

## UI-ASSIST Workshop

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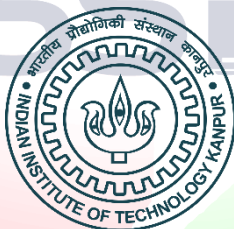
# **‘DER INTEGRATED SMART DISTRIBUTION SYSTEMS: LEARNINGS FROM INDO-US PROJECT’**

**26-27 September 2023**

**IIT Kanpur Outreach Centre, C Block, Sector-62, NOIDA**

**Organized by**

**Indian Institute of Technology Kanpur**



## Background

In the recent past, the electric distribution sector, is experiencing rapid transformation, aiming at sustainable growth of smart and resilient power system networks. Globally, the distribution systems are witnessing an increased share of renewables, storage, EV charging stations, microgrids, power electronic interfaces, intelligent sensors and controllers, automation, and smart metering at different levels in the network. This has led to the active distribution network requiring Advance Distribution Management System (ADMS) tools. The large penetration of renewable sources having intermittent/variable outputs will pose system security, reliability, and operational challenges, which need to be addressed via proper regulatory provisions, operation, control, and protection philosophy. The need for a Distribution System Operator (DSO) has been envisaged in several countries, including India, to address various challenges associated with Distributed Energy Resources (DERs) and storage-integrated smart active distribution network operation and management.

The UI-ASSIST (US-India collABorative for smart diStribution System wIth STorage) project, funded by Department of Energy on US side, and Department of Science and Technology (DST) through Indo-US Science and Technology Forum (IUSSTF) on India side under the Joint Clean Energy Research and Development Center (JCERDC), has addressed essential issues related to the adoption and deployment of active distribution networks, integrating distributed energy resources including storage in the network as well as microgrid level. The consortium from US is being led by Washington State University (WSU), Pullman, WA which has 16 organizations collaborating, including MIT, TAMU, three DOE labs, industries, and utilities, whereas that in India is led by Indian Institute of Technology (IIT) Kanpur involving 15 organizations, including 5 IITs, TERI, NTPC NETRA, Utilities, Industries and an NGO. Apart from R&D activities, this project aims at setting up several lab-level pilots and ten (10) field demonstration pilots covering rural, semi-urban, and urban settings. More details on this project can be seen at [www.uiassist.org](http://www.uiassist.org).

## Objective

The main objective of this workshop is to familiarize the participants from power utilities, industries, regulatory organization, load dispatch centers, and R&D organizations with different operational, regulatory, reliability, and security challenges that need to be addressed in deploying renewable and storage integrated smart active distribution systems. The experience gained through R&D activities and pilot deployments under the UI-ASSIST project will be shared by the consortia partners from India as well as US.

## Sessions / Topics

This workshop will disseminate the major outcomes of the UI-ASSIST project, recommendation, and way forward on various components of the smart active distribution networks covering the following topics, in addition to a panel session on “Pathways to roll out smart distribution systems”.

1. Active Distribution Network Management
2. ADMS Platform Development
3. Distribution System Operator (DSO)
4. Energy Storage
5. Microgrid Control & Protection
6. Cyber Infrastructure & Security
7. Field Deployment
8. Social & Regulatory Issues

The schedule of the workshop can be found at [www.uiassist.org](http://www.uiassist.org).

## Nomination & Workshop Registration

Nominations are invited from the power utilities, industries, regulatory organization, load dispatch centers, and R&D organizations for attending this two-day workshop at IIT Kanpur Outreach Centre, C Block, Sector-62, Noida. The filled-up nomination form duly signed by the Head of the Organization or Unit, giving details of the person attending the workshop, should reach us latest by **15<sup>th</sup> September 2023** through email or post. The nomination form can also be downloaded from the UI-ASSIST website at [www.uiassist.org](http://www.uiassist.org).

Since the seats available in the workshop are limited, the nominations received on a first come first serve basis will be considered. There is no registration charge to attend the workshop. However, the participants have to bear their travel, lodging, and boarding expenses. Further details and updates about the workshop can be found at [www.uiassist.org](http://www.uiassist.org).

## Schedule and Venue

The workshop will be held during 26-27 September 2023, at IIT Kanpur Outreach Centre, C-20/1A/8 Block C, Sector-62, NOIDA, Gautam Buddha Nagar-201309 in its Incubation Center Building Lecture Hall.



U.S. INDIA COLLABORATIVE FOR SMART  
DISTRIBUTION SYSTEM WITH STORAGE  
Evolving future energy distribution grids  
www.uiassist.org



## Nomination Form

### UI-ASSIST Workshop on 'DER INTEGRATED SMART DISTRIBUTION SYSTEMS: LEARNINGS FROM INDO-US PROJECT'

26-27 September 2023

IIT Kanpur Outreach Centre, C Block, Sector-62, NOIDA

Name: \_\_\_\_\_

Qualification: \_\_\_\_\_

Designation: \_\_\_\_\_

Organization: \_\_\_\_\_

Gender: ☐ Male ☐ Female ☐ Transgender

Correspondence Address: \_\_\_\_\_

\_\_\_\_\_ PIN: \_\_\_\_\_

Phone: \_\_\_\_\_ Mobile: \_\_\_\_\_

E-mail: \_\_\_\_\_

#### Category

☐ Power Utility

☐ Regulatory Organization

☐ Others (Please specify)

☐ Industry/R&D Organization

☐ Load Dispatch Center

(Signature of Participant)

Forwarded

(Head of the Organization/Unit)  
Signature with seal

## **Coordinators**

**Dr. Abheejeet Mohapatra**

Department of Electrical Engineering  
Indian Institute of Technology Kanpur  
Kanpur (India) - 208016

Mobile: + 91–8052589907

E-mail: [abheem@iitk.ac.in](mailto:abheem@iitk.ac.in)

**Dr. Ankush Sharma**

Department of Electrical Engineering  
Indian Institute of Technology Kanpur  
Kanpur (India) - 208016

Mobile: + 91–9458668705

E-mail: [ansharma@iitk.ac.in](mailto:ansharma@iitk.ac.in)