

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

IMPRESSIONS



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DEPARTMENT NEWS LETTER | 2019-20

IMPRESSIONS

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ABOUT

THE DEPARTMENT OF EEE

Electrical & Electronics Engineering arena stands tall at the front facet of the newest technology. Moving beyond wires and circuits, the discipline now is taking giant strides as it percolated into cutting-edge technologies. The Department adopted the following approaches for enhancing learning experiences among the students, Self-Learning, Participative Learning, and Problem Solving Methodologies. The Department is recognized as Research centre by the affiliating university. The average age and experience of the faculty of EEE department is quite significant. The faculty retention ratio of the department is also quite significant.

QUALITY POLICY

Sree Vidyanikethan Engineering College strives to establish a system of quality assurance to continuously address, monitor and evaluate the quality of education offered to students, thus promoting effective teaching processes for the benefit of students and making the College a Centre of Excellence for Engineering and Technological studies.

VISION:

- ❖ To become the nation's premiere Centre of excellence in electrical engineering through teaching, training, research and innovation to create competent engineering professionals with values and ethics.

MISSION:

- ❖ Imparting Knowledge through implementing modern curriculum, academic flexibility and learner centric teaching methods in Electrical Engineering.
- ❖ Inspiring students for aptitude to research and innovation by exposing them to industry and societal needs to create solutions for contemporary problems.
- ❖ Honing technical and soft skills for enhanced learning outcomes and employability of students with diverse background through comprehensive training methodologies.
- ❖ Inculcate values and ethics among students for a holistic engineering professional practice.

PROGRAM SPECIFIC OUTCOMES

On successful completion of the program, engineering graduates will be able to

- PSO1. Plan to conserve and harness electrical energy using electrical and electronic systems for sustainability.
- PSO2 Use domain specific tools to analyze, design and develop electrical and electronic systems for feasible operation and control of Electrical and Electronic Systems.
- PSO3 Develop operating strategies for utilization of energy and application of Electrical and Electronics systems in relevance to industry and society.

PHILOSOPHY

- ❖ To train and enable the students holistically to provide effective solutions for the problems in the field of electrical engineering that are useful to the society involving ethics and morals.

BEST PRACTICES

- ❖ Conducting Skill development programs for improving placement rate and making students industry ready.
- ❖ Conducting Add-on courses to bridge the gap between industry and academia.
- ❖ Encouraging the students to carryout diversified and real time valued projects as solution to the industrial, day-to-day problems as a part of their academic curriculum.
- ❖ Uplifting the academically weaker students by conducting Remedial and Reinforcement Classes.
- ❖ Performing Annual Energy Audit to monitor the energy consumption and demand of the Institution and propose energy conservation measures if required.
- ❖ Performing energy audit in the nearby villages and propose energy conservation measures.
- ❖ Conducting Technical Talks on Recent Trends in Electrical Engineering helps in updating the core knowledge and enhancing the academic standards among the Faculty and Students.
- ❖ Peer Training to students.
- ❖ Innovative Talks and Idea Presentation by the Students.

❖ **Dr. T. Nageswara Prasad**, Professor has taken charge as the Vice-Principal from 30th August, 2019.

❖ **Dr. G Harikrishnan**, Associate Professor has taken charge as **Research Coordinator**, Centre for Energy from 1st July, 2019.

DEPARTMENT INITIATIONS

M/s. Orb Energy, Bengaluru sponsored 1.8 kW Wind Integrated Solar Hybrid (WISH) System was erected and commissioned in the month of January 2020. It includes 1.2kWp Solar PV System, 0.6kW Wind Turbine Generator, WISH controller, 4 Nos. 150AH 24V Battery Bank and 2 kW, 48V Power Conditioning Unit (PCU).

The complete Lighting load of Centre for Energy is being powered by the aforesaid WISH system. Focused research in the area of Solar PV and Wind Energy systems can be carried-out by using this system.

TEACHING & LEARNING

To make students to understand the industrial practices and technology, an Add-on course on “Basic Electrical Application design using Arduino” was conducted during 2nd to 13th August 2019, and a total number of 24 students were benefited.

Through Diagnostic Test, Formative Test and Internal-Exam, 171 no. of weak and slow learners were identified and by conducting remedial and reinforcement classes, their pass percentage has been improved by 90 %.

Total 215 Students undergone Internship training in various reputed Industries like BHEL, Hyderabad; Balaji Energy Private Limited, Nellore; 132 KV / 33 KV, A P TRANSCO, Chandragiri; DRDO, New Delhi; ISUZU Motors India Pvt. Ltd., Sricity; A P TRANSCO, Nandyal Division; T. L. & S. S. Kurnool Division; NIPPO Batteries India Pvt. Ltd.; TADA.; RCI, DRDO, Hyderabad; Cognizant Technology Solutions; Sunny Opotech India Pvt Ltd.; CPC Diagnostics Pvt. Ltd.; and APSSDC-SIEMENS Pvt Ltd. SVU, Tirupati.

Total 175 Students were placed in various reputed organizations like CTS, INFOSIS, WIPRO, MEIL, Effectronics and SONATA through On-Campus and Off Campus Placements.

The B.Tech. Program, Electrical & Electronics Engineering was re-accredited (third cycle of accreditation) by NBA for three years from 03.03.2020 to 30.06.2023.

RESEARCH

In its stride of enhancing its potential in the spectrum of academics, research is being promoted and carried out within the department.

Widespread of research is being carried in the areas of Power Quality Improvement, High Voltage Engineering, Control Systems, Renewable Energy & Grid Integration, Energy Storage, FACTS, Embedded Systems, IoTs, Online Condition Monitoring of Electrical Apparatus, Special Purpose Machineries, etc.



- ❖ Total 13 research papers were published in the reputed journals including SCI, SCOPUS and WOS.
- ❖ Total 21 research findings were presented in various reputed international conferences.
- ❖ Total 03 Members of Faculty acted as reviewers in the peer review of manuscripts submitted to various national and international journals.
- ❖ Total 11 Research Projects worth Rs.7.21 Crores were submitted to various funding agencies to grab financial assistance.

ICSCCS-2019:

An AICTE sponsored International Conference of Smart Computing and Control of Systems (ICSCCS-2019) was organized during 17th to 19th October 2019. It brought together a wide range of researchers, academicians, and research scholars working on the subject title.

It served as the multi-disciplinary platform for exchanging innovative ideas and thoughts on the Smart Computing & Control of Systems and their applications to the society. This scientific meeting had 5 International & 5 National Keynote sessions and in the scheduled sessions 82 Research papers were presented.



President of International Conference, Mr. Vishnu Manchu, Revered CEO, SVET; Chief Guest, Dr. R. Nagaraja, Founder and MD, PRDC Bengaluru; Guests of Honor, Prof. L. Venugopal Reddy, Advisor cum Director, SVET & Dr. Lazar Mathew, Research Advisor, SVET; Convener, Prof. M. S. Sujatha, HoD, Dept. of EEE inaugurated the conference.

EXPERT LECTURES

Series of Guest, Expert Lectures and Faculty Development Programmes were organized to explore the knowledge acquired through academic courses by interaction with industry experts. These sessions provide platform to students to express their ideas and view and get benefitted to relate theoretical with practical inputs of field. Series of such session pour an extra enthusiasm to students to give practical approach to their study.

Dr. C. Bharatiraja from SRM University Chennai delivered a lecture on "Research Paper & Project Proposal Writing" in a Faculty Development Program organized under IEEE Student Branch during 15th to 16th May 2020.



Ms. Sheela Chowdary, Program Instructor & Research Engineer in Hyundai Mobis; Project Lead & Director of Aplihs Software Solutions, Hyderabad, delivered a Guest Lecture on "Ethical Hacking" under IEEE student chapter on 09th Sept ember 2019.



Dr. G. Thulasiram, Principal Electrical Engineer, McDermott, Chennai, India, delivered a Guest Lecture on "Design, Installation, Commissioning, Operation & Maintenance of Gas Insulated Substation (GIS)" on 31st August, 2019.



"During the AY: 2019-20 Total 10 Series of Guest, Expert lectures and Faculty Development Programmes were conducted.

INDUSTRIAL VISITS

Industrial visit is considered as an important part of an academic curriculum to provide an exposure to students about practical working environment and also to correlate the theoretical conception with practicing techniques. Conducting such visits provides students a good opportunity to gain full awareness about industrial practices and an excellent opportunity to interact with practicing engineers.



Total 163 students visited the following reputed industries during AY: 2019-20.

- ❖ 400kV substation, Vepanjeri, Chittoor, Andhra Pradesh.
- ❖ 400kV substation Kalikiri, Chittoor, A.P.
- ❖ 220/132/33kV Substation, Kalikiri, Chittoor, A.P.

During the AY: 2019-20 Total 3 Industrial Visits were conducted.

OUTREACH ACTIVITIES

Under Electrical Systems Design & Green Power (ESD & GP)-Training Centre, series of Joint Outreach events had been planned with a motto to sprout and enhance the industry demanded academic skills among Students, Green Adaptive Professionals and Practicing Electrical Engineers.

M/s. Advanced Ultra Power Transmission Consultancy (AUPTC), Gurgaon acknowledged the association with Sree Vidyanikethan Engineering College (SVEC) to organize Joint Certification Programs under 'Electrical Systems Design and Green Power - Training Centre at Sree Vidyanikethan Engineering College, Tirupati.

In the AY: 2019-20, ESD & GP-Training Centre offered allied courses under Solar PV Power Infrastructure and Solutions. After successful completion of those courses offered, the participants will be able to take-over and perform recourse assessment and complete electrical system design for Solar PV Power Systems and prepare 'Detailed Project Report' that helps in setting up commercial power projects.

Trainees-ESD & GP-TC



SOCIAL - SERVICE

Social Service or Social Work is the work done by individuals for the benefit of the society. It is aimed to promote social transformation or a development in the society. As students are future of our country, they should know how to interact socially, how to understand other people's problems and how to work for the social betterment of the society. This leads to mutual benefit for both society and students.



MAJOR EVENTS

- Online Yoga Workshop
- 3-Day Online Guided Free Workshop on Asanas, Pranayama & Meditation
- Drug free India Campaign

During the AY: 2019-20 Total 02 events were conducted under NSS.

STUDENT'S CORNER

ELECTRICAL TECHNICAL ASSOCIATION

Under the department's student body Electrical Technical Association (ETA), various events viz., Mock interviews, Innovative talks, General and Technical Quiz, Circuitrix, Group discussion, Singing, Spell-Bee, Chess, , Pencil sketch, Toggle, Rangoli Various games and Sports for boys and girls, etc were conducted to enhance the interpersonal and intrapersonal skills of students.



Awareness on yoga and hygiene for girls



Singing



Volley Ball



Kho-Kho

During the AY: 2019-20, Total 25 events were conducted under ETA.

Electrical Systems Design & Green Power (ESD & GP)-Training Centre

**Internship Program On
SOLAR PV POWER INFRASTRUCTURE AND SOLUTIONS
(2nd to 13th December, 2019)**



Certified Trainees with

Honorable Principal, Dr. P C Krishnamachary; Professor & Dean Industry Relations, Dr. S. Hemachandra; HOD- EEE, Dr. M S Sujatha; Lead Trainer, Mr. K. Leledhar Rao; Trainer, Mr. D. Jagadeesh and Supporting Faculty, Ms. R. Sindhuja

Under Electrical Systems Design & Green Power (ESD & GP)-Training Centre, Total Two Programmes were organized and 56 Members got trained successfully during AY: 2019-20.