



इलेक्ट्रॉनिकी एवं
सूचना प्रौद्योगिकी मंत्रालय
MINISTRY OF
ELECTRONICS AND
INFORMATION TECHNOLOGY



ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP) AI-Driven Assessment and Mitigation of EV Charging Infrastructure Impacts on Distribution Networks

(30th November 2026 to 10th December, 2026)

Jointly Organized by

Electronics & ICT Academy, NIT Warangal

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National Institute of Technology Tiruchirappalli.

Sponsored by

Ministry of Electronics and Information Technology (MeitY), GoI

Preamble:

The Ministry of Electronics and Information Technology, Government of India has instituted seven Electronics and Information & Communications Technology (ICT) Academies of which, the academy of NIT Warangal is one. This academy's role is to offer Faculty Development Programmes in standardized courses and emerging areas of Electronics, Information Communication Technologies, training & consultancy services for Industry, Curriculum development for Industry, CEP for working professionals, advice and support for technical incubation and entrepreneurial activities.

About the FDP:

The increasing adoption of Electric Vehicles (EVs) is significantly impacting power distribution networks. Large-scale EV charging can cause voltage fluctuations, transformer overloading, feeder congestion, increased losses, and power quality issues. Artificial Intelligence (AI) offers effective solutions for assessing, forecasting, and mitigating these challenges through intelligent monitoring, optimization, and control strategies. This Faculty Development Programme (FDP) provides participants with a comprehensive understanding of EV charging infrastructure, its impact on distribution systems, and AI-driven mitigation approaches. Through expert lectures, simulation tools, practical case studies, and emerging smart grid technologies, the programme aims to equip participants with the skills needed for sustainable EV-grid integration.

Major Course Content:

The FDP aims to disseminate knowledge in the following areas and explore potential research opportunities within these fields.

- ❖ Fundamentals of EV Charging Infrastructure
- ❖ Challenges in distribution network operation
- ❖ Impact of EV Charging on Distribution Networks
- ❖ AI Techniques for EV Impact Assessment
- ❖ AI-Driven Mitigation Strategies
- ❖ Vehicle-to-Grid (V2G) and Grid Services
- ❖ Emerging Research Trends
- ❖ Cybersecurity in EV charging infrastructure
- ❖ Future smart mobility ecosystems
- ❖ Hands-on Sessions

Details of FDP

- The 10-day training will be conducted by a team of experts from both India and abroad, possessing extensive experience in the theme of FDP.
- **Mode of Conduction:** ONLINE.
- **Session Timings:** 10.00 AM – 12.00 PM & 2.30 PM - 4.30 PM

Sunday: No session

- The training will include 28 hours of Theory session and 12 hours of Lab session with Expert-led live online Hands-on learning & Interactive Query Sessions.

E-certificates will be given to participants who have attended more than 70% of the FDP sessions and complete the given online assessments during FDP

Who Can Participate?

Faculty members, research scholars of recognized universities from India and abroad, and industry personnel. Selection will be made on the first-come-first-serve basis to a maximum number of 100.

Registration Fee

Faculty/Research Scholars	Rs. 500/-
Industry participants	Rs. 2250/-

Registration Process

The registration fee should be paid through bank transfer or UPI.

The account detail for this purpose is as follows:

Account Name: Electronics & ICT Academy NITW

Account No: 62423775910

IFSC: SBIN0020149

**Bank and Branch: SBI, NIT(REC)
Warangal**

or

**Scan QR code for payment
using UPI**



After the successful payment, take snapshot of payment proof with the transaction reference number, which is to be uploaded in online registration form.

- Click the link below to proceed the registration
- <https://forms.gle/qd1cSYFqHiDFm4pw7>
- The online meeting link for FDP will be sent to the selected candidates one day before the FDP.

Registration deadline: 8th December 2026 11:59 PM (IST)

About NIT Tiruchirappalli

National Institute of Technology, Tiruchirappalli (NITT), is one among the premier Institutions of India and is well known for its high standards in teaching and research. It offers 10 Undergraduate and 23 Postgraduate programmes in the disciplines of Engineering, Science, Architecture and Management. It has been declared as an Institute of National Importance by the Government of India under NIT Act. NITT retained its 1st position amongst its 31 counterparts in the country in the National Institutional Ranking Framework (NIRF) Ranking (Engineering) released by the Ministry of Education, Govt. of India and also found place in top 10 engineering colleges in the country. National Institute of Technology, Tiruchirappalli (NITT) stands out as a hub of academic excellence and innovation, attracting talented students and faculty from across the nation. With a sprawling campus of over 800 acres, NITT is equipped with state-of-the-art infrastructure, cutting-edge laboratories, modern learning facilities, and industry partnerships to address global challenges.

About EEE Department, NIT Tiruchirappalli:

The Department of Electrical and Electronics Engineering, NIT, Tiruchirappalli was started in the year 1964. It offers one Under-Graduate programme (B.Tech.), two Post-Graduate programmes (M.Tech. in Power Systems and Power Electronics) and also research programmes (M.S. and Ph.D.) in the various fields of Electrical and Electronics Engineering. After the institute became NIT, the department has grown not only in terms of student and faculty strength, but also in improving the laboratory facilities for the teaching and research purposes. Thus, the department has dedicated and state of the art teaching / research laboratories. The department is recognized for excellence in research (First Department in NIT-T to be accorded QIP status for Ph.D. programme), teaching and service to the profession. The faculty members have strong sense of responsibility to provide the finest possible education for both graduate and undergraduate students. The academic strength of the faculty is reflected by the alumni, many of whom are in the top echelons of industry and academia both in India and abroad.

About NIT Warangal:

National Institute of Technology, Warangal, is the first among 17 RECs set up as a joint venture of the Government of India and the state government. Over the years, the college has established itself as a premier Institute imparting technical education of a very high standard, leading to B. Tech degrees in various branches of engineering, M. Tech., and Ph. D. Programmes in various specializations. For more details about NITW, explore www.nitw.ac.in

About EED NIT Warangal:

The Department of Electrical Engineering, NITW established in 1959. The department has been actively engaged in teaching and research in diverse fields of Electrical Engineering with excellent faculty. The department offers Under Graduate Programme in Electrical and Electronics Engineering and Post Graduate Programmes in "Power Electronics & Drives", "Power Systems Engineering", "Smart Electric Grid", "Control & Automation" and also offers Ph.D. Programme in Electrical Engineering. The department has well-equipped state-of-the-art laboratories and dynamic group of faculties with profound experience in academics, research and industry collaboration.

Experts/Speakers:

- **Dr. Chandrasekhar Perumalla**, IIT Bhubaneswar
- **Dr. Chinmaya K A**, IIT BHU
- **Dr. R. Gnanadass**, Puducherry Technological University, Pondicherry.
- **Dr. Allabaksh Naikodi**, Olectra Greentech Ltd, Hyderabad.
- **Dr. Prashant Vivek Patil**, GE Vernova Bengaluru
- **Dr. Naveen Kumar Yalla**, IIT BHU, Varanasi
- **Dr. M. Venkata Kirthiga**, NIT Tiruchirappalli
- **Dr. P. Srinivasa Nayak**, NIT Tiruchirappalli
- **Dr. Dogga Raveendhra**, NIT Warangal
- **Mr. Babu**, TNEB.
- **Mr. Kandula Pavan Kalyan**, OPAL RT, Bengaluru
- **Mr. Aditya Krishna**, OPAL RT, Bengaluru
- **Dr. Indrajit Sarkar**, NIT Rourkela
- **Dr. Vipin Das**, Robert Bosch, Coimbatore
- **Mr. Chandrasekar**, Robert Bosch

Course Coordinators:

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