

# VIDYUT

Official Newsletter

**JAN-JUNE 2021**



DEPARTMENT OF ELECTRICAL AND ELECTRONICS  
ENGINEERING

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

**NEWSLETTER**

**EDITORIAL TEAM**

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**Dr. Sudhakar K Bharatan, AHOD/EEE**

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**Ms. K S. Pavithra, Assistant Professor**

**Mr.Padmanaban Alagappan, IV<sup>th</sup> year**

**Mr.M.Adithyan, II<sup>nd</sup> year**

**Mr.S.Sabari , I<sup>st</sup> year**

**Ms.N.Harini, I<sup>st</sup> year**

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# **SRI VENKATESWARA COLLEGE OF ENGINEERING**

## **DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

### **Vision of the Institution**

To be a leader in Higher Technical Education and Research by providing the state of the art facilities to transform the learners into global contributors and achievers.

### **Mission of the Institution**

To develop SVCE as a "CENTRE OF EXCELLENCE" offering Engineering Education to men and women at undergraduate and postgraduate degree levels, bringing out their total personality, emphasizing ethical values and preparing them to meet the growing challenges of the industry and diverse societal needs of our nation.

### **Vision of the Department**

The vision of Electrical and Electronics Engineering Department is to provide a high standard of education in Electrical and Electronics Engineering so as to meet the industry standards through domain.

### **Mission of the Department**

**M1:** To create state of the art facilities such that the students excel in Electrical and Electronics Engineering education.

**M2:** To equip students with a well defined curriculum to meet the requirements of Industries and society.

**M3:** To promote a culture of research, innovation and entrepreneurship in the thrust and allied areas of Electrical and Electronics Engineering.

**M4:** To inculcate soft skills and foster ethical values and shape the total personality of the students.

### **Program Educational Objectives (PEOs) UG-EEE**

**PEO1:** Graduates of EEE transformed to engineering contributors in the fields of Electrical, Electronics and Computer Engineering.

**PEO2:** Succeed in becoming entrepreneurs through human centered design thinking and innovation.

**PEO3:** Become eligible to pursue higher studies in their chosen areas of engineering or management

**PEO4:** Effective, conscious and ethical team player in the field of green energy management and sustainability

### **Program Outcomes (POs) for UG-EEE**

1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first

principles of mathematics, natural sciences, and engineering sciences.

3. Design/development of solutions: Design solutions for complex engineering problems and design system components processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. Modern tool usage: Create, select and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and lead.
12. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

### **Program Specific Outcomes (PSOs) for UG-EEE**

**PSO1:** The ability to build, implement, test and maintain analog and/or digital systems and implement Electronic control of Drives for Industrial automation and Electric Vehicle.

**PSO2:** The ability to analyze Power System network encompassing stability, control and protection and interconnection of Renewable Energy Sources with Micro and smart grid.

### **Program Outcomes (POs) for PG-PED**

**PO1:** An ability to independently carry out research/investigation and development work to solve practical problems.

**PO2:** An ability to write and present a substantial technical report/document.

**PO3:** Students should be able to demonstrate a degree of mastery over the area as per the specialization of the program. The mastery should be at a level higher than the requirements in the appropriate bachelor program.

### **Program Specific Outcomes (PSOs) for PG-PED**

**PSO1:** The ability to design and analyze Power Electronic converters and control of Electric drives for Industrial applications.

**PSO2:** The ability to apply Power Electronic Circuits in Transmission and distribution network of Power System and interconnection of Renewable Energy.



**An Article on “Fuel cells Breathing New Life into Fuel Cells”  
by Mr Deepak, 2<sup>nd</sup> Year Student**



The demand for clean energy has never been higher, and it has created a global race to develop new technologies as alternatives to fossil fuels. Among the most tantalizing of these green energy technologies is fuel cells. They use hydrogen as fuel to cleanly produce electricity and could power everything from long-haul trucks to major industrial processes.

However, fuel cells are held back by sluggish kinetics in a part of the core chemical reaction that limits efficiency. But, researchers from The University of Texas at Austin have discovered new dynamics that could supercharge this reaction using iron-based single-atom catalysts.

### **Fuel-cell-chemical-reaction**

**The Breakthrough:** The researchers developed a new method to improve the oxygen reduction portion of the chemical reaction in fuel cells, in which O<sub>2</sub> molecules are split to create water. They did so through a “hydrogel anchoring strategy” that creates densely packed sets of iron atoms held in place by a hydrogel polymer. Finding the right formula for spacing these atoms created interactions that allowed them to morph into catalysts for oxygen reduction.

Figuring out the density and locational dynamics of these iron atoms unlocks a level of efficiency in this reaction never before realized. The researchers demonstrated these findings in a new paper published recently in Nature Catalysis.

**Why it Matters:** The oxygen reduction reaction is perhaps the greatest impediment to large-scale deployment of fuel cells. The promise of fuel cells lies in the fact that they are nearly limitless in potential applications. They can use a wide range of fuels and feed stocks to provide power for systems as large as a utility power station and as small as a laptop computer.

Academic researchers around the globe are working to enhance fuel cell capabilities. That includes other engineers at UT Austin who are taking a variety of approaches to solve key problems in fuel cell development.

**What the Researchers Have to Say:** “It is of the utmost importance to replace fossil fuels with clean and renewable energy sources to tackle major problems plaguing our society like climate change and the pollution of the atmosphere,” said Guihua Yu, an associate professor of materials science in the Cockrell School’s Walker Department of Mechanical Engineering. “Fuel cells have been regarded as a highly efficient and sustainable technology to convert chemical to electrical energy; however, they are limited by the sluggish kinetics of the cathodic oxygen reduction reaction. We found that the distance between catalyst atoms is the most important factor in maximizing their efficiency for next-generation fuel cells.”

**What’s Next:** These findings can be applied to anything that includes electro catalytic reactions. That includes other types of renewable fuels as well as ubiquitous chemical products such as alcohols, oxygenates, syngas and olefin.

## **Use of fuel cells will be ubiquitous soon!**

Of late, worldwide priority has been on harnessing renewable energies, especially solar and wind energies. However, Fuel Cells are also creating their own space. Whether Fuel Cells are falling within the domain of traditional definition of renewable energies – that is still debatable.

However, there is a wide potential of these devices as standalone power sources and they have also shown their capabilities as complementary components to the solar and wind projects.

India is advancing with a holistic target; thus, our government, industrial entities and scientists are continuously working on developing and improving Fuel Cells to bring them to the forefront of the industry. Contextually, recently the researchers from The Indian Institute of Technology Guwahati have developed a bio-electrochemical device, Microbial Fuel Cell (MFC) that can generate green energy by treating wastewater.

There are many other instances that establish India's strong commitment towards bringing Fuel Cells to every sphere of life. For example, in March 2022, Union Minister for Road Transport and Highways Nitin Gadkari launched the world's most advanced technology-developed Green Hydrogen Fuel Cell Electric Vehicle (FCEV) Toyota Mirai at New Delhi. Also, in February, Ballard Power Systems signed a non-binding MoU with the Adani Group to assess a joint investment case for commercialization of fuel cells in India.

The latest decision of Cochin Shipyard Limited to invest an initial corpus of Rs. 50 Crore in start-up companies engaged in the marine sector is highly admirable. The Union Government's plan for building Hydrogen Fueled Electric Vessels is definitely a forward-looking decision. Thus, I am quite sure that within next few years, India will witness presence of Fuel Cells in most of the industrial sectors.

## Students Achievements (College Day Awards)

**Ms. Swetha GM of 3<sup>rd</sup> Year won the Panikkar Award for the Academic Year 2020-21**



**Mr. Adithyan M of 3<sup>rd</sup> year won the Panikkar Award for the Academic Year 2021-22**





**Mr.Suraj V of Final Year won the Outstanding Sportsman Award for the Academic Year  
2020-21**



**Ms.Snekha S L of 3<sup>rd</sup> year won Dr. S. Thiruvengadam award for the Academic year  
2020 – 2021**



**Best cadet Award won by Mr. Sankara narayanan S N**



**Best Female NSS Volunteer Award won by Ms.Lekha S 3<sup>rd</sup> year**



Mohammed Abdul Rahman Shahid from 3-year went through an internship for one month at Riddhi Siddhi Crusher and Land Transport, Fujairah-U.A.E from 19.01.2021 to 18.02.2021

## Journal Publication



Mr.Narendran K, 2<sup>nd</sup> year, Published an article “Report on Gaucher Disease” in IOSR Journal of Humanities and Social Sciences, Volume 26, Issue 6, Series 7 (June. 2021) 49-52 e-ISSN: 2279-0837, p-ISSN: 2279-0845. DOI: 10.9790/0837-2606074952.



Mr.S. Leponraj, Mr.A. Dheeraj and Mr.G. Gangaram Sundar ,final Year students,published a paper, “Multi-Criteria Decision Analysis for user satisfaction-induced demand-side load management for an institutional building” in the journal of Renewable Energy,Volume 170, June 2021, Pages 1396-1426,<https://doi.org/10.1016/j.renene.2021.01.134>.





Mr. Padmanaban.A, Participated , in IEEE sponsored international conference on advances in electrical, computing, communications and sustainable technologies, organized by Shri shankaracharya group of Institutions, chhattigath, india, from 19<sup>th</sup> f to 20<sup>th</sup> February, 2021.

### **Placement and Internship Details**

#### **Internship details of 2017-21 batch students given below**

<b>S.No</b>	<b>Name of the Students</b>	<b>Register Number</b>	<b>Company Name</b>
1	Lalith Kishore K	170601040	CTS
2	Jerson J	170601030	CTS
3	Praveen Kumar T	170601055	CTS
4	Annam Annapurna	170601005	CTS
5	Anmol R	170601004	CTS
6	Sathish P	170601075	CTS
7	Kishore M	170601038	Caratlane
8	Ramya KG	170601059	CTS
9	Jayasuriya	170601029	Worksbot
10	Keerthivasan K	170601036	Ernst & Young
11	Meenakshi A	170601043	CTS
12	Jajula Deevena	170601028	CTS
13	Kirubakaran P.S	170601037	Admatic Solution
14	Siva SA	170601082	CTS
15	Santhosh Kumar K	170601073	CTS
16	Vinitha E	170601097	CTS



## AICTE Sponsored Events

### AICTE Sponsored International E-Conference on **Smart Technologies in Electric vehicles and Power Grid**

The International E-Conference on Smart Technologies in Electric Vehicles and Power grid, STEP-2021 was sponsored by All India Council for Technical Education, AICTE and was organized by the Department of Electrical and Electronics Engineering of Sri Venkateswara College of Engineering. STEP 2021 was a three day conference which was conducted from 27th January 2021 to 29th January 2021. The conference was hosted online on Google Meet platform at 10.00 A.M and was witnessed by over 100 participants.

The conference provides space for the researchers to present their results of research work and knowledge sharing in the field of smart technologies in EVs and Power Grid. It also enables in creating collaborative links between academia and professional practitioners and their workplaces, aiming at long-term sharing of knowledge and discussions of current innovations.



The Inaugural function was held on 27<sup>th</sup> January, Forenoon Session. **Dr. Sudhakar K Bharatan**, Assistant HOD, EEE department, warmly welcomed the gathering. Following which a delightful Prayer song was sung.

**Dr. C. Gopinath**, Associate Professor of EEE department and Organizing Secretary of STEP 2021 delivered the welcome address and wished good luck to all the participants.

Followed by the welcome address, the conference address was delivered by **Dr. K.**

**R. Santha**, Vice Principal and Head of the Department, EEE. Dr. K. R. Santha expressed her gratitude to the Principal and the Secretary for giving the opportunity to the Electrical and Electronics department to organize this international E-conference.

**Dr. M. Sivanandham**, Secretary of Sri Venkateswara Educational and Health Trust, delivered the patron address and inspired the participants with the upcoming innovations in the electric field all over the world. He also gave insights on energy management and implementation of Electric vehicles.

The patron address by Dr. M. Sivanandham, & Presidential Address by **Prof. Dr.**

**S. Ganesh Vaidyanathan**, Principal of SVCE, delivered the presidential address and he insisted on the usage of smart technologies to benefit the society.

### **Moments Captured during the Inauguration**



**Dr. Sudhakar K Bharatan ,  
Professor, AHOD/EEE**



**Dr. C. Gopinath , ASP/EEE**



**Dr. K. R. Santha, Vice  
Principal and HoD, EEE**



**Dr. M. Sivanandham,  
Secretary, SVEHT.**



**Prof. Dr. S. Ganesh Vaidyanathan, Principal of SVCE**

**Dr. S. Ramesh Babu**, Hod of Mechanical department, then introduced and welcomed the chief guest of the inauguration ceremony, Prof. Vigna Kumaran A/L Ramachandramurthy.

The chief guest, **Prof. Vigna Kumaran A/L Ramachandra Murthy** is the Head of Power Systems, Power Engineering Centre, Universiti Tenaga Nasional, The Energy University, Malaysia. He gave the participants detailed insights on deployment of electric vehicles.

He also motivated the upcoming researchers and supervisors with important keypoints like mind set, practical thinking, ethics, etc.



After the inaugural address the program was conducted as per the schedule. Everyday in each session a keynote lecture was delivered by the expert speakers in respective field.

### **A sample of technical session was given below**

**Day – 1 | Session – 1 | Date -27/01/2021 | Time: 2.30 PM - 5.30 PM**

As a part of the conference , On day 1 – 27<sup>th</sup> January 2021 , at 2.30 PM , TechnicalSession-I on “**Smart Electric Vehicles**” commenced with a total strength of 22. Mrs.Arulmozhi, Assistant professor, dept of EEE hosted the entire session. First, She introduced and welcomed our session chairs for session 1.

**Session chair 1:** Dr K.Padmanathan ,Director,NestLives Private Limited,Chennai

**Session chair 2:** Dr.V.Ganesh,AUT,SVCE.

**Session chair 3:** Dr.C.Gopinath ,EEE, SVCE

Followed by a welcome address, she welcomed the participants of that session , and moved on with presentations. Session 1 had 8 presentations on Smart Electric Vehicles by various students , faculties and research scholars of various colleges.The authors are provided with 7 minutes presentation and 3 mins discussion with session chairs. The event ended by 5.00 pm.



## Valedictory Function

Three Days, Seven Keynote Lectures, Eleven Technical Sessions, 100+ Technical Papers, 400+ Presenters, the International E-conference on Smart technologies in Electric Vehicles and Power Grid, STEP-2021 has come to its end with this Valedictory Function. The valedictory function commenced at 2 P.M. on 29.01.2021. Total of 140 Students, Research Scholars, Professors, were present during the course of the valedictory function.

It was graciously hosted by Ms. Arulmozhi.S AP/EE and Ms.Maadhuri.M AP/EE. The Welcome address was delivered by Dr.J.Venkatesan Professor & Head / AE, SVCE. And a detailed conference report was given by Dr.KR.Santha , Professor & Head / EEESVCE. The Valedictory Address was given by Dr.Vaidehi Vijayakumar with a brief note about smart technologies, smart charging electric vehicles, also discussed various ideas on improving the grid efficiency, AI and IoT.



Dr.J.Venkatesan Professor  
Head ,AE, SVCE .



Dr.KR.Santha , Professor  
Head ,EEE ,SVCE.



The Valedictory Address by Dr.Vaidehi Vijayakumar

The “Best Paper Award” in each session was given to the studies which were selected by the session chairs among the presented papers. Study’s relevance to the symposium’s scope, its scientific contribution, presentation style has been considered in the evaluation process. Eleven Best Papers one from each Technical Session of the E-Conference were announced by Dr.KR.Santha, Professor & Head /EE SVCE.

Dr. Sudhakar K Bharatan Professor /EE, SVCE concluded the valedictory function with vote of thanks.



## **AICTE-ISTE- SPONSORED INDUCTION/REFRESHER PROGRAMME on”SOLAR PV SYSTEM DESIGN USING IoT”**

AICTE-ISTE INDUCTION/REFRESHER PROGRAMME on “**SOLAR PV SYSTEM DESIGN USING IoT**” –organized in three phases (from 03.03.2021 to 09.03.2021)Phase I & (from 31.03.2021 to 08.04.2021) Phase –II and (from 05.05.2021 to 11.05.2021) Phase III, by the Department of Electrical and Electronics Engineering, Sri Venkateswara College of Engineering, Sriperumbudur held in online mode.

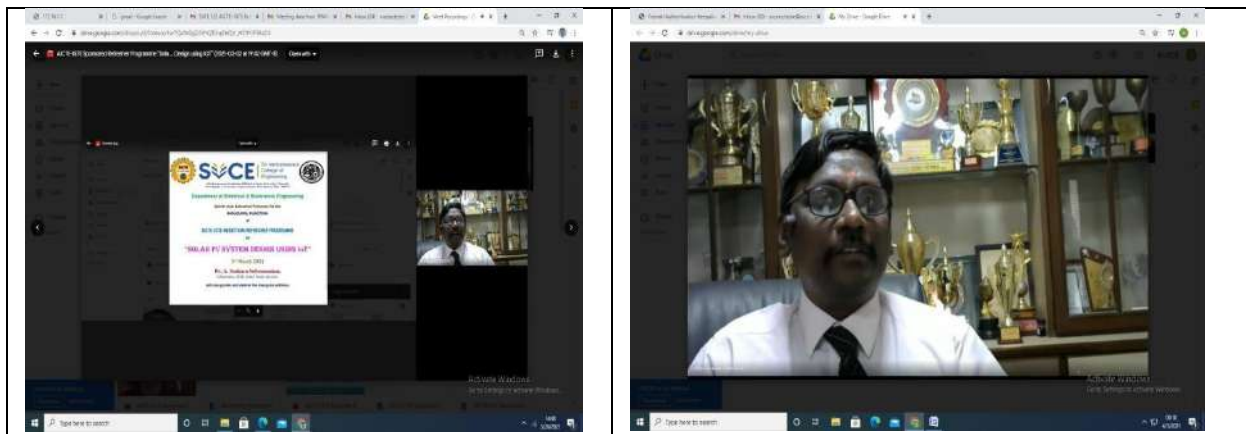
### **Details of the Induction / Refresher program Phase-I**

On **03.03.2021 (Wednesday)** at 9:00 AM, this program was invoked with a prayer song and the welcome address was delivered by the **Coordinator Dr. C. by Dr. KR. Santha**, Vice Principal, Professor and Head, Department of EEE/SVCE.

**Dr. S. Ganesh Vaidyanathan, Principal, SVCE** delivered the presidential address and highlighted the significance of this Refresher/Induction program topic.

**Dr. Sudhakar K Bharatan**, Professor and Assistant Head, Department of EEE, SVCE introduced the **Chief Guest, Dr. A. Sankara Subramanian, Chairman, ISTE-Tamilnadu Section.**

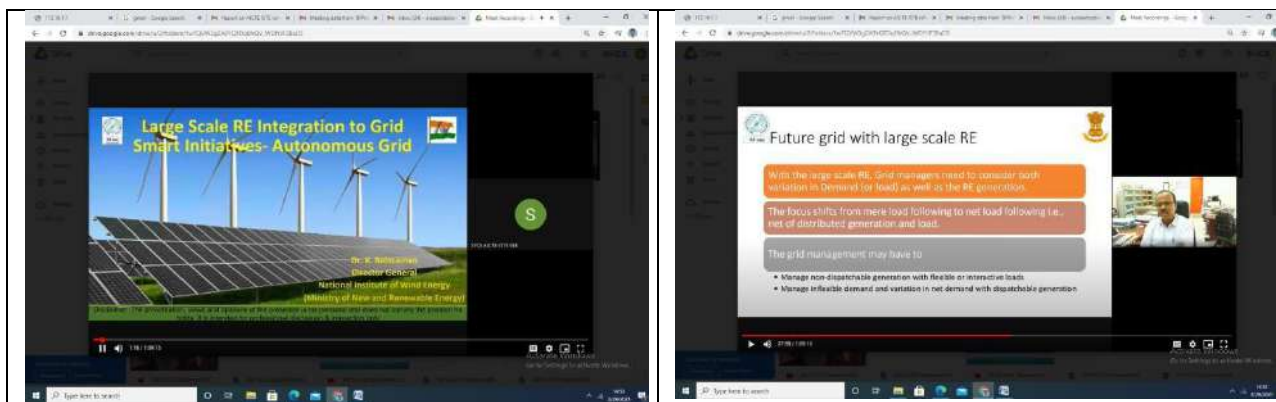
This Program was inaugurated by the **Chief Guest, Dr. A. Sankara Subramanian**, Chairman, ISTE-Tamilnadu Section. Following the inaugural address, the keynote session #1 was also presented by him that highlighted on the solar PV applications in thrust areas.



**Inaugural address by Dr. A. Sankara Subramanian, Chairman, ISTE-Tamilnadu Section**

After the detailed keynote session, Vote of Thanks was given by the Coordinator **Mr. D.S. Purushothaman**, Asst. Prof/ EEE, SVCE.

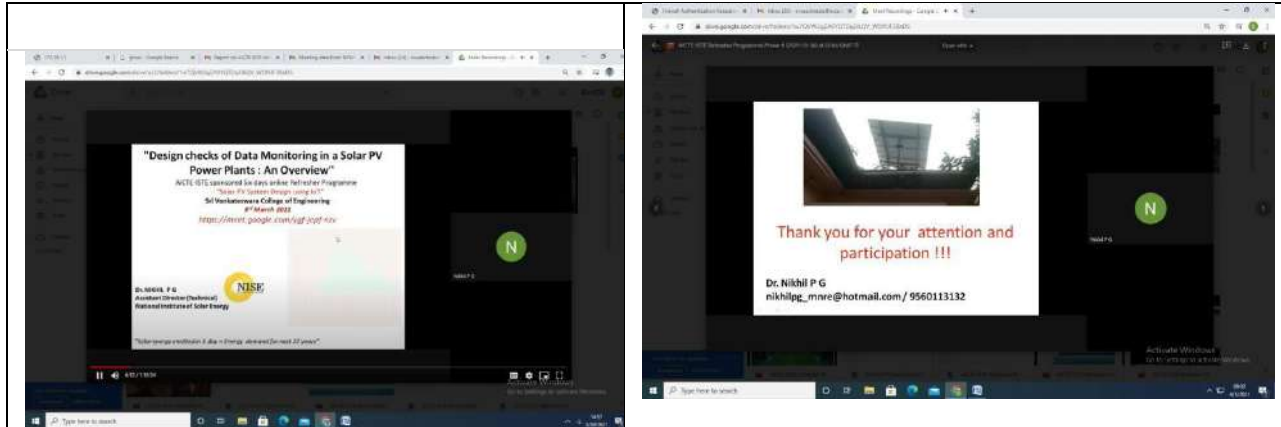
The session #2 on 03.03.2021 (Wednesday) was delivered by **Dr. K. Balaraman**, **Director General, National Institute of Wind Energy** on the topic “**Renewable Energy – An Overview**”. Detailed discussions on availability and challenges in Renewable Energy Systems were presented in this session.



**Dr. K. Balaraman, Director General, National Institute of Wind Energy delivering the session on “Renewable Energy – An Overview”**

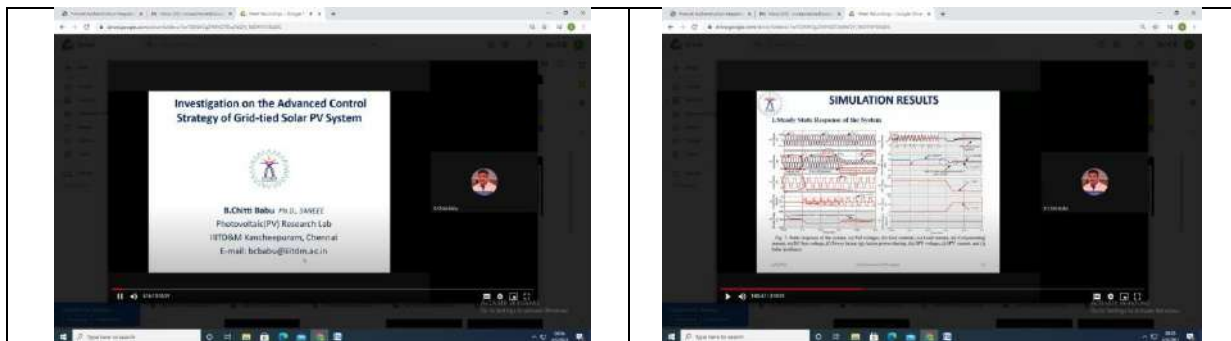
Session3 presented by **Dr. PG. Nikhil**, **Assistant Director (Technical), National Institute of Solar Energy**. The topic for the session was “**Design Checks of Data monitoring in a Solar PV Power Plants: An Overview**”. In this session, the participants were presented with detailson Solar PV Power Plant’s various parameters monitoring cum adjustments. The session ended with the interactive discussions on design checks on data monitoring in solar PV power plants.



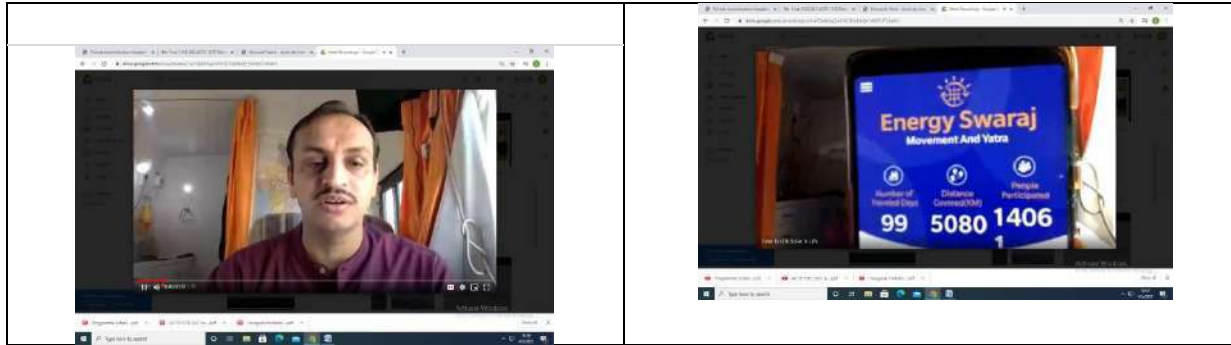


**Dr. PG. Nikhil, Assistant Director (Technical), National Institute of Solar Energy, discussing in detailed about the “Design Checks of Data monitoring in a Solar PV Power Plants: An Overview”.**

The session #1 on 04.03.2021 (Thursday) was presented by **Dr. B. ChittiBabu, Assistant Professor (Sr. Grade)**, Indian Institute of Information Technology, Design and Manufacturing (IIITDM), Kancheepuram. The topic for the session was “**Investigation on the Advanced Control Strategies of Grid-Tied Solar PV System**”. The presentation highlighted various advanced control strategies of the grid-interconnected Solar PV System and its analysis. The hardware implementation and results part of the presentation ignited the minds of participants towards innovative research.

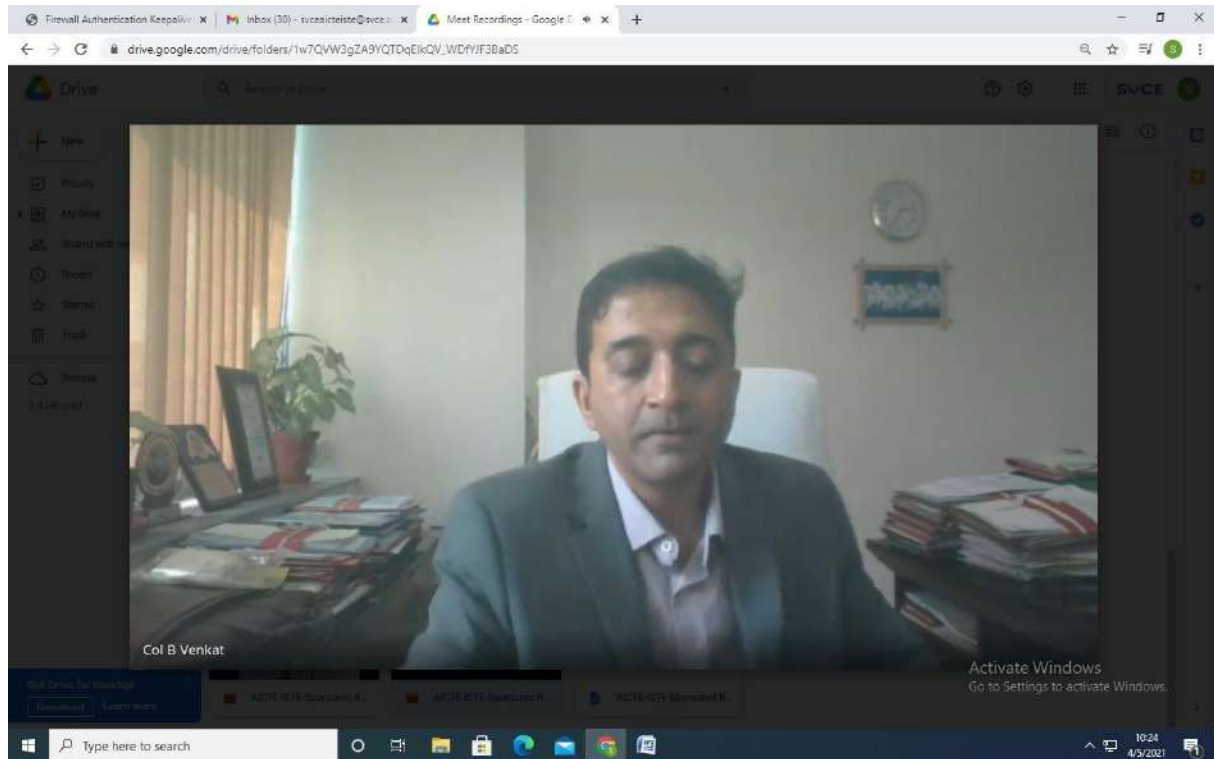


**Dr. B. ChittiBabu, Assistant Professor (Sr. Grade), IIITDM, Kancheepuram discussing on “Investigation on the Advanced Control Strategies of Grid-Tied Solar PV System**



**Dr. Chetan Singh Solanki, Department of Energy Science and Engineering, Indian Institute of Technology, Bombay delivering the speech on “Solar PV System Design (Off grid, On grid, Hybrid)”**

The valedictory function of AICTE-ISTE INDUCTION/REFRESHER PROGRAMME on “**SOLAR PV SYSTEM DESIGN USING IoT**” – phase -1 was organized on 09.03.2021 (Tuesday) at 1.15 PM. The function started with ‘Thamiz Thai Vazthu’ followed by the welcome address by **Mr. D.S. Purushothaman**, Asst. Prof/ EEE, SVCE. The report of the program was presented by **Dr. KR. Santha**, Vice Principal, Professor and Head, Department of EEE/SVCE. **Dr. S. Ganesh Vaidyanathan, Principal, SVCE** delivered the presidential address. **Dr. Sudhakar K Bharatan**, Professor and Assistant Head, Department of EEE, SVCE introduced the **Chief Guest, Col. B Venkat Director (Faculty Development) AICTE, New Delhi**. The valedictory speech was given by **Col. B Venkat**. He appreciated Sri Venkateswara College of Engineering and the Department of Electrical and Electronics Engineering for having organized the Refresher Program which is the need of the hour. Vote of Thanks was given by the Coordinator **Dr. C. Gopinath**, Associate Professor; Department of EEE/SVCE.



**The valedictory speech by Col. B Venkat, Director (Faculty Development) AICTE, New Delhi.**

## **AICTE sponsored Online Short Term Training Programme on “Electric Vehicle Evolution – Impact on Power Grid”**

AICTE sponsored Online Short Term Training Programme on “Electric Vehicle Evolution – Impact on Power Grid” Phase-I: February 8<sup>th</sup> to 13<sup>th</sup> 2021, Phase-II: March 22<sup>nd</sup> to 27<sup>th</sup> 2021, Phase-III: April 19<sup>th</sup> to 24<sup>th</sup> 2021.



### **Abstract**

The future Electrical Power System operation and control has to be restructured to face the challenges of plug-in Electric Vehicles (EV) evolution. The knowledge in EV drive, Battery Energy Storage (BES), Fast-charging circuitry, Battery Management System (BMS) and its impact on smart and micro grid dynamics, coordinated BMS, control, protection and communication protocols are imperative for Engineers working in these domains. This STTP was aimed at training the participants on the present procedures and future expectations in the aforementioned areas by experts from Industry & Institutions. This STTP also facilitated the participants to acquire hands-on training in this field through various related systems modeling and simulation. After participating in this STTP, participants gained the expertise to select and design suitable motors, Battery management system and power converters for Electric Vehicles. They also gained expertise in identifying the changes to be done in Power System after EV incorporation in Micro and Smart grid environments.

## Objectives

- ❖ Familiarize the participants about EV configuration/ components and its interaction with power grid.
- ❖ Creating awareness on impact of EV evolution on operation and control of Electrical Power System.
- ❖ Inculcate charging/discharging of aggregated EV and its impact on micro grid.
- ❖ Training the delegates in design and analysis of EV drive motor using MAGNET, simulation of EV with battery energy storage (BES) using PWSIM, MATLAB and DIgSILENT.
- ❖ Offering expertise to the participants on operation of micro and smart grids with EV.

## STTP Details

The AICTE sponsored STTP on ‘Electric Vehicle Evolution – Impact on Power Grid’ was organized by the Department of Electrical and Electronics Engineering, Sri Venkateswara College of Engineering in ONLINE mode in three phases as detailed below:

Phase-1: 8<sup>th</sup> February 2021 – 13<sup>th</sup> February 2021

Phase-2: 22<sup>nd</sup> March 2021 – 27<sup>th</sup> March 2021

Phase-3: 19<sup>th</sup> April 2021 – 24<sup>th</sup> April 2021

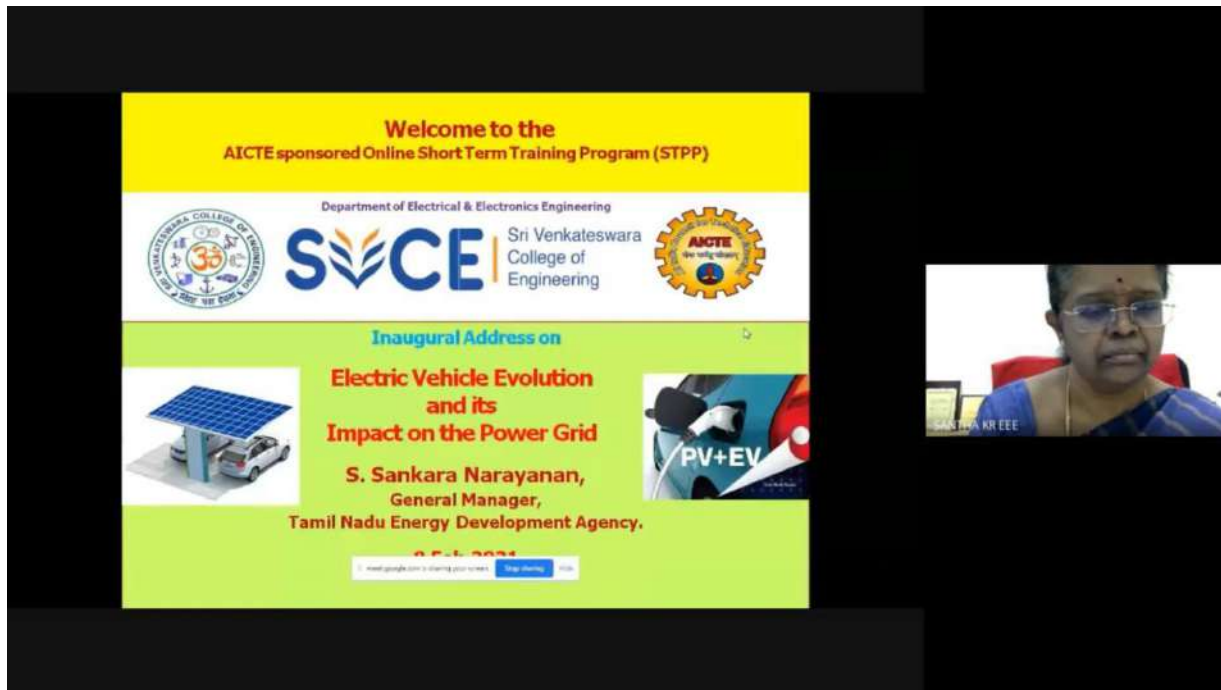
The Phase-1 of this STTP was hosted online on 8<sup>th</sup> Feb 2021 at 9.30 AM. The STTP started with a prayer song. **Dr.KR.Santha, Vice Principal, Professor and HOD,EEE** delivered the welcome address and briefed about significance and objectives of the STTP. **Prof. Dr. S. Ganesh Vaidyanathan, Principal, Sri Venkateswara College of Engineering** delivered the presidential address.

The Phase-1 of STTP was inaugurated **Dr.R.Kathiravan, Executive Engineer, TANGEDCO**. Following the inaugural address the dignitaries delivered an expert lecture on the topic “Impact

of Renewable Energy Generation and Electric Vehicle on Power Grid – Future perspective and Preparedness”.

In all the phases of the STTP, the participants from industry and academia were trained in the area of ‘**Electric Vehicle Evolution and its Impact on Power Grid**’ through 18 sessions of expert lectures and hands-on by Eminent Industry and Academic experts as given in schedule. 82 Participants attended Phase-1, 42 Participants attended Phase-2 and 79 Participants attended Phase-3. The valedictory of the AICTE-STTP was held on 24<sup>th</sup> April 2021 at 3.30 PM. Dr.KR.Santha, Vice Principal, Professor and HOD, EEE delivered the valedictory address.

## Session Details

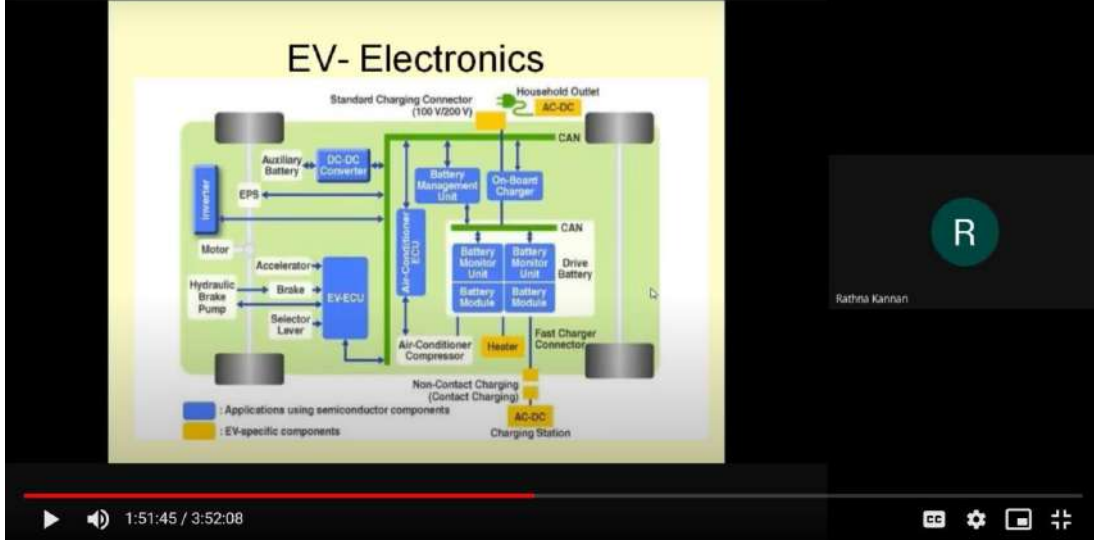


The screenshot displays a Zoom meeting interface. On the left, a presentation slide is visible with the following content:

- Welcome to the**  
AICTE sponsored Online Short Term Training Program (STTP)
- Department of Electrical & Electronics Engineering
- SACE** Sri Venkateswara College of Engineering
- AICTE logo
- Inaugural Address on**
- Electric Vehicle Evolution and its Impact on the Power Grid**
- S. Sankara Narayanan,**  
General Manager,  
Tamil Nadu Energy Development Agency.
- 05-04-2021

On the right, a video feed shows Dr. KR. Santha, a woman wearing glasses and a blue top, speaking during the valedictory address.





Phase-1 (Day-2, 09/2/2021, Tuesday), session-3: Expert lecture by **Dr.S.Sudhakar, Senior Scientist, CSIR – Central Electrochemical Research Institute, Karaikudi** on the topic “**Li-ion batteries : Recent Progress and Challenges.**”



Phase-1 (Day-3, 10/2/2021, Wednesday), session-1: Expert lecture by **Dr.K.Shanti Swarup, Professor, Indian Institute of Technology Madras** on the topic “**Electric Vehicle and Power System Operation and Control - a perspective.**”

Phase-2 (Day-1, 22/3/2021 Monday), session-1, video link:

<https://drive.google.com/file/d/1XIMRI67m9C-jUSyWzhemPEvbIgb2xliW/view?usp=sharing>



Phase-3 (Day-4, 22/4/2021 Thursday), session-3: Expert lecture by **Mr.Rathnakumar Devaraj, Industrial & Systems, Development Engineer, CE+T Power, Wandre, Belgium** on the topic **“Modular Multidimensional Converters & Application.”**

AICTE-SVCE-STTP Ph3(Day 4) (2021-04-22 at 01:29 GMT-7)

**Recommendation-Smart Charging**

**SUPPLY**

**DEMAND**

Thanks to smart charging, your electric vehicle can:

- Store your locally-generated renewable energy and provide backup electricity
- Interact with your smart home and appliances

Smart charging enables your electric vehicle to:

- Keep the grid stable by balancing supply and demand
- Power the grid when there is a lack of renewable energy supply
- Charge when there is excess renewable energy supply

Leading Conversion Technology for Power Resilience

1:29:41 / 1:48:18

## Professional Society Activities

### Association of Electrical and Electronics Engineering

#### Webinar – on “Growth Marketing and Product Management”



**Sri Venkateswara College of Engineering**  
Autonomous - Affiliated to Anna University  
Sriperumbudur-602117

**Association of Electrical & Electronics Engineers** cordially invites you to attend a Webinar titled

**"Growth Marketing and Product Management"**

**On Jan 16th 2021**  
**Time : 10 am to 11 am**  
Register here : [CLICK](#)

**ABOUT THE GUEST SPEAKER**



**Mr. Amit Singh**  
Senior Product Manager at Mobikwik

B. Tech in Electrical Engineering (2011)  
**IIT -Bombay**

PGDM in General management (2015)  
**IIM - Ahmedabad**

**CONVENER**  
Dr.KR.Santha,  
Vice Principal,  
Professor & Head of Dept,  
Department of EEE

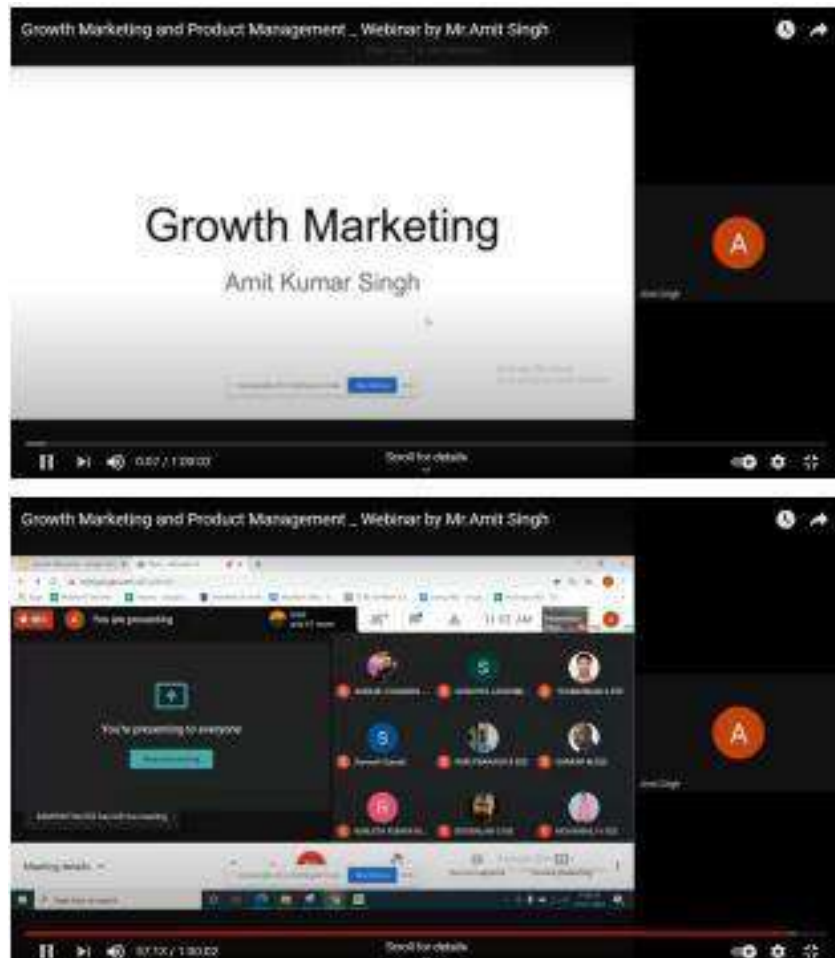
**COORDINATORS**  
Mr.V.Mohanraj , Asst.Professor  
Mr.S.Thamizmani , Asst.Professor  
Mr.M.RanjithKumar,Asst.Professor  
Mr.S.Kumaravel , Asst.Professor  
Dr.M.Sankar, Asst.Professor  
Department of EEE

**CONTACT US**  
9943396327  
9840777325  
9842416145  
mohanraj@svce.ac.in  
thamizmani@svce.ac.in  
mranjith@svce.ac.in

Mr. Amit Singh, the webinar on “Growth Marketing and Product Management” by Mr. Amit Singh was held on 16th January 2021. The event was conducted virtually through Google meet medium. The event started at 10:00 am and lasted for an hour holding about 90 participants which included students as well as faculty members.

The speaker Mr. Amit Singh who is the Senior Product Manager at Mob Kwik pursued his B. Tech in electrical engineering at IIT Bombay and his Post Graduate Diploma in Management at IIM. He has been in the financial services domain for over 5 years and has worked with popular companies like MasterCard, PayU and Paytm. His career path from an electrical engineer to a

successful product manager inspired and motivated all the budding electrical engineers who attended the webinar.



The speaker explained how the various e-commerce payment systems and financial technology companies attract users. He also gave the participants great insights on digital payments and marketing. The involvement of the participants towards his lecture was immense. They made the session even more interactive by asking a lot of questions to the speaker. The speaker was very humble and patient in answering the questions. He gave very detailed and exceptional explanations to the participants without any hesitation. The session ended with the vote of thanks by Dr. Sudhakar K Bharatan, Professor of EEE department.

## Webinar on ACE Writing

ACE TECH WRITING As a part of Pulse'21 – A National Level Technical Symposium a pre-event webinar was organized by the Department of Electrical and Electronics Engineering, Sri Venkateswara College of Engineering on the topic “ACE Tech Writing” which was held on 7th May 2021 for 2nd and 3rd year students of EEE department from 3:30 PM to 4:50 PM.

Ms. Swetha GM, student Coordinator of AEEE delivered welcome address. Dr. KR. Santha, Vice principal and HOD/EEE inaugurated the webinar session and presented a brief introduction and valuable insights into the two parallel webinar sessions on the topics “IDEA GENERATION TO PROJECT IMPLEMENTATION” and “ACE TECH WRITING.”

**SVCEI** Sri Venkateswara College of Engineering

**PULSE'21**

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING  
PRESENTS  
A webinar on

**ACE TECH WRITING**

**Expert Speakers:**  
Dr. Sudhakar K B  
Prof./EEE  
Dr. S. G. Bharathidasan  
Asso. Prof./EEE

**CONVENER**  
Dr. KR. SANTHA, Vice-Principal  
Professor & Head of Dept.  
Department of EEE

**CO-ORDINATORS**  
Dr. S. Kumaravel, Asst. Professor  
Dr. M. Ganbar, Asst. Professor  
Department of EEE

**STUDENT CO-ORDINATORS**  
Ms. Kavyashree A.  
Ms. Sandhya Lakshmi V

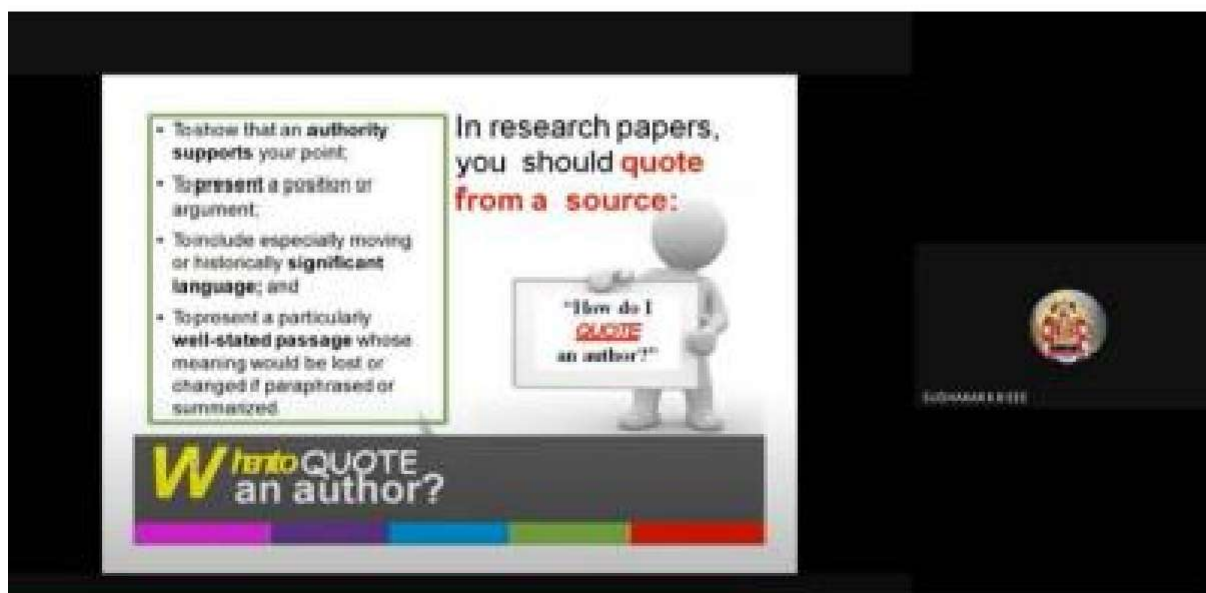
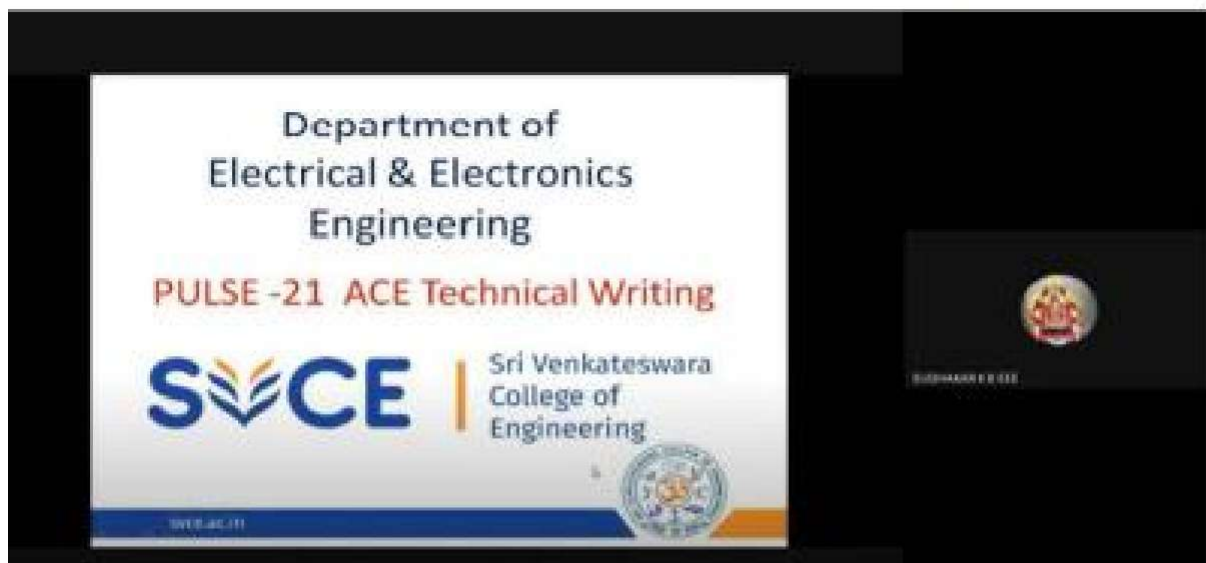
**"Friday,  
7 May"**  
3.30 PM TO 4.15 PM

Scan To Join

For more info visit us on [pulse21.tech](http://pulse21.tech)

The speaker of the session Dr. Sudhakar K B, Professor/EEE started with the importance of technical writing followed by the need for research paper writing. He gave a deep insight about the structure of a research paper consisting of three parts with compulsory headings in each part. Then he guided how to prepare for writing a paper from choosing a topic, gathering materials, making preliminary outline, citations and where to use quotes and how to use it. He explained about plagiarism, paraphrasing and gave a glimpse about the order of importance.

### Screen savings of webinar proceeding





## Pulse'21 - A National Level Technical Symposium

**SVCE** | Sri Venkateswara College of Engineering  
(An Autonomous Institution Affiliated to Anna University, Chennai)  
Post Bag No. 1, Pennalur, Sriperambudur, Kanchipuram(Dt) - 602117

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING  
ASSOCIATION OF ELECTRICAL AND ELECTRONICS ENGINEERS

# PULSE'21

A National Level Technical Symposium

**13<sup>TH</sup> 2021 MAY**

**TECHNOVERTER**  
PERSUADE, INFORM AND INSPIRE THROUGH YOUR PRESENTATION

**RESIST TO PERSIST**  
WEAR ON YOUR THINKING HATS AND CRACK THE RESISTOR PUZZLES

**MERCILESS FIRE**  
ANSWER ALL THE TECHNICAL QUESTIONS AS BOLD AS THE LIGHTNING

**6 Events & 2 Webinars**  
IDEA GENERATION TO PROJECT IMPLEMENTATION

**LAST MAN STANDING**  
BATTLE WITH THE COMPLEX LOGIC CIRCUITS TO SURVIVE TILL THE END

**HARD-U-KNOW**  
SET YOUR MIND HIGH AND CODE WITH ARDUINO

**VICES AND VIRTUES**  
SURPRISE EVENT! EXPECT THE UNEXPECTED AND WHENEVER POSSIBLE BE THE UNEXPECTED

SCAN TO REGISTER

REGISTRATION CLOSES ON **12<sup>TH</sup> MAY**

For further details visit event website: [pulse21.tech](http://pulse21.tech)

CONVENOR  
Dr.KR.Santha, Vice-Principal, Professor & Head of Dept, Department of EEE

CO-ORDINATORS  
Dr.S.Kumaravel, Asst. Professor  
Dr.M.Sankar, Asst. Professor  
Department of EEE

STUDENT CO-ORDINATORS  
Ms.Kavyashree A - 9500191400  
Ms.Sandhya Lakshmi V - 9499923710

[svce.ac.in](http://svce.ac.in)

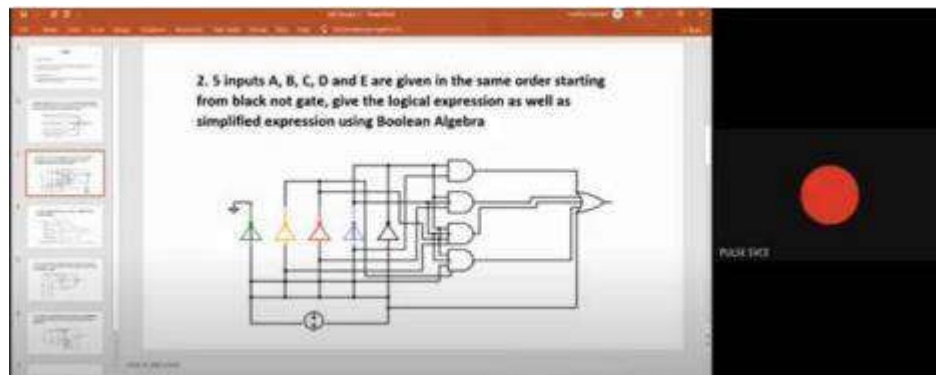
PULSE '21 is a National Level Technical Symposium organized by the Department of Electrical and Electronics Engineering, Sri Venkateswara College of Engineering. The symposium was conducted virtually on 13th May 2021 through G-Meet medium. This symposium witnessed over 300 registrations.

The symposium commenced traditionally with a prayer song at 9.30 AM. Dr. KR. Santha, Vice-Principal and HOD,EEE, SVCE delivered the Inaugural Address. The significance of organizing the symposium every year, a brief account on various events of Pulse'21, how the participations in events like this adds value to the student's profile and placements were few important extracts of the inaugural speech.

Followed by the inaugural address, the various events commenced at 10.30 AM. And conducted as per schedule. The various technical events conducted in Pulse'21 include Technoverter I – the Paper presentation contest, Technoverter II – the Poster Presentation contest, Technoverter III - the Project

display contest, Last Man Standing, Hard-U-Know, Resist to Persist, Merciless Fire and Vices & virtues.

The first event was Technoverter in which students presented their paper, projects and posters. Innovative presentations were showcased by the students from various reputed colleges across the Nation.




The symposium concluded at 3.30 P.M with the announcement of prize winners of various events and the valedictory address by Dr. KR. Santha, Vice Principal and HOD, EEE, SVCE.

# Events organized by Institute of Electrical and Electronics Engineers – IEEE-SB



Sri Venkateswara  
College of  
Engineering



INSTITUTION'S  
INNOVATION  
COUNCIL



ABET  
ACCREDITED

**IEEE STUDENT CHAPTER PRESENTS**

# CIRCUITRIX' 21

✓ **FIRST YEAR STUDENTS CAN ALSO REGISTER**

<b>WHEN</b>	<b>ROUNDS</b>	<b>MODE</b>
 <b>MAY 31</b>	 <b>1 TECHNICAL QUIZ</b> <b>2 TECHNICAL ADZAP</b> <b>3 CIRCUIT DEBUGGING</b>	 <b>ONLINE</b>

<b>FOR QUERIES</b>	<b>CASH PRIZE</b>	<b>REGISTRATION CLOSES</b>
 <b>SWETHA - 7339573322</b> <b>ABINAYA - 9840311628</b>	 <b>WORTH RS. 3000</b>	 <b>MAY 30</b>

**SCAN TO REGISTER**



**IEEE STUDENT BRANCH CHAIRPERSON**  
**Dr. KR. SANTHA,**  
**VICE-PRINCIPAL, HOD/EEE**

**CO-ORDINATORS**  
**Dr. P. JOTHILAKSHMI, PROF/ECE**  
**Ms. S. ANITHA, AP/EEE**  
**Ms. C. GOMATHEESWARI PREETHIKA, AP/ECE**

[svce.ac.in](http://svce.ac.in)





Circuitrix'21, a technical event conducted by IEEE Student Chapter, SVCE for people who delve deep into untangling the circuits day and night. The event was held to escalate passion towards decoding the beautiful yet messy circuits into working art of technology. It is an event which gave all tech enthusiasts a chance to unveil their zeal in the world "TRONICS".

The event was held online on 31<sup>st</sup> of May (Monday) in three rounds:

-> **Round 1: Technical Quiz**

It consisted of multiple choice questions and fill ups based on **technical** topics. It was hosted on an online proctored website.

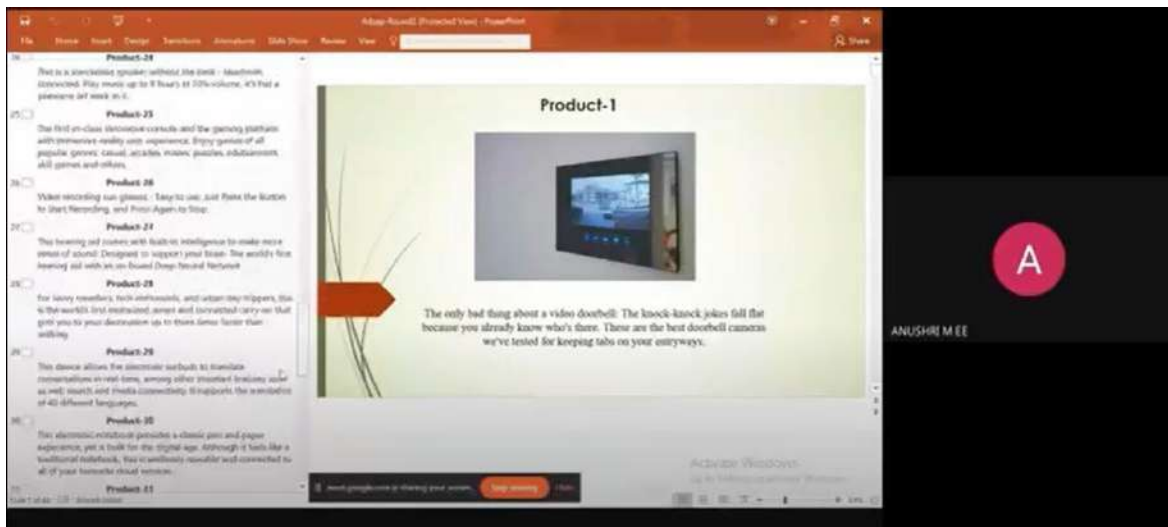
-> **Round 2: Technical Adzap**

The participant had to pitch the product to the judge convincingly and speak confidently about the product as if they had invented it. In other words, the participant had to sell the product to the judge and try to convince the judge to invest in it. The name 'Tech Adzap' is because they will be advertising a product and also every product in the list is a technical product.

-> **Round 3: Circuit debugging**

Questions were given and the solved answers were uploaded as document to [ieeesvcsc@gmail.com](mailto:ieeesvcsc@gmail.com).

The event was conducted in 2 segments- Junior & Senior. Junior segment was exclusively for 1st year students. Senior segment was for 2nd & 3rd year students. The above mentioned rounds were same for both yet varies in complete.

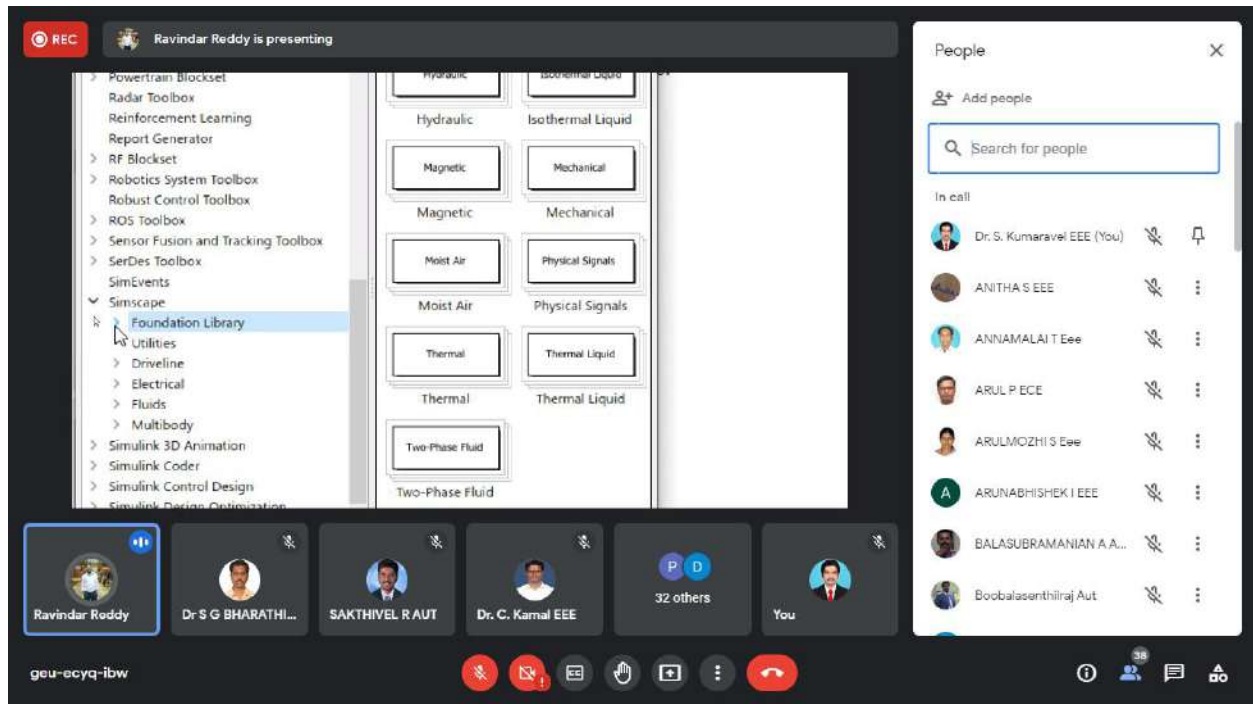
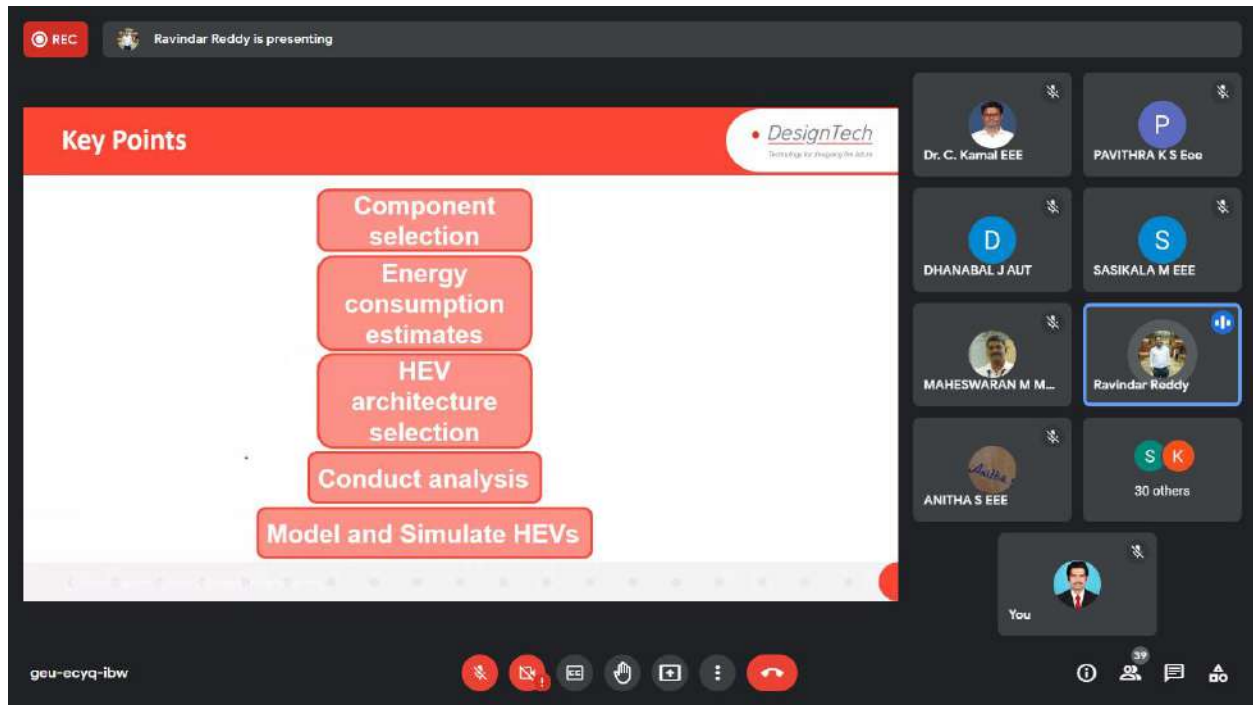


## Events organized by the department

### Five days online FDTP on “MATLAB for System and Design Engineers”

Department of Electrical and Electronics Engineering in association with Mathworks & Design Tech Systems Pvt Ltd organized a five days FDTP on “MATLAB for System and Design Engineers” From 7<sup>th</sup> -11<sup>th</sup> June 2021. The program was started. This FDTP is extremely for the faculty members of SVCE. The program was started with prayer song, Dr..KR.Santha, Professor & Head, delivered the welcome address and briefed about the significance of FDTP. This FDTP will focus on Control System Design with MATLAB & Simulation Modeling and Simulation of Hybrid Electric Vehicles, Smart Grid, Power Electronic Converters and Renewable Energy Systems using Matlab/Simulink.

Dr. Ravindar Reddy CH Engineer Technical Support, Mathworks, Design Tech Systems PvtLtd, providing training in simulation of Control System Design, Modeling and simulation of Hybrid Electric Vehicles, Smart Grid, Power Electronic Converters and Renewable Energy Systems using Matlab/Simulink during the above period. Totally around 40 participants were benefitted from the event.



Day 2 : Ravindar Reddy -12:02 PM

<https://ctms.engin.umich.edu/CTMS/index.php?example=MotorSpeed&section=SimulinkModeling>

The screenshot shows a Zoom meeting interface. The main content is a presentation slide titled "Electric Vehicle" with the DesignTech logo. The slide features a block diagram of an electric vehicle powertrain. On the left, it shows "Level 1 On-Board Charging" and "Level 2 On-Board Charging" connected to "Grid". On the right, it shows "Level 3 Off-Board Charging" connected to "Grid". The central diagram includes a "Battery Charger" (DC-DC), "Battery Pack", "Traction Drive" (DC-DC), and "Motor Drive" (Electric Motor). It also shows "Regenerative Braking (Bidirectional)" and "Power Flow (Bidirectional)". The diagram is labeled with "Wheel" and "Wheel" at the ends. A list of topics is provided on the right side of the slide:

- Motor Modelling and Simulation
- Power Converters/Inverters
  - DC-DC
  - AC-DC
  - DC-AC
- Battery Pack
- Battery Management System
- Vehicle Body

References: Liwen Pan and Chongqing Zhang

The Zoom interface includes a "REC" indicator, a "Ravindar Reddy is presenting" notification, a grid of participant video thumbnails (Ravindar Reddy, Dr S G BHARATHI DA..., ARULMOZHI S Eee, DHANABAL J AUT, DHEEBAN S S EEE, SETHURAMAN S S EEE, RAJALAKSHMI M EEE, 28 others), and a "You" thumbnail at the bottom right. The bottom of the screen shows standard Zoom controls (mute, video, chat, etc.) and the ID "geu-ecyq-ibw".

Day 3: Ravindar Reddy-11:57 AM

[https://in.mathworks.com/company/user\\_stories/alstom-grid-develops-high-voltage-direct-current-transmission-conusing-model-based-design.htmltrol-system-](https://in.mathworks.com/company/user_stories/alstom-grid-develops-high-voltage-direct-current-transmission-conusing-model-based-design.htmltrol-system-)

The screenshot shows a Zoom meeting interface. The main content is a presentation slide titled "Engineers Use MathWorks Tools Across Utility Industry Value Chain" with the DesignTech logo. The slide features a diagram of the utility industry value chain. It shows a "Generator" connected to a "Transmission system", which leads to a "Substation" and then a "Distribution system". The distribution system is connected to various loads: "Wind turbines", "Factory", "Offices", "Smart meter", "Electric vehicle", and "Smart appliances". A "Two-way communication" link connects the "System operator control and data center" to the "Distribution system". The diagram is labeled with "Power measurement unit" and "Smart switch". A list of advanced control methods is provided:

- Advanced control methods, such as distribution automation
- Improved interfaces, such as distribution system modeling software

The diagram is labeled "Source: GAO analysis".

The Zoom interface includes a "REC" indicator, a "Ravindar Reddy is presenting" notification, and a "You" thumbnail at the bottom right. The bottom of the screen shows standard Zoom controls and the ID "geu-ecyq-ibw".

## **“Experience with SVCE on March 27<sup>th</sup>”**

Experience SVCE' will be held on 27th March 2021 (Saturday) at our campus. In this connection, the HoD, EEE along with their Lab incharges and Key Faculty members on that day to guide and educate the parents /prospective students about the department highlights, laboratories, facilities, alumni, etc.

## **Industrial Visit**

Eighty-five students from 2nd year EEE went through an industrial visit at Shri Vaari Electricals Private Limited, Industrial Estate, Guindy- Chennai on 26.02.2021 and 27.02.2021

Thirty students from 3rd year EEE went through an industrial visit at Shri Vaari Electricals Private Limited, Industrial Estate, Guindy- Chennai on 5.03.2021 and 6.03.2021.



## Research Centre Activities



Mr S. Kumaravel (2011173021), Assistant Professor, defended his thesis through online mode "Some Investigations on Primary Frequency Response Analysis of Grid Connected Variable Speed Wind Energy Conversion Systems" on 05.03.2021 at 9 AM in the Department of Electrical & Electronics Engineering, Sri Venkateswara College of Engineering under the guidance of Dr S.G.Bharathi Dasan, Associate Professor, EEE, SVCE. Google meet link: <https://meet.google.com/cii-fqcq-aae>

## Faculty Publications

Dr. R. Kannadasan, Assistant Professor, published a paper title 35 "Short Term Power Dispatch Using Neural Network Based Ensemble Classifier, Journal of energy storage" Journal of energy storage Elsevier 2021.

Dr. R. Kannadasan, Assistant Professor, published a paper title "Design and Validation of BAT Algorithm Based Photovoltaic System Using Simplified High Gain Quasi Boost Inverter Energies" Journal of MDPI 2021.

Dr. R. Kannadasan, Assistant Professor, published a paper title "Sensor less parameter estimation of VFD based cascade centrifugal pumping system using automatic pump curve adaption method" Energy Reports-Elsevier 7, 453–466, 2021.

Dr. R. Kannadasan, Assistant Professor, published a paper title "Techno-Economic Investigation of Wind Energy Potential in selected Sites with Uncertainty Factors" Sustainability, 13, 2182, 2021.

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S.S. Sethuraman, Assistant Professor and Dr. KR. Santha, Professor & Head published a paper title “Modified high efficiency bidirectional DC–DC converter topology” Journal of Power Electronics, 2021.

Dr. N.K. Mohanty, Professor, published a paper title “Seven levels fuzzy rule-based controller for modified shunt active line conditioner” International Journal of Electronics 2021.

Dr. T. Annamalai, Assistant Professor, published a paper title “H-Bridge Inverter Cascaded with Nested Developed H-Bridge Inverter” Research Publication and Reviews 2021.

N. Shanmugavadivu, Assistant Professor and Dr. KR. Santha, Professor & Head published a paper title “High-gain dual-input multiple-output (DIMO) boost converter for low-power grid connected micro inverter applications” International Transactions on Electrical Energy Systems 2021.

Mr. R. Karthikeyan, Associate Professor published a paper “Viscoelastic characteristic iron powder core for reducing vibration and noise radiated by switched reluctance machine” Materials Today: Proceedings Journal 2021.

Mr. R. Karthikeyan, Associate Professor published a paper “Development of an iron powder metallurgy soft magnetic composite core switched reluctance motor” Materials Today: Proceedings Journal 2021.

C. Gopinath, Associate Professor, published a paper “Highest Voltage Sag and Swell Compensation Using Single Phase Matrix Converter with Four Controlled Switches” Journal of Przegląd Elektrotechniczny 2021.

Dr. R. Kannadasan, Assistant Professor and Mr. C. Venkatesan, Assistant Professor published a paper “A Novel Multi objective Hybrid Technique for Siting and Sizing of Distributed Generation and Capacitor Banks in Radial Distribution Systems” Journal of Sustainability 2021

Dr. R. Kannadasan, Assistant Professor and Mr. C. Venkatesan, Assistant Professor published a paper “Powering Mobile Networks with Optimal Green Energy for Sustainable Development” Journal of Computers Materials and Continua 2021.



Dr. R. Kannadasan, Assistant Professor and Mr. C. Venkatesan, Assistant Professor published a paper “Optimal Cost-aware Paradigm for Off-grid Green Cellular Networks in Oman” Journal of Computers Materials and Continua 2021.

Dr. R. Kannadasan, Assistant Professor, published a paper “Adaptive cell zooming strategy towards next generation cellular networks with joint transmission” Journal of Computers Materials and Continua 2021.

Dr. R. Kannadasan, Assistant Professor, published a paper “An Evaluation on Wind Energy Potential Using Multi-Objective Optimization Based Non-Dominated Sorting Genetic Algorithm III” Journal of Sustainability 2021.

### **Faculty Participation in FDPs/Workshops / Conferences**

Dr. N.K. Mohanty, Professor, attended two days National seminar on “Enhancing Quality Teaching Strategies through Outcome Based Education” at Dept of EEE, IQAC, Kongu Engineering College, Erode , from 2<sup>nd</sup> to 3<sup>rd</sup> March 2021.

Dr. N.K. Mohanty ,Professor, attended five days’ workshop on “Recent research trends and future research direction in solar energy technologies” at NIT Tiruchirappalli from 18<sup>th</sup> to 22<sup>nd</sup> May 2021.

Dr. N.K. Mohanty, Professor, and Dr. S.G. Bharathidasan Associate Professor attended AICTE Sponsored One Week- Online STTP “Energy Conservation and Audit” at Sharad Institute of Technology College of Engineering Yadrav, Pune from 14<sup>th</sup> to 19<sup>th</sup> June 2021.

Dr. Sudhakar K B Professor attended one day workshop on “Modeling Optoelectronic Devices with COMSOL” organized by COMSOL on 28<sup>th</sup> January 2021.

Dr. Sudhakar K B, Professor, attended one day workshop on “Simulation in Engineering Education and Research” organized by COMSOL on 4<sup>th</sup> March 2021.

Dr. Sudhakar K B, Professor attended one day workshop on “Modeling Low-Frequency Electromagnetics with COMSOL Multiphysics” organized by COMSOL on 6<sup>th</sup> April 2021.

Mr. V. Mohanraj, Assistant Professor, attended six days AICTE-ISTE Induction/Refresher Program on 'Solar PV System Design Using IoT' at SVCE from 3rd to 9<sup>th</sup> March 2021.

Dr. S.G. Bharathidasan, Associate Professor, Dr. S. Kumaravel, Mr. C. Venkatesan, Ms. K. Suganthi, Mr. S.S. Sethuraman, Dr. T. Annamalai, Ms. S. Anitha, Ms. M. Rajalakshmi & Assistant Professor attended six days AICTE-ISTE Induction/Refresher Program on 'Solar PV System Design Using IoT' at SVCE from 31<sup>st</sup> March to 8<sup>th</sup> April 2021.

Dr. C. Gopinath Associate Professor Ms. N. Shanmugavadivu, Mr. D.S. Purushothaman, Dr. M. Sankar, Dr. C. Kamal, Ms. M. Maadhuri Assistant Professor attended six days AICTEISTE Induction/Refresher Program on 'Solar PV System Design Using IoT' at SVCE from 5<sup>th</sup> to 11<sup>th</sup> May 2021.

Dr. S.G. Bharathidasan Associate Professor, Ms. S. Arulmozhi, Dr. S. Kumaravel, Mr. C. Venkatesan, Ms. K. Suganthi, Mr. S. Sudharsanam, Mr. M. Ranjithkumar, Ms. K.S. Pavithra, Mr. G. Vinothkumar, Ms. M. Rajalakshmi, Dr. C. Kamal, Mr. S. Thamizmani & Ms. M. Maadhuri Assistant Professor attended six days AICTESTTP on "Electric Vehicle Evolution-Impact on Power Grid" from 19<sup>th</sup> to 24<sup>th</sup> April 2021.

Ms. S. Arulmozhi, Assistant Professor, attended webinar on "Design Teaching Experience" organized by The Skill Factory, Bangalore on 14<sup>th</sup> June 2021.

Ms. S. Arulmozhi, Assistant Professor, attended three days AICTE sponsored "Examination Reforms Workshop" organized by AICTE & KLE Technological University, Hubli, Karnataka from 28<sup>th</sup> to 30<sup>th</sup> June 2021.

Ms. M. Sasikala, Assistant Professor, attended two days' workshop on "Electronic Software Tools and PCB design" at MIT College of Railway Engineering and Research, Barshi from 22<sup>nd</sup> to 23<sup>rd</sup> May 2021.

Ms. M. Sasikala Assistant Professor attended webinar on 32 "Advanced Functional Nanomaterials and their Applications" at Sri Ramakrishna college of Engineering, Coimbatore on 9<sup>th</sup> March 2021.

Mr. C. Venkatesan, Ms. K. Suganthi & Mr. S. Sudharsanam Assistant Professor, attended two days' workshop on "Mathematical Modelling and its application to Electrical Engineering" at SSN College of Engineering from 18<sup>th</sup> to 19<sup>th</sup> February 2021.

Mr. S. Sudharsanam, Assistant Professor, attended webinar on “Functional Materials” at Jagat Arts, commerce & I.H.P Science College Nagpur on 21<sup>st</sup> February 2021.

Mr. S. Sudharsanam, Assistant Professor, attended webinar on “Biometrics for Health care Applications” at SVCE on 25<sup>th</sup> June 2021.

Mr. S.S. Sethuraman, Assistant Professor, attended webinar on “Adaptive EMC design for Wide Bandgap Power Converters in Aviation Applications” organized by IEEE Continuing Education from 9<sup>th</sup> February to 10<sup>th</sup> February 2021.

Mr. S.S. Sethuraman, Assistant Professor, attended two Days Virtual Workshop on “Design of Inverters and Battery Pack for Electric Vehicle Applications” at SSN College of Engineering from 4<sup>th</sup> to 5<sup>th</sup> March 2021.

Ms. S. Anitha, Assistant Professor, attended five days’ workshop on “Short term course on Sustainable Development through Renewable Energy” at NIT Kurukshetra from 16<sup>th</sup> to 20<sup>th</sup> March 2021.

Mr. S.S. Sethuraman, Ms. K.S. Pavithra, Dr. M. Sankar, Dr. C. Kamal & Mr. G. Vinothkumar Assistant Professor attended AICTE sponsored One Week Short Term Training Program on “Applied Soft Computing and Vision Machine Techniques” (Series IV) at Dr. MGR University from 31<sup>st</sup> May to 5<sup>th</sup> June 2021.

Ms. S. Sinthaman, Assistant Professor, attended Webinar on ‘Publishing Ethics’ organized by the Taylor & Francis Group on 23<sup>rd</sup> March 2021.

Mr. G. Vinothkumar Assistant Professor attended one day International Seminar on “Exploring Realtime Technology” Mohammed Sathak A.J College of Engineering on 31<sup>st</sup> May 2021.

Dr. C. Kamal , Assistant Professor, attended Webinar on " Advance Instrumentation System in Thermal Power Plant" at SRM Eeswari Engineering College on 25<sup>th</sup> June 2021.

Dr. R. Kannadasan, Assistant Professor, attended webinar on "Publishing in High Ranked Journals: A Beginner's Guide" organized by Udemy Academy on 26<sup>th</sup> March

Dr. S.G. Bharathidasan ,Associate Professor, attended three Days AICTE sponsored Faculty Development Program on “Impact of Controllers in Power Electronics Converter for Electric Vehicles” at Dr. N.G.P. Institute of Technology from 1<sup>st</sup> to 3<sup>rd</sup> June 2021.

Dr. S.G. Bharathidasan Associate Professor, Ms. S. Arulmozhi, Ms. M. Sasikala, Dr. S. Kumaravel, Ms. N. Shanmugavadivu, Mr. C. Venkatesan, Ms. K. Suganthi, Mr. S.S. Sethuraman, Dr. T. Annamalai, Mr. M. Ranjithkumar, Ms. S. Anitha, Mr. D.S. Purushothaman, Ms. K.S. Pavithra, Ms. S.S. Sinthamani, Mr. V. Mohanraj, Mr. G. Vinothkumar, Dr. M. Sankar, Mr. S. Thamizmani Assistant Professor attended five days Faculty Development Program on “MATLAB for System Design Engineers” at SVCE from 7<sup>th</sup> to 11<sup>th</sup> June 2021.

Dr. S.G. Bharathidasan, Associate Professor, attended five Days International Faculty Development Program on "Challenges in Energy Management for Smart Cities" at AVIT, Vinayaga Missions Research Foundation.

Ms. S. Arulmozhi , Assistant Professor, attended five days Faculty Development Program on “Team-building and Coordination” Gandhi Institute of Technology and Management –GITAM from 15<sup>th</sup> to 19<sup>th</sup> February 2021.

Ms. S. Arulmozhi Assistant Professor, attended four days Faculty Development Program on ““Interactive Approaches in Handling Renewable Energy Systems Laboratory for the New Normal” at SSN College of Engineering from 29<sup>th</sup> June to 2<sup>nd</sup> July 2021.

Ms. M. Sasikala, Mr. S. Sudharsanam & Ms. S. Sinthamani Assistant Professor attended two days Faculty Development Program on “Advances in Photonics and Fiber Optics Technologies” at IETE Chennai Centre & IEEE Photonics Society Madras Chapter from 21<sup>st</sup> to 22<sup>nd</sup> June 2021.

Ms. K. Suganthi & Ms. D. Amudhavalli Assistant Professor, attended three days Faculty Development Program on “Citation Style and Reference Lists” at Siva Sivani Institute of Management - Department of Data Science from 21<sup>st</sup> to 23<sup>rd</sup> June 2021.

Mr. S.S. Sethuraman, Ms. K.S. Pavithra, Ms. S. Sinthamani, Ms. M. Maadhuri Assistant Professor attended two days Faculty Development Program on “Emerging Research Trends on Battery and Electric vehicle technology” at SSN College of Engineering from 25<sup>th</sup> to 26<sup>th</sup> February 2021.

Dr. T. Annamalai Assistant Professor, attended five days ATAL academy Faculty Development Program on "Design Thinking" from 4<sup>th</sup> to 9<sup>th</sup> January 2021.

Dr. T. Annamalai Assistant Professor, attended six days Faculty Development Program on "EE8552- Power Electronics" at Chennai Institute of Technology from 7<sup>th</sup> to 12<sup>th</sup> June 2021.

Ms. S. Anitha Assistant Professor attended five days Faculty Development Program on "Advanced Materials: Challenges and Opportunities" at BMS Institute of Technology and Management from 17<sup>th</sup> to 21<sup>st</sup> May 2021.

Ms. S. Anitha Assistant Professor, attended five days Faculty Development Program on "Future Perspective of Semiconductor Devices" at Kalasalingam Academy of Research and Education from 21<sup>st</sup> to 26<sup>th</sup> June 2021.

Ms. K.S. Pavithra Assistant Professor, attended five days Faculty Development Program on "Fundamentals of AI" at ICT Academy from 14<sup>th</sup> to 18<sup>th</sup> June 2021.

Ms. K.S. Pavithra & Ms. M. Maadhuri , Assistant Professor, attended two weeks Faculty Development Program on "Trends and Challenges in Power Converters and Control" at Anna University from 4<sup>th</sup> to 18<sup>th</sup> May 2021.

Dr. C. Kamal, Assistant Professor, attended 5 days IET sponsored Faculty Development Program on "Recent Trends and Research Perspective on energy and Power system" at PSN College of Engineering and Technology, Tirunelveli from 31<sup>st</sup> May to 4<sup>th</sup> June 2021.

Mr. S. Thamizmani Assistant Professor, attended five days ATAL academy Faculty Development Program on "Electrical Distribution System Analysis with Renewable Energy Sources" at NIT Kurukshetra from 12<sup>th</sup> to 16<sup>th</sup> July 2021.

