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## **MESSAGE FROM THE HOD'S DESK**

Greetings all, Hearty welcome and best wishes to all the departments who receive this newsletter. It gives me great pleasure to present the second issue of "SPARKZ" for the even semester of academic year 2017-2018. I cheer the students to work hard and put in their best efforts towards their technical endeavors so that it may yield prolific results. I also extend my wishes to the final year students in doing their projects. I would like to thank all my colleagues for their diligent efforts to help the department progress at a very steady rate of notes. We as a team strive hard to take the department to height of success, glory and to achieve our vision.

**ALL THE BEST**

**Dr.E.Kaliappan**

**Professor &HOD/EEE**

## **VISION OF THE DEPARTMENT**

To produce graduates with foundation in Electrical and Electronics Engineering who can cater to the dynamic needs of the industry and to provide a diverse and stimulating environment for quality research.

## **MISSION OF THE DEPARTMENT**

- M1.** To align the teaching learning process and to provide basic foundation for the students to adapt to the changing industrial needs
- M2.** To enrich with the latest developments through seminars, guest lectures, workshop and paper presentations
- M3.** To awake young minds to acquire knowledge continuously and learn to apply it
- M4.** To attain multidisciplinary problem solving skills, social awareness and confidence required to excel in their chosen field
- M5.** To develop professional competency and technical expertise individually and through team effort thereby exhibit leadership in industry
- M6.** To create research oriented mindset and focus in fulfilling growing demands of society through mentoring and motivation

## **PROGRAM EDUCATIONAL OBJECTIVES (PEOS)**

1. Graduates will have fundamental and broad knowledge in Electrical Sciences relating to industrial applications and research to design, analyze and synthesize information from various sources and think differently to provide solutions to their discipline
2. Graduates will become entrepreneurs, employees of reputed organizations, pursue higher studies and research for developing advanced skills in Electrical and Electronics Engineering
3. Graduates will exhibit technical and intellectual competency and will be amenable for life-long learning
4. Graduates will demonstrate technical knowledge and ethical values for professional development to meet the societal needs
5. Graduates will be able to work in multi-disciplinary environment by providing solutions to real time problems.

## **STUDENT'S ACHIEVEMENTS**

The following students have attended workshop on Recent trends in renewable energy in Easwari Engineering college conducted by the Energy club of Easwari Engineering college on 4.1.2018.

SHIVANI T  
RAGAVI E  
PRIYANKA S  
PREETHI N  
PREETHA P  
POOJHA C  
SHRUTHI T  
SOWMIYA S  
SOWNDARYA K  
ARUNKUMAR A  
JAYASURYA I  
MOULIESHWARAN R  
ARUN KUMAR K  
KAVIN V B  
NISHANTH P  
SUDARSHAN M  
ROSHAN NAWAZ M  
SEETHARAMAN J R  
SATHIYENDRAN M  
RAGU B  
RAGHAV E  
SHARU PRIYA M  
SHANMUGA PRIYA V  
ROSHINI B V  
NIVEDHITHA M  
SUSHMITA M S  
THABASSUM ASHIFFA I  
JEYA PRIYA P  
LAVANYA R  
APARNA R  
JANANI N  
ASHWINI V

AISHWARYA SAI C N  
THENMUGILAN E  
ABINAYA R

Janani N of II A presented a paper in National level technical Symposium McADROIT conducted by mechanical department of Easwari Engineering college on 23.1.18 and won II Prize.

N.Neelabalan of III A attended a two day workshop on R and Python Programming for Machine learning and Big Data analytics conducted by IT department of Easwari Engineering collage on 4.1.2018 and 5.1.2018

Rahul.M and Ramakrishnan.G of IV B participated in the Design competition conducted by IMPERIAL SOCIETY OF INNOVATIVE ENGINEERS.

Final year project of Rahul,Sai Prasad,Renganathan and Pranav Sharma on the topic design and development of artificial wind tree for micro grid power generation was approved by TNSCST

## **GUEST LECTURE**

The department of EEE had arranged a guest lecture for III A by Mr.Nachiappan.M,Design Engineer,OHM Energy Management systems, Sriperumbudur SIPCOT on topic Reactive Power compensation and Voltage regulation in transmission system from 9.50am to 10.45am on 30.1.18.in their respective classroom.





## INDUSTRIAL VISITS

The Department of Electrical and Electronics Engineering arranged an industrial visit to 11KV substation in Sriperumbudur on 30.1.2018 for students of II B and on 31.1.2018 for students of II A.



## PLACEMENTS SUMMARY

S.NO	NAME OF THE COMPANY	NO OF STUDENTS PLACED
1	E-CON SYSTEMS	01
2	VURAM TECHNOLOGY	01
3	ATOS	05
4	TCS	39
5	AMAZON	01
6	JUST DIAL	01

<b>7</b>	THINK & LEARN	02
<b>8</b>	FULL CREATIVE	01
<b>9</b>	VALUED EPISTEMICS GRE EDGE	01
<b>10</b>	FACE	01
<b>TOTAL NO OF STUDENTS PLACED</b>		<b>53</b>

## RESEARCH ARTICLES

SL NO	RESEARCH ARTICLE DETAILS PUBLISHED IN 2017-18 IN IEEE FORMAT	SCI/SCOPUS/NON SCOPUS	IMPACT FACTOR	NAME OF THE STAFF
<b>1</b>	Design and Implementation of Photovoltaic Inverter system using Multi-cell Interleaved Fly-back Topology	NON SCOPUS	0.6	<b>Mr.P.Marishkumar</b>
<b>2</b>	Threshold Monitoring System for Improving Baysman's Performance	NON SCOPUS	0.6	<b>Mr.P.Marishkumar</b>
<b>3</b>	Hybrid MPPT Technique Using Fuzzy Logic and Ant Colony for Effective Solar Pumping Head	NON SCOPUS	0.6	<b>Mr.P.Marishkumar</b>
<b>4</b>	Design and Implementation of Photovoltaic Inverter system using Multi-cell Interleaved Fly-back Topology	NON SCOPUS	0.6	<b>Mrs.J.Lydia</b>
<b>5</b>	Threshold Monitoring System for Improving Baysman's Performance	NON SCOPUS	0.6	<b>Mrs.K.A.InduSailaja</b>
<b>6</b>	Threshold Monitoring System for Improving Baysman's Performance	NON SCOPUS	0.6	<b>Mr.G.Vignesh</b>
<b>7</b>	Hybrid MPPT Technique Using Fuzzy Logic and Ant Colony for Effective Solar Pumping Head	NON SCOPUS	0.6	<b>Mrs.K.A.InduSailaja</b>
<b>8</b>	Hybrid MPPT Technique Using Fuzzy Logic and Ant Colony for Effective Solar Pumping Head	NON SCOPUS	0.6	<b>Mrs.Keerthana R</b>
<b>9</b>	Optimal sizing and distribution system reconfiguration of hybrid FC/WT/PV system using cluster computing based on harmony search algorithm	SCOPUS	1.5	<b>Mrs.M.Deva Brinda</b>
<b>10</b>	Implementation of Web Context to Monitoring Load Frequency Control in a Deregulated Environment with Consideration of the Governor and Boiler Dynamics	SCOPUS	0.9	<b>Mrs.M.Deva Brinda</b>

## **REPORT ON IET PROFESSIONAL CHAPTER ACADEMIC AFFILIATE CERTIFICATE HANDING OVER FUNCTION**

The IET Professional Chapter of Easwari Engineering College has conducted a forum for **IET Academic Affiliate Certification handing over to Head of the Institution by Mr.Ian Mercer – Head, International Operations for (India-China), IET Chapter and Mr. Raghavan, Regional Head, (Southern Zone)** from 10.00am to 10.30 am at MD Conference Hall.

The following delegates were present on the Forum discussion

1. Deputy General/Deputy Director
2. Dean (Research)
3. Dean Academics
4. Dean (TQM)
5. Principal
6. Vice Principal
7. Heads of various Departments.



## **REPORT ON INAUGURAL FUNCTION OF SEEE**

The inaugural function of Society of Electrical and Electronic Engineers was organized by the department of Electrical and Electronics Engineering on 29<sup>th</sup> January 2018 in TRP Auditorium from 9.30am to 11.00am. The function was presided over by the chief guest Mr.S.Nandakumar- Director, MIPP International Limited Brunei Darussalam, Principal Dr.K.Kathiravan, HOD of EEE department Dr.E.Kaliappan and all coordinators. The function commenced with the "Tamil Thai valthu", which was followed by lighting of the 'Kuthuvalaku' by dignitaries. The welcome address was given by Dr.E.Kaliappan, Professor and Head of the Department/EEE. Then the annual report of the various activity organized by SEEE was presented by the student president Mr.G.Naveen, Final year EEE A. All the office bearers put forth the action plan for the academic year 2017-18 which includes the conduction of various technical event and workshops, which was followed by the introduction of the new set of office bearers by Mr.P.Marish Kumar, AP/EEE, Coordinator for SEEE. It was followed by introduction of the chief guest by Mrs.Deva Brinda, Associate Professor/EEE. Then the Chief Guest Presented the Inaugural address in which he explained to the students how the various professional societies in an institution are of great benefit to them, providing them the right platform in sculpting their technical skills. He also made them understand about what the world would demand out of an engineer. His speech served as a source of encouragement for the future engineers present there. Then the Principal presented the Presidential address in which he encouraged the students to participate more in Professional bodies and gain a lot of experience from such activities. Finally, Dr.K.Mala, Professor/EEE delivered the vote of thanks. The ceremony was concluded with the national anthem. The overall function proved to be a stimulus for the start of the new technical era.



## **BRIGHT SPARK JAKE DYSON HAS DESIGNED AN LED LIGHT THAT LASTS FOR 40 YEARS**

Designing lights since 2006, Dyson became frustrated with the stagnant state of lighting, where beautiful lamps are sold for a high price yet designed with little attention to the function. “LEDs have the ability to last for life – that’s why they were invented in the first place,” he says. “But companies sell LED lights that only last seven years so they can sell more in seven years’ time. I want my product to go into spaces where the interior doesn’t want to be changed for at least 25 years: airports or high-profile buildings, for example. What airport would want a light that only lasts seven years? Is there a light out there that answers their needs? Probably not.”

In the basement of their central London offices, “the dungeon” as he calls it, Dyson and his team have tested lights on the market to see if they live up to their claims of long-lasting brightness and efficiency. And – spoiler alert – they don’t. “In some cases you can buy an LED product and six months later it’s 30% less bright – but you won’t realize that because you’re living with it,” Dyson tells me, standing in front of several small mountains of cardboard boxes of his competitors’ products. In comparison, the Ariel will maintain its brightness for 180,000 hours, which if the light was on 12 hours a day, every day, at full brightness, is around 40 years.

Available in two models - as a downlight (for targeted lighting of a kitchen island, or a bank of office desks) and an uplight (for general illumination of a room) – and retailing at around £1,400 when it will be released next May, Ariel certainly isn’t cheap. But it is clever. In the four years it took to design it, Dyson learned that to make an LED’s performance last as long as possible, it needs to be kept under 60 degrees centigrade. For the Ariel, they got the heat down to 55 degrees, using pipes that draw the heat away from the LED as quickly as it is released. “It’s like a big radiator,” Dyson explains. “The heat comes off the pipes, is transferred through the fins, and is then dispersed into the air, so you get a continual cycle of heat being removed.”

The light also has a unique lens to give greater illumination and, as Dyson and his team discovered: “You need three or four of our competitors’ fittings to do what one of ours is doing, and each one of their fittings is the same power as one of ours, so that’s four times more electricity, four times more installation cost, and four times the product purchased cost, so Ariel actually comes out cheaply in comparison.”

The Ariel is also ZigBee WiFi-enabled, so can be controlled via an app, allowing users to set timers, or to link up their Ariel(s) to external light sensors so the light is dimmer on a sunny day, and brighter when it gets darker.

It also records the light’s electricity consumption and converts that into the KW/hour cost in the country it’s installed in – something that, surprisingly, other apps haven’t yet caught onto at this energy-conscious time.