



# SAPTHAGIRI COLLEGE OF ENGINEERING

(IAO9001-2015 and ISO14001-2015 certified institute)

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

February -2020

Vol-IV Issue-1

# EEE MAGAZINE

Power is Knowledge...Knowledge is Power.

## VISION

To Create globally competent Electrical and electronics Engineers who can contribute to the growth of the nation and serve the society.

## MISSION

- \* To impart students centric quality education
- \*To nurture the talents and impart moral values to the students
- \*To keep abreast the technical knowledge among students and faculty with industry-Academia interaction.
- \*To enrich Research and Innovation methods in students and faculty

## Statement Of PEO's

Graduate Engineers will be able to:

PEO1: Apply scientific, Mathematics and Engineering fundamentals gained to comprehend,analyse,design and create products and solutions for real life problems

PEO2: Contribute to industrial services and government organisations by applying their skills gained through formal education.

PEO3: Work on emerging technologies with professional communities,higher education ever developing careers to strengthen human values and social responsibilities to contribute towards society.

PEO4:Adopt professional and ethical attitude for effectively resolving societal problems through multidisciplinary approach

## Editorial Team:

Associate Professor: Prof. Rekha SN

Assistant Professors:

Prof. A .Dhamodaran

Prof. Preetha NP

Prof. MahaVishnu KBP

Student Co-ordinator:

Ajay S Pai

Dasharath

Arpitha P

Praveen J

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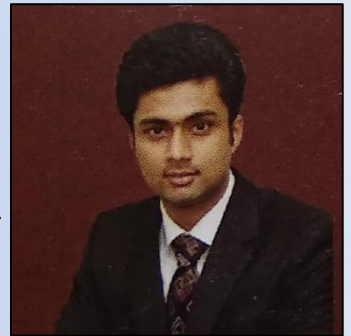
## **Chairman: Sri G. Dayanand**

The "EEE MAGAZINE" is providing great space for the faculty and students to pen down their innovative ideas, imagination and perceptions to show case their creativity. So, I take the opportunity to congratulate the department of EEE and its editorial team to successful release of this issue. I am sure that students and faculty will find the content of this edition very interesting and educating.



## **Executive Director: Sri G. D Manoj**

I am indeed happy to know that the department of EEE has taken initiative in realizing its "EEE MAGAZINE" and urge faculties and students to make use of the platform to share and educate among themselves in publishing article pertaining to the emerging domain and articles of interesting. I congratulate the team of editorial community and department of EEE



## **Principal's Message- Dr. H Ramakrishna**

It gives me immense pleasure to note that, SCE has been publishing bi-annual newsletter and I am sure, this will provide an opportunity for the faculty and students to share their knowledge and beacon the information about various issues and activities that are being taking place in the department. I look forward for more activities and achievements for the department to march towards excellence in the future. I would like to thank all teaching, supporting staff and our beloved students for their active participation in publishing this magazine. My special compliments and congratulation to the editorial team of the department for their consistent effort in publishing this newsletter.



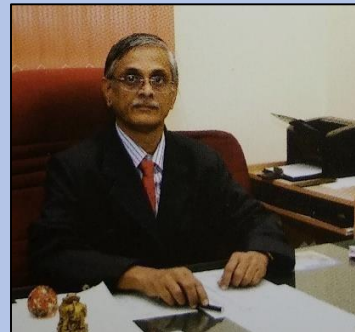
## **Vice- Principal's Message- Dr M H Annaiah**

I am very happy and delighted to know that our college is bringing out the college newsletter. SCE is one of the leading premier engineering colleges in the country offering quality technical education to students thereby enabling them to become globally acceptable engineers in their domains. The newsletter provides a platform for both faculty and students to showcase their achievements and hidden talents. I congratulate our beloved principal and members of editorial board for bringing out this excellent and informative newsletter on time.



## HOD'S MESSAGE- Dr.K.N.Ravi

SAPTHAGIRI COLLEGE OF ENGINEERING is releasing its "EEE MAGAZINE". I would like to express my sincere appreciation to Faculty and Editor for their efforts and dedication into a modern and accessible mode of communication with the students' community. It is always a proud moment in the life of the SCE that its departments celebrate such occasions. Apart from providing the quality education, we craving to provide our students a holistic learning experience for life. Academic excellence along with Co-curricular and extra co- curricular activities complete the process of education.



And it gives me great satisfaction that SCE is making progress in all its endeavors towards the overall development of the students. As I look

ahead, I can visualize that the college will grow in pursuit of higher standards of teaching, research, and may lead to shape my dreams. It will continue to serve a significant role in higher education and in the service of the country. My blessings and good wishes will always be with the EEE Department. May God give strength to see this department and college flourishing!

## FACULTY PARTICIPATION:

- Prof Dr G Raghvendra being a Chair person for International conference on a Smart Computing and Control of Systems (ICSCS) held during 17<sup>th</sup> -19<sup>th</sup> October 2019 at Sree Vidyanikethan Engineering College (Autonomous), Tirupathi-517102 Andhra Pradesh, India.
- Prof Dr G Raghvendra has published research paper on "Voltage and Frequency Based Optimal Load Shedding using Improved Self Adaptive Harmony Search Algorithm" and accepted by the board of 'Blue Eyes Intelligence Engineering and Sciences Publication' which has published in 'International Journal of Innovative Technology and Exploring. ISSN: 2278-3075, Volume-8 Issue-11, September 2019.
- Prof Dr G Raghvendra was recognised and appreciated for the review work made during 4<sup>th</sup> IEEE International Conference Electrical, Electronics, Communication, Computer Technologies Optimization techniques-(ICEECCOT). This event was Organized by GSSS Institute of Engineering and Technology for Women, Mysuru in association with IEEE Bangalore section on 13-12-2019 to 14-12-2019. Volume - 8, Issue-8, ISSN 2277-8616.
- Prof Rekha SN has Presented a paper on "SVM and RVM fault model for wind energy conversion system" in the international conference on "Sustainable Development"(KALASALINGAH GLOBAL CONFERENCE KGC-2019) held at Kalasalingam Academy of Research and Education (Deemed to be University), Krishnakoil, Tamil Nadu, India during December 18-12-2019 to 20-12-2019. Volume-8 Issue-452, ISSN: 2277-3878.

- Prof Rekha SN has Presented a paper on “Protection Model for Wind Energy Conversion System-A Neural Network Approach” in the international conference on “Sustainable Development”(KALASALINGAH GLOBAL CONFERENCE KGC- 2019)held at Kalasalingam Academy of Research and Education (Deemed to be University),Krishnakoil,Tamil Nadu,India During December 18-12-2019 to 20-12 2019.
- Prof Rekha SN has Presented a paper on “Fault Detection in Grid Connected Wind Energy Conversion System” in the international conference on “Sustainable Development”(KALASALINGAH GLOBAL CONFERENCE KGC-2019)held at Kalasalingam Academy of Research and Education (Deemed to be University),Krishnakoil,Tamil Nadu,India During December 18-12-2019 to 20-12 2019. Volume-8 Issue- 452, ISSN:2277-3878.
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- Prof Dr KN Ravi has published a Journal paper on “Transfer of Hydrophobicity of Polymeric Insulators for various pollution services”. in ‘International Journal of Recent Technology and Engineering’ January 2020,Volume-8 Issue-5ISSN: 2277-3878.

## **INDUSTRIAL VISIT:**

### **400/200KV NELAMANGALA RECEIVING STATION:**

- Department of Electrical and Electronics Engineering has arranged an Industrial visit for the students of 7<sup>th</sup>sem to 400/200kV Nelamangala Receiving station on 19/11/2019. Various equipment used in the transmission system where explained by the engineers of KPTCL in detail. Insulators used in transmission system where explained. All the 58 students of 7<sup>th</sup>sem ‘B’ section and 2 faculty attended the industrial visit. The students requested to arrange more such industrial visits in future.



Industrial visit 400/200kV Nelamangala Receiving station

## **VIJI POWER TRANSFORMERS:**

•Department of Electrical and Electronics arranged an Industrial visit to the students of 5 'B' to VIJI POWER TRANSFORMERS PVT.LTD on 26/11/2019 Mr.Harish explained the students about the process of transformer manufacturing and testing in detail by taking the students to all the sections of the manufacturing unit. The students got in-depth practical knowledge of transformer manufacturing process. All the 56 students of 5 'B' attended the industrial visit and gave positive feedback. The students requested to arrange more such industrial visits.



**All the students of 5'B'along with HOD and faculty**



**At VIJI POWER TRANSFORMERS PVT.LTD**

## TECHNICAL TALK:

### “INTRODUCTION OF MACHINE LEARNING”

▪Department of Electrical and Electronics has arranged an technical talk on “Electric Vehicles” on 5/10/2019. to the students of 5<sup>th</sup> sem ‘A&B’ sections Sumit N Alumni of EEE Dept. The session was very interactive, where he explained the outcome and necessity about Machine Learning and its importance towards the upcoming generations.. Development of research activities in Machine learning was also explained.



Principle addressing the faculty and students

Mr. Sumit delivering the talk

### “FUNDAMENTALS AND TESTING OF INSULATOR AND LIGHTNING ARRESTOR”

▪Department of Electrical and Electronics had arranged an technical talk on “fundamentals and testing of insulator and lightning arrestor” to the students of 5<sup>th</sup> sem ‘A&B’ sections. Dr. U R Sesheagiri Rao Additional Director, CPRI, Bangalore as delivered the expert talk. The session was very interactive, where he explained the different tests carried out on insulator and also explained about lightning arrestors. Development of research activities in High Voltage Engineering was also was also explained.



Principle addressing the faculty and students

## ELECTRIC VEHICLES

▪Department of Electrical and Electronics has arranged an technical talk on “Electric Vehicles” to the students of 5<sup>th</sup> sem ‘A&B’ sections. Dr.Sanjeev K Nayak, Specialist and Project Manager, L&T, Bangalore as delivered the expert talk. The session was very interactive, where he explained the necessity about electric vehicles and its importance towards the upcoming generations. Different parts used in the manufacturing of electric vehicles where thoroughly explained. Development of research activities in Electric vehicles was also explained.



Principle addressing the faculty and students prior to technical talk



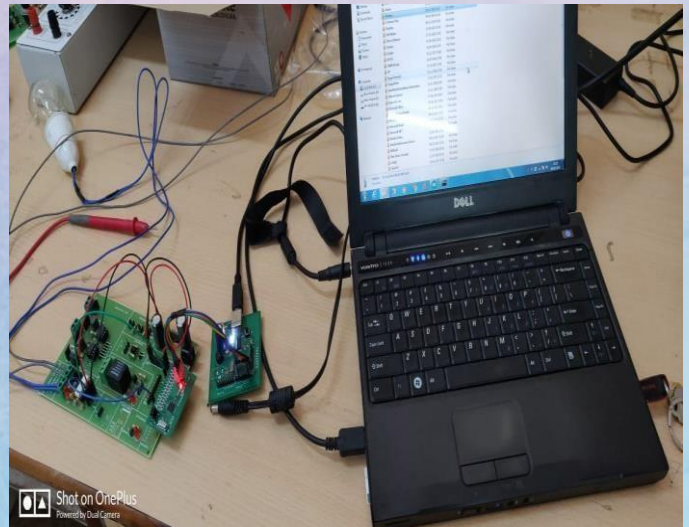
Dr.Sanjeev Nayak ,Project manager L&T,delivering the talk

## HANDS ON TRAINING “EMBEDDED SYSTEMS”

▪Department of Electrical and Electronics had arranged an hands on session on “Embedded systems and Power Electronics” to the students of 7<sup>th</sup> sem ‘A&B’ sections. Mr.Rakshit, Proprietor, M/s Ti2 technology, Bengaluru and Alumni of Saphthagiri college of Engineering, Gave a thorough training to the students on embedded systems and power electronics .This will help the students to carry out projects using Embedded Systems and Power Electronics.



Students during hands onsession



Equipments used for training

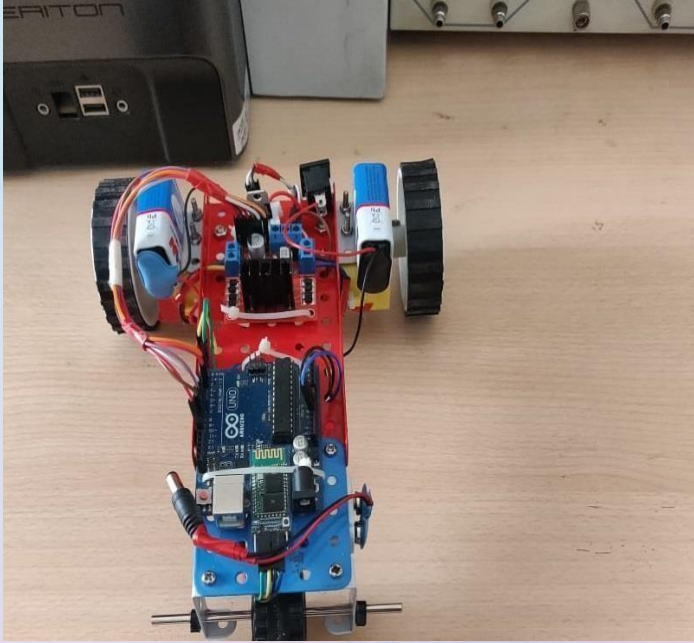
# VIDYUTH SPOORTHY

Students of 3<sup>rd</sup> and 5<sup>th</sup> sem students have carried out mini project as co-curriculum activity. Total no of projects by 3<sup>rd</sup> sem students are 24 and total no of projects by 5<sup>th</sup> sem students are 25.

The following are the projects which have won the prizes

- 1.Ultra Sonic Radar
- 2.Smart Home Automation using NodeMCU
- 3.Voltage Detector
- 4Automatic Street Lights

The Mini projects were exhibited on 15-11-2019. Mr Sanjay Nayak Project Manager Land T was the judge for evaluating the mini project.



Mini Projects



Judges at mini Projects

## SPORTS



Trophy at Sports Day

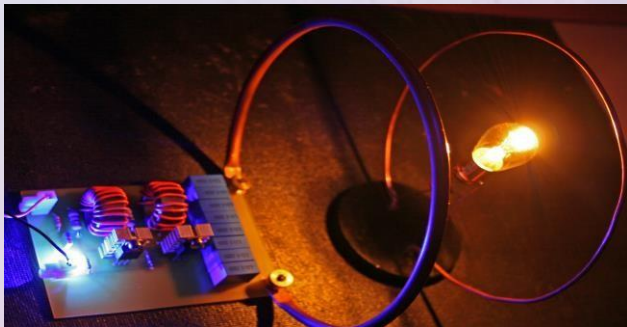
# Students' Placement:

Name Of Student Placed	Enrollment Number	Name Of The Employer	Appointment Letter Reference No. With Date.
KAVYASHREE R	1SG16EE043	SEESCON	11/10/2019
SOWMYA S	1SG16EE093	SEESCON	11/10/2019
SRUSHTI K	1SG16EE097	SEESCON	11/10/2019
KAVYA B P	1SG16EE042	SEESCON	11/10/2019
NEHA TOMAR	1SG16EE058	SEESCON	11/10/2019
ARPITHA P	1SG16EE013	SEESCON	11/10/2019
MOUNA M	1SG16EE055	SEESCON	11/10/2019
SWATHI B	1SG16EE099	SEESCON	11/10/2019
NIROSHA H V	1SG16EE063	SEESCON	11/10/2019
VIKHYAT DESAI	1SG16EE105	EXTRA MARKS	13/08/2019
PUNEETH N	1SG16EE072	EXTRA MARKS	13/08/2019
NIKHIL TOMAR	1SG16EE060	EXTRA MARKS	13/08/2019
AMITH SURAJ	1SG16EE008	GODREJ	15/11/2019
MADHUKAR K	1SG16EE049	INFOSYS	23/10/2019
HEMA S	1SG16EE036	Q SPIDERS	19/01/2020

# STUDENTS' ARTICLE:

## WIRELESS POWER TRANSMISSION

With the advent of the rapid pace of development of technology, Now a days there is a Rapid development of autonomous electronics like laptops, cell-phones, house-hold robots and all the above devices typically rely on chemical energy storage (Battery) as they are becoming daily needs to present generation, Wireless energy transfer would be useful for many applications as above. Now-a-days there is a rapid increase of electronic goods like cell phones, laptops, I-pods etc., which rely on the chemical storage of energy by the battery which need to be recharged frequently .As these are becoming daily needs to the present generation wireless energy transfer would be useful for many application. Currently, wired electricity powers nearly everything. It travels through wires in the form of Alternating Current, and powers most of our devices in the form of Direct Current. In our present electricity generation system we waste more than half of its resources. Especially the transmission and distribution losses are the main concern of the present power technology. In larger cities dynamic charging offers an even greater impact utilizing existing infrastructures as vehicles travel along the busy freeways wireless charging can also occur while the vehicle is in motion.



Wireless power transmission is the transmission of electrical energy from a power source to an electrical load without man-made conductors. "Wireless Power Transmission" is a collective term that refers, transmitting power by means of Time-Varying Electromagnetic fields. Wireless transmission is useful in cases where interconnecting wires are inconvenient or impossible. Wireless transmission is useful to power electrical devices in cases where interconnecting wires are inconvenient or hazardous. In wireless power transfer, a transmitter device connected to a power source transmits power by electromagnetic fields across an intervening space to one or more receiver devices, where it is converted back to electric power and utilized. The basic concept behind this is Magnetic Resonance.

Name Of the Students: Ashfque Ahmed  
USN No: 1SG16EE014  
EEE Dept.

## Universal Daemonization

The Internet of Things is a term that is gaining momentum in everyday use. The basic concept is that there are many types of objects that we are familiar with, e.g., cars, scales, TVs, ovens, refrigerators, etc., that have always been, well...just things. But with the Internet of Things (IoT), objects can be connected with each other to get the desired output with least human intervention. The idea is simple: Everything has a daemon associated with it that does a few things:

- Sensors (video, audio, temperature, pressure etc.)
- A Broadcast Daemon (attributes such as object type, owner, capabilities, color, size, weight, current location, input types accepted etc.)
- An Input Daemon (receives requests to perform actions, e.g., turn on, turn off, cross the street, jump up and down, reformat, sound an alarm, etc.)
- An Output Daemon (enables you to automatically send stimuli to other objects, such as texts, noises, flashes, e-mails, whatever).
- Smart Home:

The smart home is likely the most popular IoT application at the moment because it is the one that is most affordable and readily available to consumers. From the Amazon Echo to the Nest Thermostat, there are hundreds of products on the market that users can control with their voices to make their lives more connected than ever.

### •Wearable's:

Watches are no longer just for telling time. The Apple Watch and other smartwatches on the market have turned our wrists into smartphone holsters by enabling text messaging, phone calls, and more. And devices such as Fitbit and Jawbone have helped revolutionize the fitness world by giving people more data about their workouts.

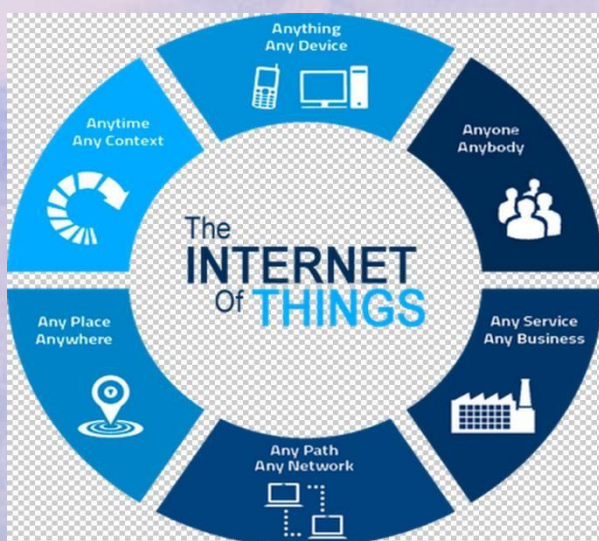


Figure 1: Overview

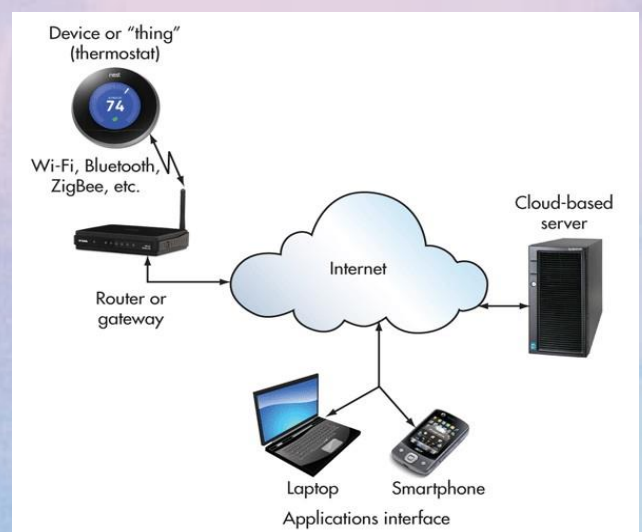


Figure 2: IOT

## Students' Photography:



Cheluvarama S  
III – Sem A-Sec



Thilak B T  
V- Sem B-Sec