



Electronics & ICT Academy IIT Roorkee



An Initiative of
**Ministry of Electronics
& Information
Technology (MeitY)**
Government of India

A Joint Faculty Development Programme on

Fundamentals of Smart Grid

In association with



June 30 – July 21, 2025

Register Before: June 28, 2025

Mode of Delivery is Online

Course Outcomes

- Understand the structure and operation of smart grids
- Analyze challenges in integrating distributed energy resources
- Gain knowledge of smart metering and communication systems
- Apply control and automation in power systems
- Evaluate the role of data and cybersecurity in grid operations
- Design academic and research projects in smart grid areas
- Align curriculum and teaching with evolving smart grid technologies



About E&ICT Academy

Electronics and ICT Academy is an initiative of Ministry of Electronics & Information Technology (MeitY), Govt. of India for conducting various Faculty/Research Scholar Development Programme. Academy has planned short-term training programs on fundamental and advanced topics in IT, Electronics & Communication, Product Design, and Manufacturing with hands-on training and project work using the latest software tools and systems. In addition, the Academy will conduct specialized/customized training programs and research promotion workshops for corporate sector & educational institutions.

Prerequisites

Basic knowledge of semiconductor physics, electronic circuits, and familiarity with simulation or programming tools.

Experts from Academia/Industry

Who Should Register?

Any Interested Faculty/PhD-Scholars
UG/PG/ & Industry Persons can register

Registration Fee

Fees: ₹ 500/- Faculty/Research Scholar/ Students
₹ 1000/- Industry/Others

Note: Refund will be done in case of course cancellation only, within 20 working days

How to make Payment

Please make the payment first using the below link
upload the payment receipt when filling out the
Google registration form.

<https://eict.iitr.ac.in/instruction-for-payment/>

Conference Code: EICTIITR-JFDP-NKN-09

Registration Link

<https://forms.gle/btpxcWydBenTWFLG7>



Scan QR for
registration

Register before:
June 28, 2025

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Objectives of the course

- To introduce the basic concepts and architecture of smart grids
- To provide insights into modern power system monitoring and control
- To explore integration of renewable energy sources and distributed generation
- To understand communication technologies and smart metering infrastructure
- To analyze grid automation, demand-side management, and load forecasting
- To familiarize faculty with emerging trends and smart grid standards
- To prepare participants to teach, research, and implement smart grid concepts

Focus Areas

- Smart grid architecture and functional components
- Renewable energy integration and storage systems
- Advanced metering infrastructure (AMI) and communication protocols
- Power system automation and control strategies
- Demand response and load management
- Cybersecurity and data analytics in smart grids
- National and international smart grid standards and policies

Course Features

- 40 Hours of Lectures, Hands-on, and Pedagogy/Industry sessions.
- Lectures from Expert Speakers, Hands-on from industry/Academia experts.
- Access to learning material and video lectures
- Certificate by E&ICT Academy IIT Roorkee

Principal Coordinator

- **Dr. E. S. Pilli, MNIT Jaipur**

Joint Principal Coordinator

- **Prof. Sanjeev Manhas, IIT Roorkee**
- **Dr. Siba K Patro, IIT Roorkee**
- **Prof. M P Singh, NIT Patna**
- **Dr. Rajeev Arya, NIT Patna**
- **Dr S K Jain, IIITDM Jabalpur**

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