SAPTHAGIRI COLLEGE OF ENGINEERING

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

(IAO9001-2015 and ISO14001-2015 certified institute)

August-2020

Vol-IV Issue-2

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.

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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:

PEO 1: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 eduation 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 Coordinator:

Parveen J

Chidanand.C

Shubha S

Arpitha P

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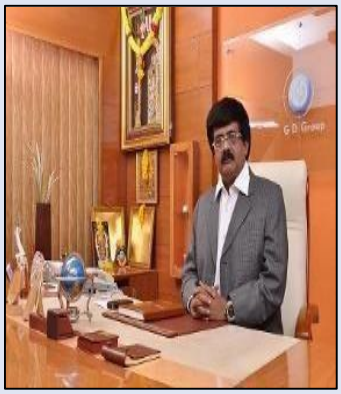
Chairman: Sri G. Dayanand



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.

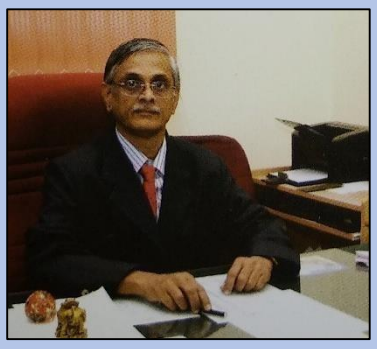
Executive Director: Sri G. D Manoj

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.

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.

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:

1.Prof.Rekha SN- Associate professor from Dept. of EEE attended Faculty development program on "SMART GRID TECHNOLOGY" from 17/07/2020 TO 20/07/2020 at KALASALINGAM ACADEMY OF RESEARCH AND EDUCATION, Krishnankoil, Tamil Nadu.

2. Prof.Dr Raghavendra G- Associate professor from Dept. of EEE attended Faculty development program on "POWER ELECTRONIC CONVERTERS FOR RENEWABLE ENERGY SOURCES" from 27/05/2020 TO 02/06/2020 at KALASALINGAM ACADEMY OF RESEARCH AND EDUCATION, Krishnankoil, Tamil Nadu.

3.Prof.Jhansi K- Assistant professor from Dept. of EEE attended Faculty development program on "POWER ELECTRONIC CONVERTERS FOR RENEWABLE ENERGY SOURCES" from 27/05/2020 TO 02/06/2020 at KALASALINGAM ACADEMY OF RESEARCH AND EDUCATION, Krishnankoil, Tamil Nadu.

4.Prof.Ramya M- Assistant professor from Dept. of EEE attended Faculty development program on "POWER ELECTRONIC CONVERTERS FOR RENEWABLE ENERGY SOURCES" from 27/05/2020 TO 02/06/2020 at KALASALINGAM ACADEMY OF RESEARCH AND EDUCATION, Krishnankoil, Tamil Nadu.

5. Prof. Divya NS- Assistant professor from Dept. of EEE attended Faculty development program on "POWER ELECTRONIC CONVERTERS FOR RENEWABLE ENERGY SOURCES" from 27/05/2020 TO 02/06/2020 at KALASALINGAM ACADEMY OF RESEARCH AND EDUCATION, Krishnankoil, Tamil Nadu

6.Prof. Harshitha MR- Assistant professor from Dept. of EEE attended Faculty development program on "POWER ELECTRONIC CONVERTERS FOR RENEWABLE ENERGY SOURCES" from 27/05/2020 TO 02/06/2020 at KALASALINGAM ACADEMY OF RESEARCH AND EDUCATION, Krishnankoil, Tamil Nadu.

7.Prof. Sumangala S Jambli- Assistant professor from Dept. of EEE attended Faculty development program on "POWER ELECTRONIC CONVERTERS FOR RENEWABLE ENERGY SOURCES" from 27/05/2020 TO 02/06/2020 at KALASALINGAM ACADEMY OF RESEARCH AND EDUCATION, Krishnankoil, and Tamil Nadu.

8.Prof .Bharath BN- Assistant professor from Dept. of EEE attended Faculty development program on "POWER ELECTRONIC CONVERTERS FOR RENEWABLE ENERGY SOURCES" from 27/05/2020 TO 02/06/2020 at KALASALINGAM ACADEMY OF RESEARCH AND EDUCATION, Krishnankoil, Tamil Nadu.

9.Prof. Dr Raghavendra G- Associate professor from Dept. of EEE attended Faculty development program on "NEXT GENERATION INTELLIGENT POWER GRID TECHNOLOGIES – A FUTURE" from 28/07/2020 TO 01/08/2020 at DSATM in association with IEEE PES, Bangalore Chapter.

10.Prof. Dr Raghavendra G- Associate professor from Dept. of EEE attended Faculty development program on "ADVANCES IN POWER ELECTRONIC APPLICATIONS" from 08/08/2020 TO 08/08/2020 at BMS INSTITUTE OF TECHNOLOGY AND MANAGEMENT, Bangalore.

11.Prof. Dr Raghavendra G- Associate professor from Dept. of EEE attended Faculty development program on "ELECTRIC VEHICLE" from 11/05/2020 TO 16/05/2020 at JHULELAL INSTITUTE OF TECHNOLOGY, Nagpur.

12.Prof. Dr Raghavendra G- Associate professor from Dept. of EEE attended Faculty development program on "EMBEDDING RESEARCH & DEVELOPMENT IN ACADEMIC ENVIRONMENT" from 01/06/2020 TO 03/06/2020 at SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bangalore.

13.Prof. Swetha G- Assistant professor from Dept. of EEE attended Faculty development program on "EMBEDDING RESEARCH & DEVELOPMENT IN ACADEMIC ENVIRONMENT" from 01/06/2020 TO 03/06/2020 at SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bangalore.

14.Prof. Ashwini AV- Assistant professor from Dept. of EEE attended Faculty development program on "EMBEDDING RESEARCH & DEVELOPMENT IN ACADEMIC ENVIRONMENT" from 01/06/2020 TO 03/06/2020 at SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bangalore.

15.Prof. Preetha NP- Assistant professor from Dept. of EEE attended Faculty development program on "EMBEDDING RESEARCH & DEVELOPMENT IN ACADEMIC ENVIRONMENT" from 01/06/2020 TO 03/06/2020 at SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bangalore.

16.Prof. Dhamodaran A- Assistant professor from Dept. of EEE attended Faculty development program on "SIMULATION TOOLS FOR POWER CONVERTERS AND APPLICATIONS" from 27/07/2020 TO 31/07/2020 at BMS College of Engineering, Bengaluru.

17.Prof. Jhansi K- Assistant professor from Dept. of EEE attended Faculty development program on " RECENT TRENDS IN POWER SYSTEM SECURITY" from 09/06/2020 TO 11/06/2020 at Smt KAMALA & Sri Venkappa M Agandi college of Engineering-Lakeshwar.

18.Prof. Jhansi K- Assistant professor from Dept. of EEE attended Faculty development program on “SCOPE OF INDUSTRY INSTITUTE INTERACTION IN ELECTRICAL ENGINEERING EDUCATION" from 25/06/2020 TO 29/06/2020 at Channabasaveshwara Institute of Technology–Gubbi.

19.Prof. Ramya M - Assistant professor from Dept. of EEE attended Faculty development program on “SCOPE OF INDUSTRY INSTITUTE INTERACTION IN ELECTRICAL ENGINEERING EDUCATION" from 25/06/2020 TO 29/06/2020 at Channabasaveshwara Institute of Technology–Gubbi.

20.Prof. Divya NS- Assistant professor from Dept. of EEE attended Faculty development program on “REAL CHALLENGES & DEVELOPMENT WITH INTEGRATED ENERGY SOURCES FOR ELECTRIC VEHICLES IN MODERN DAYS" from 01/07/2020 TO 03/07/2020 at SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bangalore.

21.Prof. Preetha NP- Assistant professor from Dept. of EEE attended Faculty development program on “REAL CHALLENGES & DEVELOPMENT WITH INTEGRATED ENERGY SOURCES FOR ELECTRIC VEHICLES IN MODERN DAYS" from 01/07/2020 TO 03/07/2020 at SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY, Bangalore.

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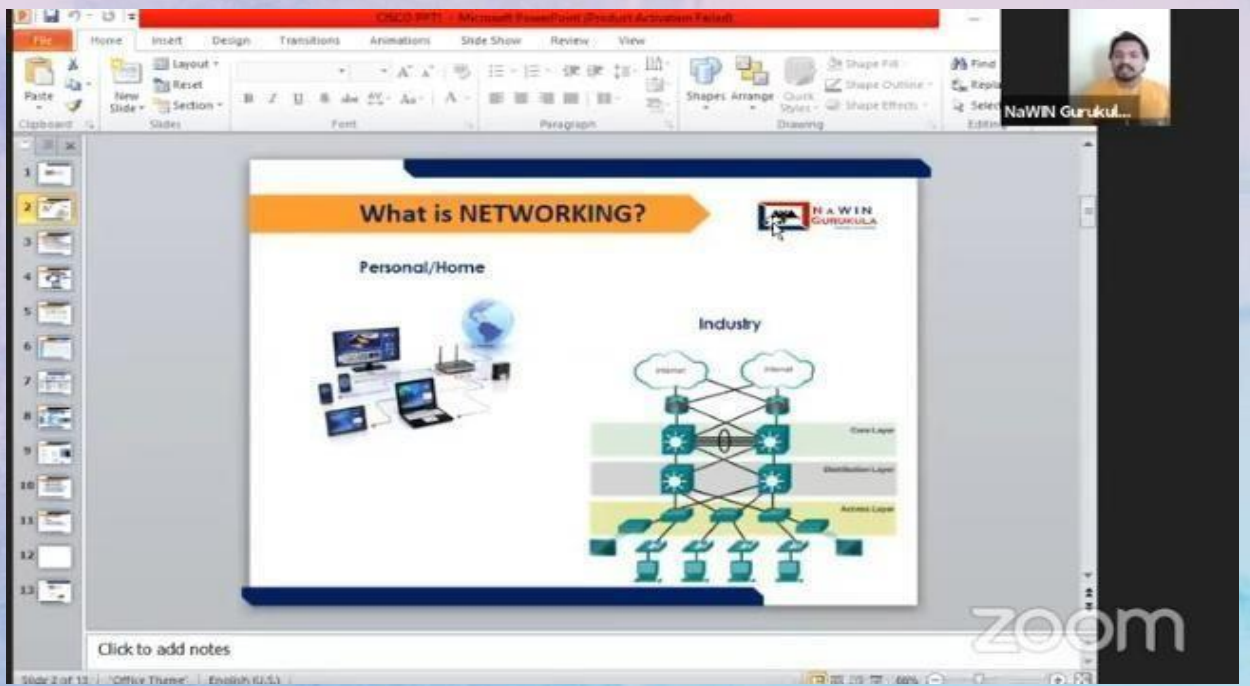
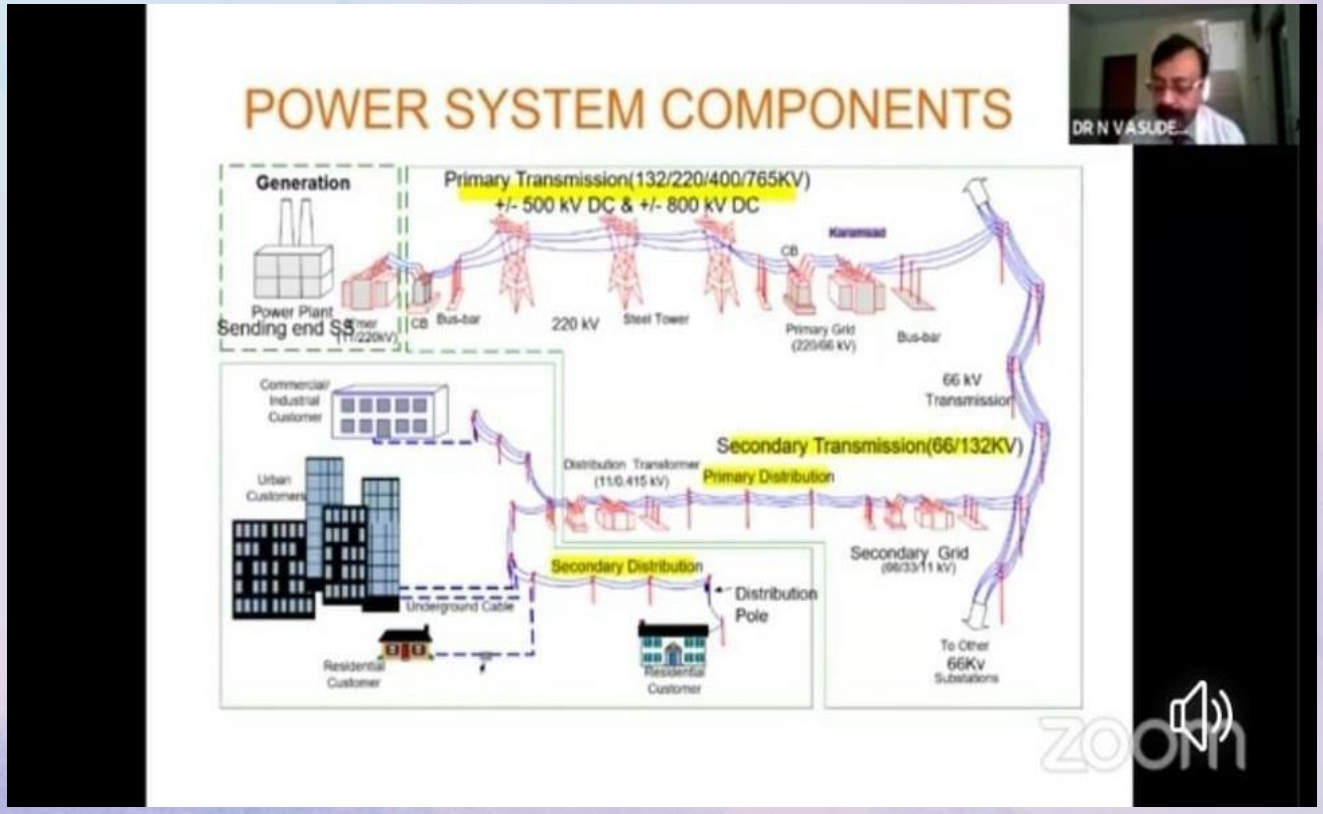
Webinar ON "**Roles & Opportunties for Engineering Graduates in Network Engineering**"

Department of Electrical and Electronics had arranged an National Webinar on"Roles & Opportunties for Engineering Graduates in Network Engineering" on 15/06/2020, it was a open talk for students and other college participants. Mr. Naveen Chandra C, Mentor-CISCO Network Specialization, No-Win Gurukula has delivered the expert talk. The session was very interactive, he explained the opportunties in the current market after engineering, job opportunties, how to choose the right job. Session was very use full to the students.



Webinar on "**Recent trends in Research on Electrical Power Transmission**":

Department of Electrical and Electronics has arranged an National Webinar on"Recent trends in Research on Electrical Power Transmission"on 06/06/2020, it was a open talk for faculties, students and other college participants. Dr.Vasudev N, Additional Director(Rtd.), CPRI, Bangalore has delivered the expert talk. The session was very interactive, where he explained the recent trends in power system and electrical power transmission , Research areas and thrust areas in power system where discussed in detail . Session was very use full to the young researchers and students.



Invited Lecture

1.Dr. K.N Ravi, Professor. & HOD from dept. of EEE has delivered a Lecture on "Contemporary Scenerio in power systems" from 25/7/2020-30/7/2020 at ATME COLLEGE OF ENGINEERING Mysore.

2.Dr. K.N Ravi, Professor. & HOD from dept. of EEE has delivered a Guest Lecture on "High Voltage Testing of Power system Equipment" on 5.02.2020 at National Power Training Institute Bangalore.

3.Dr. K.N Ravi, Professor. & HOD from dept. of EEE has delivered a Guest Lecture on “Insulation Coordination and Recent trends in High Voltage Engineering” on 31.07.2020 at The Oxford College of Engineering, Bangalore.

4.Dr. K.N Ravi, Professor. & HOD from dept. of EEE has delivered a Guest Lecture on “Experimental Investigation of Tests on HVAC and HVDC insulators based on IEC standards” on 31/5/2020 at IEEE Technical delivery.

5.Prof. Rekha SN- Associate professor from Dept. of EEE has delivered an online Guest lecturer in the subject “ELECTRICAL MACHINE DESIGN” at CHANNABASAVESHWARA INSTITUTE OF TECHNOLOGY, Gubbi.

6.Prof. Dhamodaran A- Assistant professor from Dept. of EEE has delivered an online Guest lecturer in the subject "Power System Operation and Control" “on 08/04/2020 at Channabasaveshwar Institute of Technology, Gubbi

7.Prof. Dhamodaran A- Assistant professor from Dept. of EEE has delivered an online Guest lecturer in the subject "Control System" “on 15/04/2020 at Channabasaveshwar Institute of Technology, Gubbi

JOURNALS PUBLISHED BY THE FACULTY:

1.Prof. Ravi KN- Professor and HOD from Dept. of EEE has presented a journal paper titled “Design of rotating wheel for dip test of polymeric insulators” in International Research Journal of Engineering and Technology (IRJET) published. On June 2020 Volume: 07 Issue: 06 | June 2020 e-ISSN: 2395-0056

2.Prof. Ramya M- Assistant Professor from Dept. of EEE has presented a journal paper titled “Design of rotating wheel for dip test of polymeric insulators” in International Research Journal of Engineering and Technology (IRJET) published. On June 2020 Volume: 07 Issue: 06 | June 2020 e-ISSN: 2395-0056

3..Prof. Divya NS- Assistant Professor from Dept. of EEE has presented a journal paper titled “Design of rotating wheel for dip test of polymeric insulators” in International Research Journal of Engineering and Technology (IRJET) published. On June 2020 Volume: 07 Issue: 06 | June 2020 e-ISSN: 2395-0056

4.Prof. Ashwini AV- Assistant Professor from Dept. of EEE has presented a journal paper titled "Design of rotating wheel for dip test of polymeric insulators" in International Research Journal of Engineering and Technology (IRJET) published. On June 2020 Volume: 07 Issue: 06 | June 2020 e-ISSN: 2395-0056

5.Prof. Jhansi K- Assistant Professor from Dept. of EEE has presented a journal paper titled "Energy Management System without using Battery Bank"in International Journal of Advance Science and Technology " on 3RD JULY2020. Vol. 29, No. 10S, (2020), pp.4348-4354. ISSN: 2005-4238.

6.Prof. Ramya M- Assistant Professor from Dept. of EEE has presented a journal paper titled "Energy Management System without using Battery Bank"in International Journal of Advance Science and Technology " on 3RD JULY2020. Vol. 29, No. 10S, (2020), pp.4348-4354. ISSN: 2005-4238.

7.Prof. Divya NS- Assistant Professor from Dept. of EEE has presented a journal paper titled "Energy Management System without using Battery Bank"in International Journal of Advance Science and Technology " on 3RD JULY2020. Vol. 29, No. 10S, (2020), pp.4348-4354. ISSN: 2005-4238.

8.Prof. Ashwini AV- Assistant Professor from Dept. of EEE has presented a journal paper titled "Energy Management System without using Battery Bank"in International Journal of Advance Science and Technology" on 3RD JULY2020. Vol. 29, No. 10S, (2020), pp.4348-4354. ISSN: 2005-4238.

9.Prof.Rekha S N- Associate Professor from Dept. of EEE has presented a journal paper titled "Energy Management System without using Battery Bank"in International Journal of Advance Science and Technology " on 3RD JULY2020. Vol. 29, No. 10S, (2020), pp.4348-4354. ISSN: 2005-4238.

10.Prof. Swetha G- Assistant professor from Dept. of EEE presented the paper "DESIGN AND DEVELOPMENT OF ON BOARD AND OFF BOARD CHARGER" NCPOC-2020.

11.Prof.Raghavendra G- Associate Professor from Dept. of EEE has presented a journal paper titled "Energy Management System without using Battery Bank"in International Journal of Advance Science and Technology" on 3RD JULY2020. Vol. 29, No. 10S, (2020), pp.4348-4354. ISSN: 2005-4238.

STUDENTS' PLACED

Name of student placed	Enrollment number	Name of the employer	Appointment letter ref. No. with date.
ANANYA V	1SG16EE009	VEE TECHNOLOGIES	11/03/2020

JEEVAN KUMAR R	**1SG16EE037**	**MIND TREE**	**24/03/2020**
YESHAS SWAMY C V	1SG16EE110	VEE TECHNOLOGIES	11/03/2020

STUDENTS' PARTICIPATION:

USN	NAME	EVENTS	COLLEGE NAME	YEAR
1SG16EE014	ASHFAQUE AHMED	QUIZ ON ELECTRICAL SAFETY AND PROTECTION	SVCE, BANGALORE	2019-20
1SG16EE014	ASHFAQUE AHMED	QUIZ ON ELEKTRIC HOUSE	SKIT, BANGALORE	2019-20
1SG16EE014	ASHFAQUE AHMED	BRAIN CHARGER QUIZ 2020	SKIT, BANGALORE	2019-20`
1SG16EE014	ASHFAQUE AHMED	SDP on BASIC TECHNOLOGY FOR A CAREER IN ELECTRIC VEHICLES	KIT'S college of Engineering , KOHLAPUR	2019-20

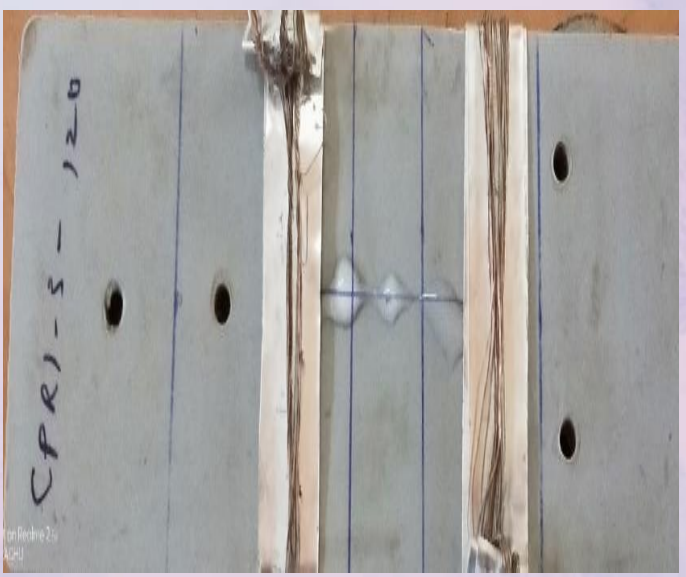
FACULTY ARTICLE:

EXPERIMENTAL STUDIES ON SURFACE PROPERTIES OF POLYMERIC INSULATOR:

The surface characteristic of polymer insulator was studied by placing different number of water droplets on the polymer insulator. Sodium chloride solution of particular Severity was used for the tests. This is due to the fact that the water droplets on the surface may combine with pollutants and may become conductive. The behaviour of decreasing flashover values of magnificent display of organized intelligence, mastered deception, and those innovative strategies in effect.Two days later, his official care-taker nurse, Q, poured out the juice into his tumbler.

the polymeric material is similar to the one observed in service and laboratory. When sequence of flashovers was obtained in the laboratory, the flashover values of polymeric insulator decrease one after other. The same behaviour is observed on the polymeric material also. This study will be helpful in understanding the arcing property of the surface of polymeric material. Generally, the droplets under the influence of the field, start oscillating, then they join with each other and then with the electrodes creating a water path bridging the gap spacing. This phenomenon can be seen from the following figures. Sometimes the water starts evaporate which results in dry zones and hence micro-discharges occur which further results in bridging between the electrodes. First flashover values with three, water conditions. Whereas the first flashover values in 9 droplet arrangement have decreased considerably. This was due to the fact that reduction in surface length without water droplets.

BEFORE FLASHOVER



AT FLASHOVER

by

Prof.Ashwini AV,

Dept. of EEE

STUDENTS ARTICLE:

1. The Knight and the Nurse(Non Technicle)

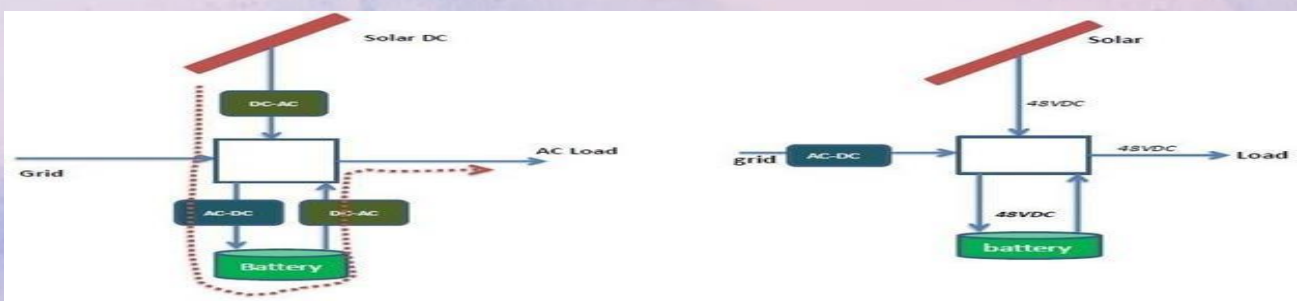
The Knight had been severely wounded, and was assigned this particular medical unit for his recovery. She observed the spasmodic movements of his larynx, as the juice trickled down his throat easily. He laid down the tumbler, feebly sighing for a while, contemplating the worst realities of mankind's life and sufferings; war and death; distrust and betrayal; loss and misery. He, who had slain thousands of soldiers, cut off countless heads and had witnessed barbaric displays of vengeance, himself being part of such acts, recalled his past events staring hard at the distant wall, his face marked by the warrior-like convergence of brows, as if she knew the deepest worries of Hteejihba, held his hands in hers, and in a tone of reassurance, said, "I understand. I precisely know what you are going through. It's time for you to heel and relax."

He shifted his gaze, looked right into her eyes, and forced a smile. was an ideal aggregation of all enchanting qualities, of all forms of glamour and grace, a manifestation of female charm. Bestowed with an unblemished complexion, the positioning of her cheekbones, those long eyelashes and neat red lips catalyzed her beauty to completion.Days passed, his wounds healed, and their interaction progressed. Q, made numerous attempts to enslave the knight, all of which were fruitless, totally insufficient to deter his rock-hard mind. He knew more than to submit himself to the enchantments of delusive fantasies. On one such occasion, his highly observant eyes noticed something critical. An amulet suspended by a chain, dangled innocently from her pocket, depicting a howling wolf distinctive against the background of a deceptive full moon.

Name of the Student:GOUTHAM S
USN No.1SG16EE001
Dept. Of EEE

DC Microgrid an aid to India's power Scenario(TECHNICLE)

In this rapid changing worldwhere blackouts are a sad fact of daily life, being connected to the grid is no guarantee of reliable electricity. In a study conducted in 2015 by CEEW, it was found that many cities and villages have fewer than 4 hours of electricity per day; nearly half of the households that reported having a grid connection nevertheless had effectively no electricity. Which paints a grim picture. Chief among the reasons they cited were poor reliability, quality, and affordability. In many parts of the country, even middle-income households still find themselves held hostage to frequent power cuts that can last anywhere from a few hours a day to most of the day. For those who can afford to often install diesel generators and u.p.s, it was an expensive and polluting option.



Taken together, the DC line from the main grid and the solar microgrid are enough to power five fans, eight LED lights, two small flat-screen TVs, several cellphone and tablet chargers, and a laptop. These are all DC-compatible devices, of course, and use much less power than do AC appliances. The fans use brushless DC motors; where an AC fan might consume 72 W, a DC fan with comparable airflow will use just 30 W.

Name – Ajay S Pai
Branch - EEE
Semester - 6th
Contact Number - 9480434359