

# ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP)

# **Artificial Intelligence and ICT application to Power System Protection**

(18<sup>th</sup> - 27<sup>th</sup> July, 2022) Organized by



Silver Jubilee Year

E & ICT Academy & Department of Electrical Engineering, NIT Warangal in association with

Gayatri Vidya Parishad College of Engineering (Autonomous), Visakhapatnam

(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, GOI. 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.

#### **About the FDP:**

This FDP is designed to address research advancements in the area of Power system protection, applications of Artificial Intelligence (AI) and Information and Communications Technologies (ICT) in power system protection schemes and to encourage various researchers/students/academicians towards research and for their Academic Quality Improvement. This course will offer a unique opportunity to all the participants in the relevant topics like various protection schemes and algorithms for Digital Protection of Power System. Also provides the latest Protection schemes for Distributed Generators (DGs), micro grids and smart grids. Provides the advanced testing equipment in Power System protection and various Modern AI technologies. Discussion of state-of-art AI technologies & ICT to power system protection in recent times in several areas like power industry, smart grids, micro grids etc. Also, this FDP aims at giving scope for future research.

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

- Latest algorithms for digital power system protection
- Advanced protection techniques for DG, SG and MG
- Advanced methods for testing of relays
- Modern AI techniques and its applications
- Role of ICT in power system
- Applications of ICT to power system protection

## **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:

**Online Transfer Details** 

: Electronics & ICT Academy NITW Account Name

: 62423775910 **Account No** IFSC code : SBIN0020149

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

Resource Persons: Young & Energetic eminent & finest Researchers & Faculty from Institute of high repute such as International Universities, IITs, NITs, IIITs & Industry experts.

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: https://forms.gle/15dPwanE8C5TnpNu7

#### 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 amount paid in Online / DD mode will be sent back. Candidates will be issued 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: 14th July 2022.

: 16 <sup>th</sup> July 2022. Selection List by Email

## **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. programme in Power Electronics & Drives and Power Systems and Ph. D. programme. Warangal is known for its rich historical and cultural heritage. It is situated at a distance of 140 Km. from Hyderabad. Warangal is well connected by rail and road. National Institute of Technology campus is 2 Km. away from Kazipet junction and 12 Km. away from Warangal

#### About GVPCE(A), EEE Department, Visakhapatnam:

Gayatri Vidya Parishad (GVP) has been established in the year 1988 as an educational trust by a group of eminent educationists, academicians & industrialists to empower the young generation through high quality technical education. The Engineering education by GVP society was first originated by establishing Gayatri Vidya Parishad College of Engineering (GVPCE) in the year 1996 with the divine blessings of Sadguru Sri. K. Sivananda Murthy Garu. The institute has flourished in various facets of Academics and Research by achieving the pinnacle of success. This institute is offering 10 B.Tech., 9 M.Tech., and one MCA programme under the affiliating university JNTUK, Kakinada. The college has brought in many initiatives for the benefit of students with autonomous status granted by UGC in 2009. The status of autonomy is further extended by UGC up to 2025. The institute has been reaccredited second time by NAAC with 'A' grade with CGPA of 3.47/4.0. All the eligible seven B.Tech. programmes are accredited by NBA at least twice. The institute received funds to the tune of Rs. 5 Crores under Technical Education Quality Improvement Programme (TEQIP), S.C-1.2. The college received Rs. 12 Crores from funding organizations AICTE / DST / NBHM / ARB etc. towards 45 R&D projects. The institute encourages collaborative learning between industry and academia as a means of reinforcing its curriculum with practical and real world experiences.

The Department of Electrical & Electronics Engineering (EEE) was established in the year 1996. The department offers B.Tech. in EEE programme with an intake of 120 students and two postgraduate programmes in 'Power System & Control Automation' and the other in 'Power Electronics and Drives' with an intake of 18 each respectively. The department undertakes consultancy projects for industries and actively involved in the various research projects worth Rs. 2.63 Crore funded by MNRE, AICTE, HBL Hyderabad and other organizations. The department was accredited by NBA for 4 times with its recent accreditation in 2019 for 3 years. JNTU- Kakinada has recognized the department as a Research Center. Highly qualified and experienced faculty with 8 doctorates and 12 pursuing Ph.D. from reputed institutes are the strength of the department. The Department has 10 state of the art laboratories with a total investment of more than Rs. 3.5 Crores.

Chief Patron: Prof. Dr. Ing. P. S. Rao, President, GVP Chairman: Prof. Dr. A. B. Koteswara Rao, Principal, GVPCE(A)

Dr. M.Sailaja Kumari, Professor & Head, Department of EE, NIT Warangal - 506004. Email: sailaja@nitw.ac.in Phone: 08702462235.

Dr. K.Narasimha Rao, Professor, Department of EEE & Dean, Acad. (PG), GVP College of Engineering (A), Visakhapatnam-530 048.

Email: kolipaka.narasimha@gvpce.ac.in Phone: 9652866831.

Co-Coordinator:

Dr. O.V.S.R. Varaprasad

Assistant Professor, Department of EEE, GVP College of Engineering (A), Visakhapatnam.

Email: varaprasad.oruganti@gvpce.ac.in, Phone: 9948797712