

National Level Workshop on "Exploring Power Distribution Infrastructure and Operations: A Field Study"

8th and 9th January 2026

Organized by

School of Electrical Engineering Vellore Institute of Technology Vellore – 632 014



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VIT, Vellore

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Resource Persons:

Dr. Vijayakumar D, Professor

Dr. Palanisamy K, Professor & Dy.

Director EM & Projects

School of Electrical Engineering

VIT, Vellore

Contents of the Program

- Layout of present distribution system
- Substation components
- Protection and switchgear mechanisms
- Metering data collection infrastructure
- Distributed generations
- Utility electricity billing schemes
- Several field visits inside VIT to understand the real-time challenges in the operation of the huge distribution network.

Target Audience:

- UG and PG students
- Research scholars
- Faculty members

Registration:

The participants are requested to register for the workshop through the following link:

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

Registration fee (Including GST):

• Faculty Members: Rs. 600/-

• Research Scholars: Rs. 500/-

• UG/PG Students: Rs. 400/-

(Registration fee includes refreshments only. E-Certificate will be issued to all the registered and active participants.)

Last date for registration: 05.01.2026

About the VIT

VIT was founded in 1984 as Vellore Engineering College by the Chancellor, Dr. G. Viswanathan. From its humble beginnings, the institution has grown exponentially to that of more than 40,000 students. It was conferred the University status in 2001 in recognition of its excellence in academics, research, and extracurricular initiatives. Currently, VIT has 6 campuses - in Vellore, Chennai, Amaravati (AP), Bangalore, Bhopal (MP) and Mauritius. VIT has been consistently ranked among the best institutions of the country and is aspiring to emerge as a global leader. The National Institutional Ranking Framework (NIRF) of the MHRD, Government of India, has identified VIT as the best Private Engineering Institution in India. With students from all the states of India and from more than 50 countries, the cosmopolitan VIT provides an appropriate ambience for holistic learning and comfortable living. Sports, games and cultural activities are an integral part of student life on campus. VIT holds an exemplary placement record consistently placing more than ninety percentage of the students in good companies. The VIT's international linkages provide ample opportunities for students and faculty to gain global exposure. VIT alumni, spread across the world, are serving the mostadyanced as well as the most deprived.

About the SELECT

The School of Electrical Engineering (SELECT) offers B.Tech. (Electrical and Electronics Engineering). B.Tech. (Electronics and Instrumentation Engineering), M. Tech. (Power Electronics and Drives) and M. Tech (Control and Automation), M.S. by Research and Ph.D. in Engineering. B.Tech. (Electrical Electronics Engineering) and B.Tech. and (Electronics Instrumentation Engineering), is accredited by the Engineering Accreditation Commission of ABET.

All UG & PG programs 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 get job from the campus placement and many of them get it in core companies every year. Every year, students get scholarships to do their final year projects abroad under the Semester Abroad Program (SAP).

Schneider Electric, India and NxP Semiconductors, India, have established Centre of Excellence for students R&D activities under the guidance of faculty members and Industry experts. The school has signed MoUs with many foreign Universities, research organizations and Industries from where students get benefits for their R&D Work / Projects from the MoUs.

About the workshop

Electric power is vital for economic growth, with distribution systems playing a key role in delivering reliable and efficient electricity to consumers. Traditional networks, though extensive, are often weakly meshed and highly dynamic, making them less efficient in today's energy landscape. With the rise of distributed energy resources, automation, and renewable integration, distribution systems are evolving into smart, active networks.

VIT has grown into a premier institution with over 40,000 students. Its diverse academic, non-academic, and residential zones demand nearly 1,00,000 units of electricity daily. To meet this, VIT has developed a modern distribution infrastructure with advanced substations, protection systems, distributed generation, and backup supplies—continuously upgraded for reliability and sustainability.

This workshop offers participants a comprehensive view of this infrastructure. The course covers substation design, protection and switchgear mechanisms, metering infrastructure, billing schemes, and distributed generation. Field visits to substations and facilities provide hands-on exposure to real-world challenges. This program equips participants with technical expertise, practical insights, and problem-solving skills essential for careers in power engineering and smart grid development.