

# DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

## IMPRESSIONS



### **EDITOR(S)**

Mr. K. Leleedhar Rao, Assistant Professor  
Mr. I. Kumara Swamy, Assistant Professor

### **Student Members**

Representatives from M.Tech; IV, III & II B.Tech EEE

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# 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. New PG programme M.Tech. (PED) was started from the AY 2017-2018. Department is recognized as Research center 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:

- ❖ Department of Electrical Engineering strives to create human resources in Electrical Engineering to contribute to the nation development and improve the quality of life.
- ❖ 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

### B. Tech

- PS01. Demonstrate knowledge of Electrical and Electronic circuits, Electrical Machines, Power Systems, Control Systems, and Power Electronics for solving problems in electrical and electronics engineering.
- PS02 Analyze, design, test and maintain electrical systems to meet the specific needs of the Industry and society.
- PS03 Conduct investigations to address complex engineering problems in the areas of Electrical Machines, Power Systems, Control Systems and Power Electronics.
- PS04 Apply appropriate techniques, resources and modern tools to provide solutions for problems related to electrical and electronics engineering.

### M. Tech (EPS)

- PS01. Demonstrate specialized knowledge in Electrical power systems, its operation and control with an ability to combine existing and recent practices.
- PS02 Analyze and solve complex problems to obtain optimal solution in power system operation and control to meet the needs of industry and society.
- PS03 Demonstrate research competence in power system to design innovative products and provide services in the field of electrical power systems and related areas.
- PS04. Apply modern tools, techniques and resources to provide solutions to complex engineering problems related to electrical power systems.

## 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.
- ❖ Encouraging the Faculty members to carry out the research that helps in acquiring higher qualifications like PhD.
- ❖ Performing Annual Energy Audit to monitor the energy consumption and demand of the Institution and propose energy conservation measures if required.
- ❖ 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.

## DEPARTMENT INITIATIONS

Under MODROBS, the following equipment related to Power Electronics Laboratory Course has been procured.

- Cyclo-Convertor based AC induction motor controller.
- 3-ph Input, Thyristorised Drive , 1 HP DC Motor with closed loop
- 3-ph Multilevel Inverter
- Digital Storage oscilloscope 100 Mhz

MiPower Power System software has been upgradated to MiPower - 9.1 version.

## TEACHING & LEARNING

To make students to understand the industrial practices and technology, the following Add-on courses were conducted, and a total number of 304 students were benefited.

- Introduction to PSPICE and its Applications during 14<sup>th</sup> -16<sup>th</sup>& 18<sup>th</sup>, 21<sup>st</sup>, 22<sup>nd</sup> September, 2015.
- Paper and Report Writing during 27<sup>th</sup>& 28<sup>th</sup> June, 2016.

Through Diagnostic Test, Formative Test and Internal-Exam, 615 no. of weak and slow learners were identified and by conducting remedial and reinforcement classes, their pass percentage has been improved by 83%.

By conducting placement training program, placement rate has been improved by 9.67%.

Total 137 Students undergone Internship training in various reputed Industries like RTPP, BHEL, ECIL, BOSCH, VTPP, VIZAG STEEL PLANT, etc.

Total 92 Students were placed in various reputed organizations like CTS, INFOSIS, WIPRO, ADP, DST and SONATA through On-Campus and Off Campus Placements.

## RESEARCH

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.



Real time Simulation Model for Enhancement of Voltage Stability using DG

- ❖ Mr. D. Suresh Babu, Assistant Professor & Mr. U. Kamal Kumar, Assistant Professor received **Best Research Paper Award** at National Conference on Recent Advancements in Power and Energy Systems held at Annamachariya Institute of Technology, Rajampet, Andhra Pradesh, India in 25-26 April 2016.



- ❖ Mr. D. Suresh Babu, Assistant Professor received **Dr. Muhammad Harunur Rashid Award** for second Best Paper with Cash prize of Rs. 10000 (Rupees Ten thousand only) in International Conference on Renewable Energy Utilization (ICREU 2016) held at Coimbatore Institute of Technology, Coimbatore, Tamil Nadu, India in 6-8 January 2016.

Mr. K. Leleedhar Rao, Assistant Professor received **Bright Idea Innovator Award** for presenting an innovative idea in the workshop cum exhibition organized by DSIR-PRISM-TOCIC at Sri Padmavathi Mahila Vishwa Vidyalayam, Tirupation 29<sup>th</sup> April, 2016.

- ❖ Total 45 research papers were published in the reputed journals including SCI, SCOPUS and WOS.
- ❖ Total 5 Members of Faculty received letter of appreciation for their valuable contribution and dedicated service in the peer review of manuscripts submitted to various national and international journals.
- ❖ Total 4 Members of Faculty were invited as Speakers and Session Chairs for various National & International Conferences, Symposiums and Technical committee members.
- ❖ Dr. P. Umapathi Reddy, Professor was appointed as Enforcement Officer for AP EAMCET-2016 at PSR Nellore on 28<sup>th</sup>& 29<sup>th</sup> April, 2016.

## EXPERT LECTURES

Series of Guest & Expert lectures 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 student to give practical approach to their study.

Mr. Dasari Ramakrishna, Managing Director and Mr. Bhavani Shankar, Executive Manager, M/s Efftronics Systems Pvt. Ltd., Vijayawada delivered an expert lecture on "Emerging Trends in Engineering and Technology" on 3<sup>rd</sup> March, 2017.



Dr. A. Sivathanu Pillai, an Indian Scientist and Honorary Distinguished Professor at ISRO and a Honorary Professor at IIT Delhi delivered an expert lecture on "Innovation, Technology and Youth" on 6<sup>th</sup> February, 2017.



Mr. Damodara Nambeti, ADE, APSPDCL, Tirupati delivered an expert lecture on "Basics of Smart Grid Technology and its Elements" under TEQIP-II on 11<sup>th</sup> January, 2017.



During the AY: 2016-17, Total 9 Expert and Guest Lectures were organized.

## 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 42 members of PG Students and Faculty visited 400kV substation, Vepanjeri, Chittoor, A.P on 25<sup>th</sup> January, 2017.



Total 43 members of students and Faculty visited 3MW Solar PV Power Plant at Kalikiri, Chittoor, A.P.on 25<sup>th</sup> January, 2017.



Total 41members of students and Faculty visited 220/132/33kV Substation, Kalikiri, Chittoor,A.P. on 25<sup>th</sup> January, 2017.



Total 47 members of students and Faculty visited 220kV substation, Renigunta and 132kV substation, Tirupathi Chittoor, A.P. on 25<sup>th</sup> January, 2017.

During the AY: 2016-17, Total 4 Industrial Visits were conducted.

## OUTREACH ACTIVITIES

Pradhan Mantri Kaushal Vikas Yojna for Technical Institutions (PMKVY-TI) scheme is being implemented with a vision to create skilled manpower to drive the flagship schemes of Government (Make in India, Digital India and Unnat Bharat). In support to these schemes, Sree Vidyanikethan Engineering College has been selected as one of the Institutes under PMKVY under AICTE for imparting engineering technical skills training for free of cost.

**Assistant Electrician** is one of the specializations of Construction Sector. Department of EEE is taking over the responsibility in giving the Training under mentorship of Construction Skill Development Council of India (CSDI) and NSDC. Total 21 unemployed youth were enrolled to undergo training under this scheme.

**Trainee Assistant Electricians**



## 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

- Tree Plantation & Environmental Issues
- Blood Donation Camp
- Health Camps
- Swachh Pakhwad
- Hygiene & Cleanliness



During the AY: 2016-17, Total 3 events were conducted.



## STUDENTS CORNER

### ELECTRICAL TECHNICAL ASSOCIATION

Under the department's student body Electrical Technical Association (ETA), various events viz., Career development programs, Seminars, Quiz, Industrial visits, Paper contests, Group discussions, Guest lectures, Career guidance sessions and Games were conducted to enhance the interpersonal and intrapersonal skills of students.



Debate



MOCK Interview



Rangoli



Technical Quiz

During the AY: 2016-17, Total 20 events were conducted under ETA.

