#### **About Workshop**

The basic objective of this one-day workshop with hands on training is impact the knowledge of Intelligent Electronic devices with digital Communication is the future of High Voltage (HV) substation automation, protection, and control. It not only offer ease of diagnostics but acts fast to isolate healthy feeders from faulty ones. The effect of this digital protection technology is being appreciated by many utilities and industries for the benefit it offers to them and looks to be the future. Some of the utilities are replacing their secondary copper wires with Fibre Optics (FO) and Ethernet wires as they want to load the cable trays less and identify the FO better than the secondary copper wires. Conventional relays are being replaced with Intelligent Electronic Devices (IEDs) during asset management replacement program. Switchyard equipment such as instrument transformers filled with oil and SF6 gas are being replaced with Non-Conventional Instrument Transformer (NCITs). Ushering new devices into the network are not without challenges. The high voltage substation control system is considered as one of the main challenges to reach the optimum operating system. In the past, it's difficult to re-install the protection or control relay by a different manufacturer, to avoid the log-off the communication with the substation control system. The International Electro-Technical Commission (IEC) 61850 protocol is a new technique for the communication and remote control of the Substation Automation System (SAS). IEC 61850 protocol is a more flexible communication system for control, fast for operation, high accuracy measurements and interoperability between many different manufactures Intelligent Electronic Devices (IEDs).

#### Topics to be covered

- The latest Information and communication Technologies used in Automation and control
- Role of IEDS in Substation automation
- Relay protection with hands on training
- Bay control and process control in SS

#### **About VIT**

VIT was established with the aim of providing quality higher education on par with international standards. It persistently seeks and adopts innovative methods to improve the quality of higher education on a consistent basis.The campus has a cosmopolitan atmosphere with students from all corners of the globe. Experienced and learned teachers are strongly encouraged to nurture the students. The global standards set at VIT in the field of teaching and research spur us on in our relentless pursuit of excellence. In fact, it has become a way of life for us. The highly motivated youngsters on the campus are a constant source of pride. Our Memoranda of Understanding with various international universities are our major strength. They provide for an exchange of students and faculty and encourage joint research projects for the mutual benefit of these universities. Many of our students, who pursue their research projects in foreign universities, bring high quality to their work and esteem to India and have done us proud. With steady steps, we continue our march forward. We look forward to meeting you here at VIT.

#### **About School of Electrical Engineering**

The School of Electrical Engineering (SELECT) has over 93 faculty members who pursued their UG, PG and Doctoral degrees from top-notch universities. The faculty members are consistently performing well in teaching and research. Faculty members and students frequently receive awards, laurels and prizes for outstanding research contributions in their respective fields.

The school offers B.Tech. (Electrical and Electronics Engineering), B.Tech. (Electronics and Instrumentation Engineering), M.Tech. (Power Electronics and Drives), M. Tech. (Control and Automation), Ph.D and Integrated Ph.D in Engineering. Both B.Tech. and M.Tech. programmes attract the Intelligent students from the country and abroad. The B.Tech. Electrical and Electronics Engineering and B.Tech. Electronics and Instrumentation Engineering Programmes are accredited by the Engineering Accreditation Commission of ABET. All UG & PG programmes of the school are accredited by the Institution of Engineering and Technology (IET), U.K.

The placement record of the school has always been impressive. Almost 100% of the students secure job from the campus placement and many of them are recruited in core companies. We encourage our students to carry out industry based projects during their B.Tech and M.Tech degrees. The School has state-of-the art laboratories in almost all the areas of Electrical, Electronics and Instrumentation Engineering. The School has the latest simulation tools to cater various specializations and is equipped with facilities for measurement, characterization and synthesis of experimental as well as theoretical results. SELECT has industry sponsored advanced laboratories for performing world class research and consultancy. Danfoss Advance Drives Lab, Schneider Electric Smart Energy Monitoring Lab, Fluke Testing and Calibration Lab, Q-Max Automated Test Engineering Lab (Alumni Sponsored Lab) and NxP Semiconductors, India, have established Centre of Excellence for students R&D activities under the guidance of faculty members and industry experts.

The students are encouraged to take advantage of the growing opportunities by incorporating an international internship experience in their final year undergraduate and postgraduate education. Students are also motivated to opt twin degree program with various reputed universities across the globe. Every year, students get scholarships to do their final year projects abroad under the Semester Abroad Program (SAP).

# Organizing Committee

Chief Patron

Dr. G. Viswanathan, Chancellor

### Patrons

Shri. Sankar Viswanathan, Vice President Dr. Sekar Viswanathan, Vice President Shri. G. V. Selvam, Vice President Dr. Rambabu Kodali, Vice Chancellor Dr S. Narayanan, Pro-Vice chancellor Dr. T. Jayabarathi, Registrar

### **Organizing Chair**

Dr. Mathew Mithra Noel, Professor & Dean School of Electrical Engineering

### **Organizing Co-Chair**

Dr. N. Amutha Prabha, Assoc. Dean & Professor School of Electrical Engineering

#### Convener

Dr. I. Jacob Raglend, Professor & HOD (EEE), School of Electrical Engineering

### **Coordinators**

Dr. K. Ravi, Professor, School of Electrical Engineering, VIT, Vellore +91-9486940357, k.ravi@vit.ac.in

Dr. J. Belwin Edward, Professor, School of Electrical Engineering, VIT, Vellore +91-9994911487, jbelwinedward@vit.ac.in



### **School of Electrical Engineering**

One day workshop with hands on training on "Substation Automation and Relay Protection Using Communication Control" SARPUCC-2022

### **19 OCTOBER 2022**

## REGISTRATION FORM

(Capital Letters only)

Full Name
Sex :
Designation :
Organization:
Address :
Phone No.:
Mobile No.:
E-mail :
D.D. No.:
Amount : Date:

Place :

Date :

Signature of Participant

## **Resource Persons:**

Technical lectures and Hands on training will be provided by resource persons from IITs, NITs and leading industry Meggar, Smart Grid ICT solutions.

### **Important Date**

Last date for registration: 17<sup>nd</sup> October **2022** 

## Who should attend?

- Faculty members
- Engineers from industries
- UG,PG students and Research scholars from **EEE,ECE,CSE,IT**

## **Registration Fee**

- Faculty/Industry Experts/Scientists: Rs. 800/-
- Students /Research Scholars: Rs. 500/
- Registration fee includes 18% GST

Prospective participants are requested to register for the workshop through the following web link.

## https://events.vit.ac.in/

After registration, registration acknowledgement receipt should be sent to the email id: k.ravi@vit.ac.in. (Or)DD in favour of 'VIT ' payable at Vellore, Tamil Nadu.

Certificate will be issued to all registered participants. Interested members are requested to fill up the registration form and send it to the following address with demand draft drawn in favour of VIT payable at Vellore, Tamil Nadu.

## **Address for Correspondence**

Dr.K.Ravi. Co-ordinator-SARPUCC-2022 Professor, Department of Electrical Engineering, School of Electrical Engineering, VIT, Vellore -632014 **Mobile: +91-**9486940357



### One day workshop with hands on training on

## "Substation Automation and Relay Protection Using Communication Control"

## SARPUCC-2022

## **19 OCTOBER 2022**

Organized by Department of Electrical Engineering School of Electrical Engineering VIT Vellore -632 014

