        | 51                   |
| 2            | Digital Image Processing  | IIT Kharagpur    | 40                   |
| 3            | Economics /Managements<br>/Entrepreneurship                     | IIT Kharagpur    | 50                   |
| 4            | Embedded Systems  | IIT Delhi        | 37                   |
| 5            | Industrial Instrumentation                                      | IIT Kharagpur    | 39                   |
| 6            | Integrated Circuits, MOSFETS, OP-AMPS<br>and Their Applications | IIS Bangalore    | 59                   |
| 7            | MEMS and Microsystems   | IIT Kharagpur    | 32                   |

|    |  |               |            |
|----|--|---------------|------------|
| 8  | Microprocessors and Microcontrollers             | IIT Kharagpur | 64         |
| 9  | Networks, Signals and Systems                    | IIT Kharagpur | 36         |
| 10 | Process Control & Instrumentation                | IIT Kharagpur | 44         |
| 11 | Programming and Data Structures Using C          | IIT Kharagpur | 32         |
| 12 | Signals and Systems                              | IIT Kanpur    | 45         |
| 13 | Electrical Measurement and Electronic Instrument | IIT Kharagpur | 37         |
| 14 | Industrial Automation and Control                | IIT Kharagpur | 40         |
|    | <b>Total Video's</b>                             |               | <b>606</b> |

**The list of Titles of Mechanical Engineering (ME) NPTEL Courses**

| S. No | Subject/Course                              | IITs Name     | No. of Videos |
|-------|---|---------------|---------------|
| 1     | Advanced Manufacturing Processes            | IIT Roorkee   | 39            |
| 2     | Advanced Operation Research                 | IIT Madras    | 39            |
| 3     | Applied Thermodynamics for Marine Systems   | IIT Kharagpur | 27            |
| 4     | Basic Thermodynamics                        | IIT Kharagpur | 16            |
| 5     | Computer Aided Design and Manufacturing     | IIT Delhi     | 51            |
| 6     | Design of Machine Elements-I                | IIT Kharagpur | 40            |
| 7     | Dynamics of Machines                        | IIT Kanpur    | 44            |
| 8     | Energy Conservation and Waste Heat Recovery | IIT Kharagpur | 71            |
| 9     | Finite Element Method                       | IIT Kanpur    | 38            |
| 10    | Heat and Mass Transfer                      | IIT Bombay    | 35            |
| 11    | Kinematics of Machines                      | IIT Kanpur    | 39            |
| 12    | Manufacturing Process-I                     | IIT Roorkee   | 42            |



|    |   |               |              |
|----|---|---------------|--------------|
| 13 | Manufacturing Process-II                        | IIT Kharagpur | 41           |
| 14 | Materials Science                               | IIT Delhi     | 35           |
| 15 | Mathematical Methods in Engineering and Science | IIT Kanpur    | 40           |
| 16 | Mechanical Measurements and Metrology           | IIT Madras    | 50           |
| 17 | Mechanical Vibrations                           | IIT Guwahati  | 40           |
| 18 | Principles of Physical Metallurgy               | IIT Kharagpur | 42           |
| 19 | Refrigeration and Air Conditioning              | IIT Kharagpur | 46           |
| 20 | Robotics  | IIT Bombay    | 40           |
| 21 | Mechanics of Materials                          | IIT Madras    | 109          |
| 22 | Fundamentals of Artificial Intelligence         | IIT Guwahati  | 41           |
| 23 | Kinematics of Machines                          | IIT Kanpur    | 39           |
| 24 | Jet and Rocket Propulsion                       | IIT Kanpur    | 40           |
|    | <b>Total Video's</b>                            |               | <b>1,044</b> |