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# **ABOUT 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 35,000 students. It was conferred the University status in 2001 in recognition of its excellence in academics, research, and extracurricular initiatives. Currently, VIT has 5 campuses - in Vellore, Chennai, Amaravati (AP), Bangalore and Bhopal (MP). 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 by 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 most-advanced as well as the most deprived.



### **ABOUT SELECT**

School of Electrical Engineering (SELECT) has 98 faculty members who have done their UG and PG degrees from the top-notch universities. The school offers B.Tech. (Electrical and Electronics Engineering), B.Tech. (Electrical and Computer 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 and Electronics Engineering) and B.Tech. (Electronics and Instrumentation Engineering) 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), UK. 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 are getting it in core companies every year. The school has state-of-the-art laboratories in almost all the areas of Electrical. Electronics and Instrumentation Engineering. Every year, students get scholarships to do their final year projects abroad under the Semester Abroad Program (SAP). Danfoss Industries Pvt. Ltd. India, Schneider Electric, India and NxP Semiconductors. India, have established Centre of Excellence. 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 MoU's.





# AICTE Training and Learning Academy (ATAL) SPONSORED SIX DAYS FACULTY DEVELOPMENT PROGRAM

on DESIGN AND DEVELOPMENT OF MICRO/SMART GRID INTENDED FOR SMART CITY DEVELOPMENT AND ENHANCING E-MOBILITY (18.11.2024 to 23.11.2024)

### Coordinator

Dr.S.Albert Alexander Ph.D., PDF (USA)., SMIEEE., UGC-Raman Research Fellow Associate Professor Co-Coordinator Dr. Sonam Shrivastava

Assistant Professor



Organized By SCHOOL OF ELECTRICAL ENGINEERING VELLORE INSTITUTE OF TECHNOLOGY VELLORE 632 014, TAMIL NADU.

### **TARGET GROUP & MODE**

## **TA & ACCOMODATION**

External participants (traveling more than 20 km one side) who attend at-least 90% of the sessions shall be reimbursed with the cost of traveling. There is no provision for lodging from the end of ATAL Academy/AICTE. Accommodation will be arranged on payment basis upon prior request. However, refreshments and lunch will be provided free of cost.

## **REGISTRATION DETAILS**

Registration is free and it is limited to **50** participants. Applications will be selected on first-come-first serve basis.

## HOW TO APPLY?

For registration, use the following link: <u>https://atalacademy.aicte-india.org/login</u> Last date for registration: 10<sup>th</sup> November 2024

# **CONTACT DETAILS**

Dr.S.Albert Alexander Ph.D., PDF(USA)., SMIEEE., Chairman, IEEE PELS, IEEE Madras Section
Department of Energy and Power Electronics School of Electrical Engineering, Vellore Institute of Technology Vellore 632 014, Tamil Nadu.
Contact Numbers: 9865931597 / 7978117961
E-mail: albert.alexander@vit.ac.in
Website: www.vit.ac.in



# **OBJECTIVES**

Tomorrow's digital cities will be the product of today's dreams. Important elements in the creation of smart cities are the development of cohesive open telecommunication and software architecture, which will underpin the citizencentric applications. These applications will also be applied in areas of national interest and social need, such as E-Health, Smart Energy and E-Education. The building blocks upon which smart cities will be created include smart and renewable energy; next-generation networks; smart buildings; smart transport and smart governance. To meet the goals of smart city in supporting a sustainable high-quality lifestyle for citizens, smart city certainly needs a smart grid. In this objective, this FDP intends to address the various renewable energy and smart grid technologies support in transforming the present cities to smart cities with aid of power electronics towards enhancing emobility.

### CONTENTS OF THE FDP TO BE COVERED

**Session 1:** Development of a nano-grid structure for electric vehicle application

**Session 2:** Smart city energy planning: Integrating data and tools

**Session 3:** Performance enhancement of battery energy storage in smart/micro grid

**Session 4:** Power system planning and control for smart city

**Session 5:** Hybrid energy systems for sustainable smart city

**Session 6:** Power quality improvement techniques for smart/micro grid

**Session 7:** Smart grid design for EV applications

**Session 8:** Design of fault tolerant converters for EV applications in smart grid environment

**Session 9: Research methodology** 

**Session 10:** Artificial Intelligence methods to enhance the performance of smart/microgrid

Industrial visit, Article discussions and Innovative Teaching practices



#### **RESOURCE PERSONS** Dr.S.KUMARAVEL

National Institute of Technology Calicut

### Dr.L.ASHOK KUMAR

Principal Thiagarajar College of Engineering, Madurai



#### **Dr.K.VIJAYAKUMAR**

Indian Institute of Information Technology Design & Manufacturing, Kancheepuram



**Dr.C.CHRISTOBER ASIR RAJAN** Puducherry Technological University Puducherry



**Dr.J.BALAMURUGAN** TEDA, Government of Tamil Nadu Chennai

**Dr. BIDYADHAR SUBUDHI** Director, National Institute of Technology Warangal



**Dr.S.SENTHIL KUMAR** National Institute of Technology Trichy



**Dr.MATHEW M NOEL** Dean, School of Electrical Engineering Vellore Institute of Technology, Vellore



**Dr.S.N.DEEPA** National Institute of Technology Calicut