

## About Workshop

The basic objective of this one-day workshop is impact the knowledge of d Renewable energy Grid integration issues and challenges. Recent interest in the integration of renewable energy sources (RES) into the power grid has raised concerns in synchronization of the various RES. Grid variables such as voltage, phase angle and frequency should be continuously monitored to guarantee correct operation and synchronization of power converters connected to the power grid. Numerous synchronization methods have been presented over the years to address issues such as unbalanced condition and frequency variation.

Renewable energy sources like wind, sun, and hydro are seen as a reliable alternative to the traditional energy sources such as oil, natural gas, or coal. Distributed power generation systems (DPGSs) based on renewable energy sources experience a large development worldwide, with Germany, Denmark, Japan, and USA as leaders in the development in this field. Due to the increasing number of DPGSs connected to the utility network, new and stricter standards in respect to power quality, safe running, and islanding protection are issued. As a consequence, the control of distributed generation systems should be improved to meet the requirements for grid interconnection in different manufactures Intelligent Electronic Devices (IEDs).

## 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

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**School of Electrical Engineering**

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

### Organizing Co-Chairs

**Dr. K. Sathish Kmar, Professor & HOD (EEE),**  
**Department of Electrical Engineering., SELECT.**

### Conveners

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### • Topics to be covered

- Introduction of Indian power grid
- Grid synchronisation and islanding
- Microgrid
- Renewable energy integration issues
- Grid Connection

### Resource Persons:

Technical lectures and Hands on training will be provided by resource persons from IITs, NITs and leading industry Public sectors, NPTI etc.

### Important Date

Last date for registration: 13<sup>nd</sup> September 2023

### Who should attend?

- Faculty members
- Engineers from industries
- UG,PG students and Research scholars from Engineering colleges, Polytechnics and Technical Universities etc

### Registration Process ?

- Prospective participants are requested to register for the FDP through the following web link.
- <https://events.vit.ac.in/>
- Certificate will be issued to all registered participants.

### Registration Fee

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

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### Address for Correspondence

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**One day National workshop on**  
**“Renewable Energy with Grid Integration:**  
**Issues and Challenges”**

**REGIIC-2023**

**15 SEPTEMBER 2023**

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



**VIT - A Place to Learn, A Chance to Grow**