

Resource Persons

- **Dr. Vignesh V**
Assistant Professor, Department of Electrical Engineering, IIT Tirupati
- **Dr. Raseswari Pradhan**
Assistant Professor, Department of Electrical Engineering, VSSUT Burla, Odisha
- **Dr. Arnab Ghosh**
Assistant Professor, Department of Electrical Engineering, NIT Rourkela
- **Dr. Amit Kumar**
Assistant Professor, Department of Electrical & Instrumentation Engineering, Thapar University, Patiala
- **Dr. Subhashree Choudhury**
Associate Professor, Department of EEE, SOA University, Bhubaneswar
- **Dr. Shivam Gautam**
Associate Professor, TIFAC-CORE, VIT, Vellore.

Topics to be covered

1. Power quality performance analysis of Direct Power Control of Active Front End Rectifier
2. Multilevel Converters in Electric Vehicles
3. Empowering Microgrids through Energy Storage System Technologies
4. Islanding detection techniques in Inverter Based DG Systems
5. Smart Grid

Registration Process

- Prospective participants are requested to register for the FDP through the following web link.
<https://forms.gle/eCQM4GSHnMBLoh6MA>
- Certificate will be issued to all registered and attended participants. (Attendance is mandatory for all sessions.)

Registration Fees

No registration fee

Important Dates

Last Date for Registration 5th August 2023

Organizing Committee

Chief Patron

Dr. G. Viswanathan, Chancellor

Patrons

Shri. Sankar Viswanathan, Vice President
Dr. Sekar Viswanathan, Vice President
Dr. G. V. Selvam, Vice President
Dr. Rambabu Kodali, Vice Chancellor
Dr. Partha Sharathi Mallick, Pro Vice Chancellor
Dr. T. Jayabarathi, Registrar

Organizing Chair

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

Organizing Co-Chairs

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

Dr. Sathishkumar K, Professor & HOD (EEE), School of Electrical Engineering

Dr. Ponnambalam P, Professor & HOD (EPE), School of Electrical Engineering

Dr. Jaganatha Pandian B, Assoc. Professor & HOD (CA), School of Electrical Engineering

Dr. Rajini GK, Professor & HOD (EI), School of Electrical Engineering

Conveners

Dr. Sonam Shrivastava, Assistant Professor, School of Electrical Engineering, VIT, Vellore
+91-7978117961, sonam.shrivastava@vit.ac.in

Dr. Satyajit Mohanty, Associate Professor
School of Electrical Engineering, VIT, Vellore
+91-7008185936, satyajit.mohanty@vit.ac.in



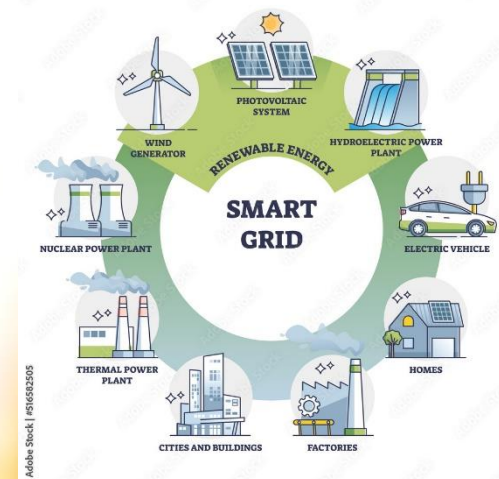
VIT[®]
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

3-days Online Faculty Development Program

on

Control & Power Management Strategies for Hybrid Microgrid CPMHM-2023

7th-9th August 2023



Organized by

School of Electrical Engineering
VIT Vellore –632 014

About the Institution

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. The Institution of

Engineering and Technology (IET), U.K. accredit all UG & PG programs of the school.

The placement record of the school has always been impressive. Almost 100% of the student's 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).

About CPMHM-2023

The future power systems will be more automated and disaggregated by connecting distributed energy resources. The coordination between power generators and demand needs information transfer through a communication infrastructure. The development of Virtual Power Plant (VPP), has become prominent technology to provide the flexibility required in future power systems with a high penetration level of renewables. The flexibility that a VPP can provide will mainly depend on the development of hierarchical

control methods for the VPP. The hierarchical control method for a VPP is able to simplify the complexity of heterogeneous network assets in terms of active and reactive power controls at the PCC. The virtue of hierarchical control lays in the division of control works at different control layers according to the timescale of target services; thus, this conceptual control scheme enables a group of sources to provide a wide range of ancillary services.

The aim of this FDP is to explore the future of power system network with their advanced technologies and challenges.

