

### **Resource Persons for STTP**

**Dr. M. Sydylu**  
Professor, NITW  
Warangal, Telengana

**Dr. K.N.Dinesh Babu**  
Professor, VIT  
Vellore

**Dr. P. BalaKrishna**  
Sr Lead R&D Application Engineer, GE  
Hyderabad

**Dr. D.Suryanarayana**  
Professor, IIT Bombay  
Mumbai

**Er. P. Gopala Krishna**  
ADE, TSTRANSCO  
Hyderabad

**Dr. K.Sathish Kumar**  
Associate Professor, VIT  
Vellore

**Dr. M.Sudhakaran**  
Professor, Pondicherry Engineering College  
Pondicherry

**Dr. Pratim Kundu**  
Assistant Professor, IIT Mandi  
Mandi

**Er. G M Sharat Chandra**  
Chief Manager, National Load Despatch Centre  
POSOCO, Delhi

### **AICTE Sponsored**



One Week National Level Online  
Short Term Training Program (STTP)

**(Phase-II)**

On

### **RECENT TRENDS AND CHALLENGES IN POWER MARKET WITH SMART GRID TECHNOLOGY**

**28<sup>th</sup> Dec, 2020 – 2<sup>nd</sup> Jan, 2021.**

**Organized by**

**Department of  
Electrical & Electronics Engineering**



**Velagapudi Ramakrishna  
Siddhartha Engineering College  
(Autonomous)**

Accredited by NAAC with 'A' Grade, Approved  
by AICTE & Affiliated to JNTUK Kakinada  
Kanuru (V), Vijayawada-520007  
Andhra Pradesh

[www.vrsiddhartha.ac.in](http://www.vrsiddhartha.ac.in)

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### **Coordinator**

Dr. B. Srinivasa Rao, *Professor, EEE*

### **Co-coordinator**

Sri P. Venkatesh, *Assistant Professor, EEE*

### **Important Dates**

Last date for registration : 25-12-2020

Intimation of acceptance : 26-12-2020

### **Address for correspondence**

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### About The Institution

Velagapudi Ramakrishna Siddhartha Engineering College (VRSEC) is established in the year 1977 as the first self-financing institute in the composite state of Andhra Pradesh. The Institute offers 7 Under Graduate and 12 Post Graduate Programs with total intake of 1440. The institute has totally 350 faculty members with 125 Doctorates from various premier institutions. The institute has received more than Rs.10 crores amount as sponsored research grant from various research agencies.

All UG programs of the institution have been accredited 4 times by NBA. The College has been awarded Autonomous status to the courses by UGC and JNTUK, Kakinada since 2006. First time in Andhra Pradesh state, UGC extended the autonomous status for 10 years i.e. up to 2027-28 without visiting the college. The institute recognized as “Scientific & Industrial Research Organization (SIRO)” by DSIR, MST, Govt. of India since August 2017. The institute bagged All India Rank 156 given by NIRF-MHRD in the year 2020. ARIIA categorized VRSEC in rank band-A (6-25) for outstanding Innovation and Entrepreneurship Development.

### About EEE Department

The Department of Electrical and Electronics Engineering was established in the year 1977. The current intake of UG Program B.Tech (EEE) is 120 and PG Program M.Tech (Power Systems Engineering) is 18. Both UG and PG programs are accredited by NBA for a period of 6 years and 2 years respectively. The department was recognized as research center by JNTUK, Kakinada in 2017.

The department has 30 faculty members with 15 Ph.Ds. All laboratories in the department are well equipped with state of art equipment for worth of Rs.2.5 crores. The major equipment available in various laboratories is 220kV Transmission Line Simulator, HV testing Equipment, Numerical Impedance relay, Relay panel Bay control unit, SCADA, 3-Phase fault simulator with Relay coordination kit, Machine Tutor, etc. The department is also possessing licensed software such as MiPower, PSCAD, Power World Simulator, MATLAB, PSIM and PV\*Sol-Premium. A group of faculty members are working on product development like DSP based multi-function meters. In Electrical Machines Laboratory, all working tables are equipped with digital panel meters designed and fabricated by our own faculty.

### About the STTP

All the nations worldwide are investing more efforts to reduce carbon emissions and encourage more sustainable lifestyles. The energy sector is a prime example of these efforts, as the move towards using renewable and clean energy has been ongoing for over a decade. One of the many trends that have emerged in recent years is the use of smart grids. Smart grid is an electricity network system that uses digital technology to monitor and manage the transport of electricity from all generation sources to meet demand from consumers. This STTP aims to discuss the recent trends and challenges in power market, the concept of smart grid and its advantages over conventional grid. This training program provides the knowledge to the participants on smart grid technologies and developments.

### Topics to be covered

- ✓ AI applications to smart grid
- ✓ Power system protection in smart substations - The process bus system
- ✓ Integration of smart grid devices and systems for extended situational awareness
- ✓ Smart grid introduction, opportunities and challenges
- ✓ Smart grid and its research future
- ✓ Meta heuristic and bio-inspired algorithms for optimal location and sizing of RES
- ✓ Smart grid technology and innovations enabling efficient power markets
- ✓ Modern power system configuration, operation, control and resilience
- ✓ Smart grid with demand side management
- ✓ Standalone analog merging unit (SAMU) based digital substation
- ✓ Defense against blackouts

### Eligibility Criteria:

The STTP is open to faculty members of AICTE approved institutions, research scholars, persons of industry and research organizations from all over country.

### Registration Fee & Other Details

There is no registration fee for this STTP. The interested participants need to submit the online registration form through this link.

<https://forms.gle/mVT1VxEywQ8bC4ex5>



Online meeting link will be provided to all the registered participants through WhatsApp. The number of participants will be limited to 100. The E-Certificate will be provided to those participants who attend all the sessions of STTP and also qualified in online test as per the AICTE norms.