



# Sri Venkateswara College of Engineering

(An Autonomous Institution Affiliated to Anna University, Chennai)

Post Bag No. 1, Pennalur, Sriperumbudur, Kanchipuram (Dt) - 602117



## Department of Electrical & Electronics Engineering

### AICTE Sponsored International E-Conference on SMART TECHNOLOGIES IN ELECTRIC VEHICLES AND POWER GRID

STEP-2021 - 27<sup>th</sup> to 29<sup>th</sup> January, 2021

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#### ABOUT THE INSTITUTION

Sri Venkateswara College of Engineering (SVCE), a premier self-financing engineering college was started in the year 1985 and is managed by Sri Venkateswara Educational and Health Trust. The college conducts 11 B.E / B.Tech Degree Courses, 8 PG Courses in Engineering. 11 research centers approved by Anna University cater to MS (by Research) and PhD programmes. The courses are approved by AICTE and affiliated to Anna University, Chennai. The college received Autonomous status in 2016. The college is accredited by National Assessment and Accreditation Council (NAAC). The college is situated in serene environment about 37 km from Chennai and situated on the way of Chennai – Bangalore National Highway (NH4) at Pennalur, Sriperumbudur, in Kanchipuram district.

#### ABOUT THE DEPARTMENT

The Department of EEE was started in the year 1994. The post graduate program (M.E) in Power Electronics and Drives was started in 2002. The department has secured permanent affiliation with Anna University and accredited by National Board of Accreditation for the third consecutive time for five years. The Department has well equipped state-of-the-art laboratories and recognized as a research centre by Anna University. The Department has well qualified and experienced faculty and staff members of proven ability and profound skills.

#### ABOUT THE CONFERENCE

The International Conference on Smart Technologies in Electric Vehicles and Power Grid aims to provide a common platform across the industrial experts, academicians & researchers to share their knowledge and innovative research ideas in the emerging areas of Electric vehicle and Smart grid. This conference leads to the establishment of industry institute interaction in developing innovative applications and to improve the curriculum development process and quality of teaching.

#### CALL FOR PAPER:

Authors are invited to submit research papers in topics related to the theme of the conference.

#### Smart Electric Vehicles

- ❖ Power Converter Topologies for Design of EVs
- ❖ Electrical Traction Drives for EVs (BLDC, PMSM & SyRM & IM)
- ❖ Renewable Energy Sources for Electric Vehicles
- ❖ Low Carbon Vehicle-Fuel Cells
- ❖ Modeling, Simulation, Control and Analysis of Smart Electric Vehicles
- ❖ Design Optimization for Vehicle Structures
- ❖ Policy, Targets and Resource Efficiency
- ❖ Drives for auxiliary accessories in EVs

#### Smart Grid

- ❖ Low Carbon Power - Wind, Solar, Hydro etc.,
- ❖ Power system stability, Dynamics and control
- ❖ Power System Protection and Relaying
- ❖ Grid protection
- ❖ Microgrid
- ❖ Restructuring of Power System
- ❖ Smart DC Grid
- ❖ Renewable Energy Integration in Smart Grid
- ❖ Power Quality issues

#### Smart Battery Management

- ❖ Battery Management Systems (BMS)
- ❖ Energy Storage for E-mobility
- ❖ Energy Management System (EMS)
- ❖ Cell balancing, Battery state estimation
- ❖ Second life Batteries
- ❖ Batteries Thermal Management
- ❖ Electro-chemistry and Battery materials design
- ❖ Advances in Battery Technologies for Electric Vehicles
- ❖ Safety aspects of Battery Management System

#### Device Modeling, Circuits and Systems

- ❖ Hardware Security
- ❖ FPGA Design for EV and Smart Grid
- ❖ Embedded Systems & Robotics
- ❖ System on Chip (SoC) / Network-on Chip Design
- ❖ Nano-Technology, MEMS & NEMS
- ❖ Electronic Instrumentation and sensor for Electric Vehicle Technologies

#### Communication, Computing in EV and Micro grid

- ❖ Vehicular Communication Systems
- ❖ Image Processing, Information Retrieval
- ❖ Artificial Intelligence & Machine Learning
- ❖ Visualization and Computer Graphic
- ❖ Vehicle to Vehicle (V2V) communication
- ❖ Wireless Charging Technologies
- ❖ Navigation systems for Autonomous Vehicles
- ❖ Data and 'Intelligent' Design

#### Smart Technologies in EV and Smart Grid

- ❖ Cyber security issues in Smart Grid
- ❖ Cyber security issues in EV
- ❖ Vehicle to Grid (V2G) and Vehicle to Home (V2H) Technology
- ❖ Advanced Driver Assistance System (ADAS)
- ❖ ECUs control in EVs
- ❖ Sensors and Actuators for EVs

# AICTE Sponsored International E-Conference on SMART TECHNOLOGIES IN ELECTRIC VEHICLES AND POWER GRID STEP-2021

## Important Dates:

**Paper Submission Deadline** : January 22, 2021  
**Paper Acceptance Notification** : January 23, 2021  
**Submission of Final Paper** : January 24, 2021  
**Conference Date** 27<sup>th</sup> to 29<sup>th</sup> January, 2021

## Guidelines to Authors:

Paper Format: Single column (Font size : Times new Roman, 12) not exceeding six pages, in electronic pdf format  
**e-mail : step2021@svce.ac.in**

## JOURNAL PUBLICATIONS

The selected extended papers after peer review will be considered for publication in Anna University listed Annexure journal, Scopus indexed journals, Web of Science & UGC approved Journals. The publication will be considered as per the Journal norms.  
 \* Publication will be considered as per the Journal norms. (Plagiarism policy and Journal Publication charges)

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### Registration Fees

Category	National	International
Academicians, Research Scholars & Students	Rs. 1000/-	30 USD
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