

## ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP) ON

# ROLE OF POWER ELECTRONICS & ADVANCES IN INFRASTRUCTURE FOR E-MOBILITY IN INDIA



(11th - 19th July, 2022)

## Organized by

E & ICT Academy & Department of Electrical Engineering, NIT Warangal
In Association With

Department of Electrical Engineering, Malaviya National Institute of Technology Jaipur (Sponsored by Ministry of Electronics and Information Technology (MeitY), GOI)

#### **Preamble:**

Electronics & ICT Academy was set up at NIT Warangal with financial assistance from MeitY, Gol. The role of academy is to offer faculty development programmes in 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.

This FDP is designed to address research advancements in Power conversion topologies and applications in the industry and to various zonal professionals'/students/academicians encourage towards research and for their Academic Quality Improvement too. This course will offer a unique opportunity to all the participants in the relevant topics in Real Time Power Electronic systems and its applications through theoretical sessions and simulation plus laboratory-based experiments and demonstrations. It is due to development of switching devices, magnetic components, control techniques, computational methods, DSP/FPGA controllers, etc. Applications of power electronics can be found in several areas like industry, transportation, medical, telecommunication, residential, energy systems, etc. Certain low and high power switching converters are developed in these areas. Also, this FDP aims at giving scope for future research.

**Objectives:** FDP aims at giving scope for future research.

- Solar Powered Electric Vehicle
- AI-based adaptive control technique for grid integrated Solar Energy Conversation System
- EV integration challenges to power systems in the vicinity of renewable resources
- Robust control of Two-wheeler EV Drive Train
- EV Charging Infrastructure Design
- Advanced control concept in power converters
- Power Converters for Electric Vehicle
- LED Lighting Systems in EVs

## **Registration Fee Particulars:**

Faculty and Research Scholars	Rs. 500 /-
Industry Participants	Rs. 1500/-

Participants are required to pay the Registration Fee Online using the following NEFT transfer details:

Account Name : Electronics & ICT Academy NITW
Account No : 62423775910
IFSC code : SBIN0020149

**Resource Persons:** Young & Energetic eminent & finest Researchers & Professors from IIT Kanpur, IIT Roorkee, IIT Jodhpur, IIT Patna, SIT Singapore, other International Universities NIT Warangal, MNIT Jaipur & Industry experts etc...

Bank and Branch: State Bank of India, NIT(REC) Warangal

**Eligibility:** Faculty/Ph.D scholars of Electrical Engineering/allied disciplines & Industry personnel.

**How to apply:** Participants are required to apply through online registration form by clicking on the following link: <a href="https://forms.gle/bJdNinhUXghRywiz6">https://forms.gle/bJdNinhUXghRywiz6</a>

#### **Selection Criteria:**

Selection will be done based on first-come-first-serve basis to a maximum number of 100 (hundred). The list of selected participants will be intimated through e-mail. In case a candidate is not selected, the Online/DD payment will be sent back. Candidates will be issued satisfactory certificates on successful completion of the course. Reservations are followed for selecting candidates as per GOI norms.

#### **Important dates:**

Last date for Application with fee: 08<sup>th</sup> July 2022. Selection List by Email: 09<sup>th</sup> July 2022.

## **About NITW, EE Department, Warangal:**

NIT Warangal, formerly known as Regional Engineering College was established in 1959. Over the years it has developed into a premier institute of higher learning and is ranked among the top technical education institutions in India. There are 14 Departments offering eight undergraduate and 32 post-graduate programmes besides doctoral programmes. About 5000 students across the country and about 500 international students study on the campus. Its R & D activities have gained momentum with funding/MoU from governmental agencies/industries.

The Department of Electrical Engineering was established as one of the major departments of NITW, in the year 1959. It offers B.Tech in Electrical & Electronics Engineering, M.Tech program in Power Electronics & Drives and Power Systems and Ph.D program. Warangal is known for its rich historical and cultural heritage. It is situated at a distance of 140Km. from Hyderabad. Warangal is well connected by rail and road. National Institute of Technology campus is 2 Km. away from Kazipet junction and 12Km. away from Warangal station.

## **About MNITJ, EE Department, Jaipur:**

MNIT Jaipur is is one of the premier NITs, designated with the status of "Institute of National Importance". The institute was established in 1963, and its campus spread over 325 acres of lush green area in the central location of Jaipur city. The institute offers undergraduate and postgraduate courses (B.Tech, M.Tech./ MBA/ M.Sc. & Ph.D.) in leading fields of engineering, technology, architecture, management & sciences. Through the internationally renowned faculty, laboratories with state-of-the-art equipment's and excellent infrastructure, the institute is actively engaged in research, consultancy and developmental activities, besides imparting regular teaching.

The **Department of Electrical Engineering** is one of the oldest departments of the institute, offering a fine blend of experience and innovation in teaching. Presently it offers B.Tech in Electrical Engineering, M.Tech in Power System Engineering, Power Electronics and Drives, Power System Management and Ph.D. program. Having strong collaborative framework with reputed universities in India and abroad, the department offers ample opportunities for individual growth.

## **Coordinators:**

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