



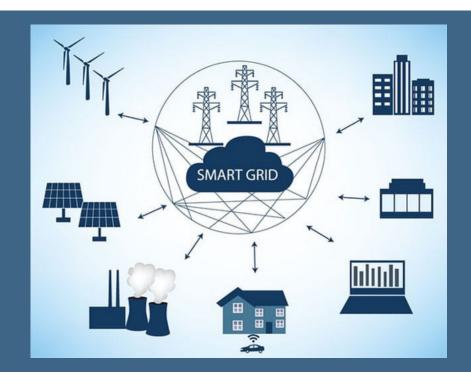






# Training Program on Smart Distribution System and Storage

06th to 10th May, 2024 | IIT Kanpur



Organized by

**National Power Training Institute, Faridabad** 

&

Department of Electrical Engineering, Indian Institute of Technology, Kanpur

## **ABOUT NPTI**

National Power Training Institute (NPTI), an ISO 9001 & ISO 14001 organization under the Ministry of Power, Government of India is a National Apex body for Training and Human Resources Development in Power Sector with its Corporate Office at Faridabad. NPTI had been providing its dedicated service for more than five decades. NPTI's committed faculties are providing excellent training in the Power Sector, which is the most important sector among various infrastructure sectors. Training provided by NPTI on Simulators has improved Plant Load Factor of Generating Units, has increased the availability of Transmission & Distribution Systems and has decreased Aggregate Technical & Commercial Losses. Thus the training being provided by NPTI is having a cascading effect in the growth of GDP and economy of the country.

#### ABOUT IIT KANPUR

IIT Kanpur is a premier government-funded institution for higher technical education in India. Consistently ranked amongst the top 5 engineering institutes in India over past several decades. IIT Kanpur offers courses in sciences, engineering, humanities and management. At IIT Kanpur, there is a strong emphasis on research in all their academic programs and they also have several specialized centers for research into various focus areas. Many of their alumni are leaders in academia and industry around the globe. The sprawling IIT Kanpur campus is located in the industrial city of Kanpur, only a few hours away from New Delhi, the Capital of India.

# OVERVIEW OF THE PROGRAM

The present-day distribution system is undergoing a major transformation through adopting smart grid concepts and distributed microgrid implementations at different levels till consumer end. The operation, control, and protection philosophy of the emerging smart grid will pose several R&D and operational challenges related to cyber security, protection, storage integration etc. This training will include talks by leading experts from industries and academics on some of the key smart distribution grid technologies and the associated challenges. The smart city prototype in IIT Kanpur, one of the fourteen pilot projects sanctioned by the Ministry of Power (MOP) in 2014, is an important milestone in the smart distribution system journey of India. The main objective of the project was to develop and implement key solutions and identify the associated challenges in implementing smart distribution system technology in Indian cities. Key components of the IIT Kanpur pilot include supervisory control and data acquisition system (SCADA), advanced metering infrastructure (AMI), and rooftop solar PV integration. Additionally, the US India collaborative for Smart Distribution System with Storage (UI-ASSIST) project, jointly funded by IUSSTF/DST and the U.S. Department of Energy is implemented to showcase Smart Distribution System & microgrids with Storage.

# **OBJECTIVE**

The main objective of this training is to familiarize the participants from utilities, industries, and R&D organizations with different concepts and developments in Smart Grid Technology. Experience gained through some of the pilot projects will also be shared.

## SESSIONS/TOPICS COVERED

The tentative topics to be covered in the training include the following:

- 1. Introduction to Smart Grid Technology
- 2. Intelligent Distribution system framework

- 3. Framework for the resilient power distribution network
- 4. Renewable Integration and Interfacing Converters
- 5. Microgrid Protection & Active Distribution System
- 6. Cyber Security in Intelligent Distribution Systems
- 7. EV and Storage Integration
- 8. Intelligent Distribution Systems Communication Systems and AMI
- 9. Consumer Indexing and Engagement
- 10. IT Enablers for Intelligent Transmission & Distribution Systems
- 11. SCADA Distribution and its components
- 12. Facilities Management System in Distribution System
- 13. Resource Adequacy
- 14. Challenges in Renewable Energy Implementations
- 15. Lab Visits
- 16. Field visits

#### TRAINING FEE DETAILS

Trainees from the other categories - INR 29,500 + GST (including accommodation)

#### COORDINATORS

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# **PATRONS**

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#### CHIEF PATRON

Prof. S. Ganesh, Officiating Director, IIT Kanpur

Dr. Tripta Thakur, Director General, National Power Training Institute

#### SCHEDULE AND VENUE

The training will be held from o6th to 10th May, 2024 at IIT Kanpur - 208016, Uttarpradesh



#### STEPS FOR REGISTRATION

Step 1: Go to Google Forms Link: <a href="https://forms.gle/dqXCDtnfXAJ2WF698">https://forms.gle/dqXCDtnfXAJ2WF698</a>

**Step 2:** Interested candidates may submit their application along with non-refundable of Rs. 34,810/- (Rs. 29,500/- + Rs. 5,310/-(GST @18%)) through SBI Collect by clicking on link:

https://www.onlinesbi.sbi/sbicollect/icollecthome.htm

# FEES PAYMENT THROUGH SBI COLLECT

Course Code: IITK/CCE/24-25/006

Course Title: Training Progarm on Smart Distribution System and Storage

Course Duration: 06.05.2024 - 10.05.2024

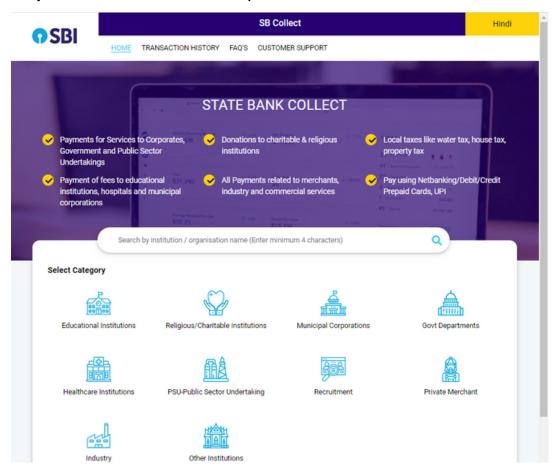
Course Fee: Rs. 34,810/- (Rs. 29,500/- + Rs. 5,310/-(GST @18%))

Scan to register

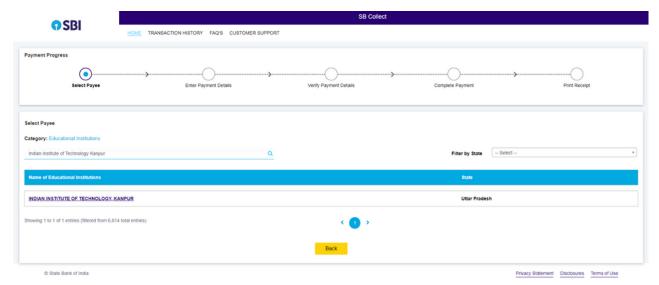


# Following are the steps for Fee Payment

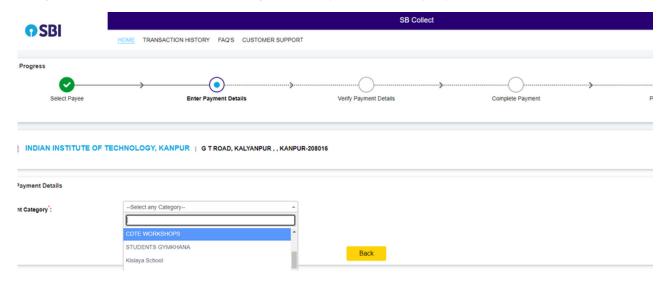
Step 1: Click on the link and tap Educational Institutions



Step 2: Select "Indian Institute of Technology, Kanpur" in Educational Institution



# Step 3: Select "CDTE Workshops" in Payment Category



# Step 4: Fill and Submit the Form

