

CURRENT News

Power is knowledge...Knowledge is power.

Vision

“To make the Electrical and Electronics Engineers from SCE to leave their footprints as the best engineers globally and to be the leaders in their chosen field of work”

Mission

“To impart knowledge to the students of Electrical and Electronics Engineering with abilities to excel in their profession and contribute to the growth of the nation and service to society”

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Editorial Team

Associate Professors:
NAGARAJ H P
REKHA S N

Assistant Professors:
A. DHAMODHARAN
MANASWI K J
MAHAVISHNU K B P

Students:
PRAVEEN J
SHUBHA S
CHIDANANDA C
ARPTTHA P

MESSAGE

Chairman: Sri G. Dayanand

The "CURRENT NEWS" newsletter of the department EEE 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 monthly newsletter "CURRENT NEWS" 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 Desk

It is indeed very happy to bring out newsletter "CURRENT NEWS" by the department of EEE. It is a platform provided by the department of EEE for their students and faculty members where they can share the knowledge, experience and talents in terms of written articles and I would like to compliment and congratulate the department of EEE and its editorial team for the contribution in bringing out the newsletter.



Administrative Officer's Desk

It gives me immense pleasure to note that EEE Department bringing out Newsletter for the academic year 2018-19. I am sure this newsletter provides an opportunity to the student's and the faculty of the department to project their talents through articles, reports of the various academic and extracurricular programmes. I congratulate the editorial committee of the newsletter for their efforts.

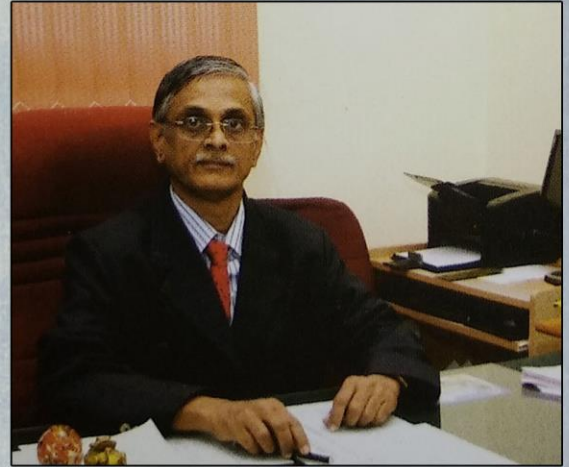
MESSAGE

HOD's Desk

At the outset let us thank the Management, Principal and Administrative officer for giving us permission to bring out the departmental news letter "CURRENT NEWS". We hereby convey our heartfelt thanks to them.

In this CURRENT NEWS it is intended to showcase the Technical talents of the students and faculty of EEE department.

This will contain Technical article, painting, reports of the activities and other relevant articles.



It is the intent of the department to make it as a news letter CURRENT NEWS to keep in touch with the departmental activities, achievements of faculty and students and to keep abreast with outer world electrically. This is an opportunity for the students and faculty to involve themselves pertaining to their field of study or profession so as to gather the articles. I am pretty sure that reading of this news letter would be a pleasant one as it would serve as a verdant landscape of scientific, technical and article outpourings that support student and faculty for widening their research and knowledge for their expansion.

Editorial Team



ACTIVITIES

WORKSHOP



The department of EEE has conducted a workshop on ARDUINO – AUTOMATION for the benefits of students on 9th September 2018. The trainers for the workshop Mr.Sandhesh an Mr.Sonusagar are from Hextri Electronlabs pvt. Ltd, Bengaluru. It's a hands – on training on Arduino processor, conducted at Power system simulation laboratory of EEE department. 95 students from final year were actively participated on the work shop and got the knowledge

INDUSTRIAL VISIT

The department of EEE has arranged a three days Industrial visit for 7th semester students from 8th to 10th November, 2018. 75 students went to the visit the generating station along with faculty Prof.Nagraj H P, Prof.Yousuf Madar, and Prof.BharathB N. During the visit, they visited SUPA Power Plant Ganeshgudi, Joida Taluk, Uttara Kannada district and VARAHI Under ground Power plant, Hosangadi.



ACHIEVEMENTS

ACADEMIC TOPPERS



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

SL NO	STUDENT NAME	USN	PERCENTAGE
2 nd semester			
1	SWATHI C	1SG17EE079	92.71(9.67)
2	PREKSHA S	1SG17EE058	89.4(9.33)
4 th semester			
1	PAVITHRA R	1SG16EE066	82.1(9.23)
2	KAVYASHREE R	1SG16EE043	81.4(9.15)
6 th semester			
1	MANOHARA.S	1SG15EE049	86.75(9)
2	SHANU	1SG15EE082	86.0(9.11)
8 th semester			
1	RANJITHA K	1SG14EE064	82.5
2	ISHANI SHRAMA	1SG14EE031	81.3

INVITED TALK

Dr.K.N.Ravi, Prof., & Head of the department, Department of EEE, had been invited for a technical talk on 1st November, 2018 at National Power Training Institute (NTPI), Bengaluru. And he delivered a talk on

- I. Measurement of HVAC, HVDC and Impulse Voltage
- II. Pollution Performance of Insulator Under HVAC and HVDC

ARTICLES

Revolution in Insulator material in power Transmission

-Ashwini A V, Asst Professor, EEE Department

Generally, insulators produced are of porcelain and glass, which are widely used in overhead lines and in electrical equipment. These are generally termed as ceramic insulator. These ceramic insulators have longer life and can be used either for tensile force or compressive force. The usage of this ceramic insulators is more than 110 years, their life is very high.

Though these insulators have longer life, there are many disadvantages in the present scenario. The main disadvantage is their weight and their performance in certain ambient conditions. Additional problem is that they are non-sustainable to vandalism. Because of these disadvantages there was an urge by the researchers to get an alternate material for insulation. Because of this fact, alternate material is emerged during sixties, which is of Polymeric. One of the other reason for new material is the poor performance of porcelain and Glass insulator under polluted conditions

The main advantages of:-

Polymeric insulator is having Low weight to Height ratio.

Hydrophobic in nature

Easy for Maintenance

Can combat vandalism

With all the above advantages, the main disadvantage is the aging performance is very poor.

Polymer Insulator

From 10kV

To 765kV



Other main advantage of Polymeric material is that it paid the way in the development of Ultra High voltage Transmission and sub-station. It also made the life of Arrester housing easier by the way that it incorporates the safety to equipment and personal during the failure of arresters.



Failed Porcelain Housing



Failed Polymeric Housing

With the usage of Polymeric material it is now possible to look for UHV equipment. Transformer bushing, Circuit breaker shells, wall bushing, housings of CT PTs, etc can be made with Polymeric insulator.

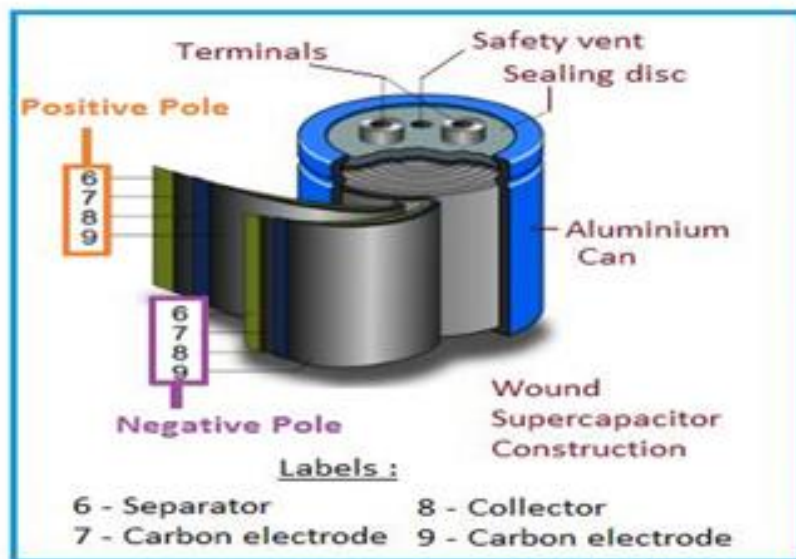
Thus the future of Insulator and housing belongs to Polymeric material

SUPER CAPACITORS

-Shubha.S (6th sem B)

The current trend of super capacitors is to replace rechargeable batteries, offering a new method of storage for energy based on nanotechnology. Unlike batteries, super capacitors can recharge within seconds and withstand virtually unlimited charge cycles. Super capacitors have a higher energy density than conventional capacitors, but a lower energy density than the standard batteries used in electronic products such as IOT devices.

Super capacitors (sometimes referred to as SCs) are electrochemical devices capable of storing and supplying high-power electricity quickly and for a large number of cycles (up to millions of cycles) without showing performance decay. The simplest super capacitor consists mainly of two electrodes and an electrolyte interposed to that. The electrical charges are arranged in the electrode/electrolyte interface, and there are no chemical and reduction process. Super capacitor is a double-layer capacitor with very high capacity but with low voltage limits. Super capacitors, compared to capacitors, have a larger area for storing more charge.



When a voltage is applied to a super capacitor, two separate charge layers are produced on the surface with a separation distance that is smaller than those of conventional capacitors. This is why super capacitors are often referred to as double-layer electrical capacitors or EDLCs. Batteries gradually lose the ability to be recharged, whereas capacitors offer virtually endless charge and discharge cycles.

A super capacitor uses a different mechanism of energy storage. In super capacitors, energy is stored electro statically on the surface of the material, and chemical reactions are not involved. The primary deficiency of super capacitors is their low energy density compared to batteries. Also, the cost of super capacitor materials (such as graphene) often exceeds that of materials used in the manufacture of batteries.



PLACEMENTS

During the period of July 2018 to December 2018, number of companies visited Sapthagiri College of Engineering for recruitment process. The following students of EEE department got selected in the listed company.

S.No	Company Name	Students Name
1	Cinif Technologies Ltd	Ganesh Rao S
2		Chandan Kumar
3		Chandan Gowda P
4		Prajwal S R
5		Abhishek R
6		Vikas Kumar Singh
7		Navya S R
8		Manish Naicker D
9	SLK Software Pvt Ltd	Harshitha V
10		Lavenya K
11		Charitha M C
12	Go Speedy Go	Mohammed Jaffer Saadir
13		Srikant T Kadgi
14		Shrjana R Kumar
15		Sandesh V
16		Raveesh V Shet
17		C.S.Mohana
18		Anusha B
19		Manish Manjunath
20		Pawankumar D
21		Darshan M E
22		Chandana B
23		Athiya Mohammadi
24		Shanu
25		Nethra R
26		Keerthana R
27		Annapurna Singh
28		Arpithasharma

ARTWORK



-Prakruthi.Y.S.Jain (6th sem B)