AUGUST 2018 EDITION

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

SPARKZ 2018

ISSUE1, VOLUME1

CONTENTS

MESSAGE FROM THE HOD'S DESK

Hearty welcome and best wishes to all the departments who receive this newsletter. It gives me great pleasure to present the first issue of "SPARKZ" for the academic year 2018-2019. I cheerthe students to work hard from the beginning of the academic year and put in their best effortstowards their technical endeavors so that it may yield prolific results. I would like to thank all mycolleagues for their diligent efforts to help the department progress at a very steady rate of nots.

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.

ADVISORY COMMITTEE MEETING

The department of Electrical and Electronics Engineering had conducted the 4th advisory committee meeting on 31.7.2018 in the seminar hall ,1st floor,EEE department at 2.30PM with the following members.

1.Dr.V.Jagadeesh Kumar,Professor,Department of Electrical Engineering,
Head-Central Electronics centre & Dean(Academics Courses),IIT Madras,Chennai.
2.Dr.P.Vanaja Ranjan,
Professor,Department of Electrical And Electronics Engineering,Anna University,Chennai
3.Mr.Suresh Simadri,Smart Grid Solutions,
Architect,Siemens,Chennai
4.Dr.K.Kathiravan,Principal,Easwari Engineering College,Chennai-89
5.Vice Principal(Academics),Easwari Engineering College,Chennai-89
6.Vice Principal(Admin),Easwari Engineering College,Chennai-89
7.Dean(Research),Easwari Engineering College,Chennai-89
8.Dean(Academics),Easwari Engineering College,Chennai-89
9.Dr.E.Kaliyappan,Professor,Head / dept. of EEE, Easwari Engineering College,Chennai-89.
10.Dr.S.Nagarajan,Professor &Head / dept. of EIE,Easwari Engineering College,Chennai-89.

PLACEMENT SUMMARY:

.PLACEMENT FOR THE ACADEMIC YEAR 2017-2018

Placement 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
7	THINK & LEARN	02
8	FULL CREATIVE	01
9	VALUED EPISTIMICS GRE EDGE	01
10	FACE	01
11	AAGNA SOLUTION	07
12	VDART TECHNOLOGIES	04
13	WAYCOOL FOODS & PRODUCTS PVT. LTD.	04
14	SHRIRAM TRANSPORT	01
15	SYSTECH SOLUTIONS	01
16	JRA ANALYTICS	02
17	SUTHERLAND	11
18	EQUITY BANK	12
19	HINDUJA GLOBAL SERVICES	18
20	PRODAPT	01

21	RUDRAN	10
22	PROMANTIS INC	01
23	SUTHERLAND	01
24	ENEXPE PRO(VARAD CORE SOLUTIONS)	03
25	ROBERT BOSCH	02
26	FRESHWORKS	01
27	ENCORE IT SERVICES SOLUTIONS PVT LTD	01
28	DXC TECHNOLOGIES	01
Total No of Students Placed		**134**

FACULTY ACHIVEMENT:

Dr.E.Kaliyappan,Professor and Head/EEE ,Was awarded with the 100 most dedicated professors by the world education congress at a international event held on 6th july2018 at Taj Endsland ,Mumbai.

REPORT ON NATIONAL LEVEL TECHNICAL NATIONAL CONFERENCE 2K18
RESOURCE PERSON: Dr. M. A. Panneerselvam ,Dean - EEE (Retd.,),Anna University,Chennai.

The Seventh National Conference on Technological Advancements in Power System and Power ElectronicsEngineering TAPSPEE 2018 was organized by the Department of Electrical And Electronics Engineering , Easwari Engineering College, Chennai On 26 th April 2018.

The inaugural function was conducted in Hi Tech Hall -I TRP Auditorium at 9.30am in presence of the Vice Principal ,HOD/EEE and the coordinators of the event.The event started with a warm welcome address by Dr.E.Kaliyappan welcomed the gathering also he emphasized the importance of the conference and briefed the sessions .

Dr.K.Mala, Professor, introduced the chiefguest.Dr Antony Aroul Raj V vice Principal facilitated the gathering.

Dr. A. Panneerselvam ,Dean - EEE (Retd.,),Anna University, Chennai has delivered the inaugural Address and emphasized the quality publications by faculty members and student members. An over whelming response received in and around from various engineering colleges and totally received 53 quality papers.

All the participants received the certificates and gave encouraging feedback about the conference.Vote of thanks was concluded by Mr.K.V.Thilagar , Assistant Professor/EEE.

GUEST LECTURE

The department of EEE has arranged a guest lecture on the topic **"Power system Protection and Auditing"** for IV B on 28th July 2018 & Saturday by Mr.G.Balamurali,Ph.D,AEE, TANGEDCO,Chennai,from 2.55PM to 3.45PM in LH 82.

Also has arranged a guest lecture on the topic " Issues on Power system Protection " for IV A on 31st July 2018 & Tuesday by Mr.S.Kumar,Ph.D,AEE, CEDC, TANGEDCO,West,Chennai,from 9.55AM to 10.45AM in LH 81.

Respected principal sir delivered a motivational task and a special lecture on digital logic circuits to our 2nd year students on 20.7.2018 from 2.55pm to 3.45pm in LH 1

INPLANT TRAINING

S. NO	Name of the student	Year/section	Company Name(mandatory)	Incorporation Status(mandatory)	From	To

1	ARUNEASWAR G	II A	BSNL, KADALUR	GOVERNMENT	18/6/2018	20/6/2018
2	KOUSHIKA PREETHI A	II A	SCHINEDER GmbH.,	Private	18/6/2018	23/6/2018
3	SHIVANI A	II B	BRAKES INDIA Pvt., Ltd.,	Private	11/6/2018	15/6/2018
4	BALAJI N BARATH SRINIVAS B BENEDICT ELIGIUS J	III A	ASHOK LEYLAND	Private	20/6/2018	26/6/2018
5	ARVIND VISHWANATH S BOSE KANNAN M ISVARIYA G MADHUVANTHI G	III A	TANTRANSCO, SUBSTATIO, GUINDY	GOVERNMENT	20/6/2018	22/6/2018
6	KAVIN R M KESHAV K KOUSALYA M MANIBHARATHI R MANIKANDAN E MUTHU MEERA S NANDHINI G	III A	TANGEDCO, MOUNT ROAD, TEYNAMPET	GOVERNMENT	14/6/2018	22/6/2018
7	JEYA PRIYA P	III A	BSNL, VIRDHUNAGAR	GOVERNMENT	20/6/2018	22/6/2018
8	JANANI N	III A	TN GOVERNMENT SOLAR TRAINING	GOVERNMENT	1/5/2018	30/5/2018
9	NETHISH BHRADHWAJ S NIVEDHITHA M VARUN SEKAR V G VENKATESH R YASHIKA N	III B	TNEB SUBSTATION, GUINDY	GOVERNMENT	18/6/2018	23/6/2018
10	VAISHNAVI S NIVEDITA G	III B	BAROLA TECHNOLOGIES	Private	16/6/2018	19/6/2018

11	ROSHINI B V SHARUPRIYA.M SUBHASHINI S NIVEDHITHA M	III B	EMU WORKSHOP, TAMBARAM	Private	11/6/2018	14/6/2018
12	SHIVANI P	III B	GRUNDFOS Pvt., Ltd.,	Private	10/6/2018	15/6/2018
13	SUBHESH L SUSHMITA M S SWETHA S	III B	HVF, AVADI	GOVERNMENT	18/6/2018	23/6/2018
14	YASHIKA N SHANMUGA PRIYA V	III B	IAL, MANALI	GOVERNMENT	28/6/2018	30/6/2018
15	RAGHAV E RAMAKRISHNA N G	III B	LARSEN & TUBRO, PORUR	Private	13/6/2018	27/6/2018

INTERNATIONAL JOURNAL

Dr.R.Karpagam,G. Swaminathan, Tharun. G, Sakthivel. T, Venkatesh. V," Highly sensitive pin-accessibility for ATM using human body communication", International Journal of Advance Research, Ideas and Innovations in Technology, ISSN: 2454-132X: PP:1931-1934,June 2018.

M. Deva Brinda, A. Suresh,M.R. Rashmi," A literature survey on LFC in a deregulated electricity environment",World Review of Science, Technology and Sustainable Development, Vol.14, No.1, pp.1 – 10,2018

M.Deva Brinda," Concurrent PV Conditioner with Interleaved Buck Converter Using Model Predictive Control", International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering , ISSN (Print) : 2320 – 3765 ISSN (Online): 2278 – 8875,Vol. 7, Issue 4, April 2018.

M.Padmapriya," A High-Voltage-Gain DC–AC Converter Based on Revised Dickson Charge Pump Voltage Multiplier", IJSRD - International Journal for Scientific Research & Development| Vol. 6, Issue 02, | ISSN (online): 2321-0613,pp:1387-1391,April 2018

M.Padmapriya,**Saravanan R ,Padmanaban U, Santhosh Kumar M, Shankara Narayanan K**," IoT based smart energy meter", International Journal of Advance Research, Ideas and Innovations in Technology, ISSN: 2454-132X, Volume 4, Issue 2,pp:20171-2073, April 2018

Dr.E.Kaliappan, Mohanram, Naganathan.N, Nagarajan.G, Nirmal.M.S," Smart Personal Transporter", International Journal of Innovative Research in Technology, Volume 4,Issue 11, May 2018.

Deva Brinda, M., Reshma, K., Poongothai, R. and Praveena, L,"Optimization Of Fault Current Limiter Placement Using Etap Software", International Journal of Recent Advances in Multidisciplinary Research ",Vol. 05, Issue 03, pp.3700-3707, March, 2018

B.Ponkarthika , Dr.E.Kaliappan , V.Vijeesh," Smart Voice Navigation System and Advanced Cane for Visually Impaired Person", International Journal Of Innovative Research In Technology (IJIRT), Volume 5 Issue 1 , ISSN: 2349-6002,June 2018

J.Lydia," Advanced vehicle tracking system with cloud based geo- position monitoring system", International Journal of Engineering Research & Technology (IJERT) ,ISSN: 2278-0181 Volume ,Issue 02, April 2018.

J.Lydia," IOT based child localization system",International Journal of Engineering Research & Technology (IJERT) ,ISSN: 2278-0181 Volume ,Issue 02, April 2018.

J.Lydia," Dual triple port dc-dc converter", **"**Iaetsd Journal For Advanced Research In Applied Sciences",Volume 5, Issue 4, Issn No: 2394-8442, April/2018.

B.Ponkarthika , Dr.E.Kaliappan , V.Vijeesh," Self Generative Electric Vehicle", International Journal of Scientific Research & Engineering Trends Volume 4, Issue 3, ISSN (Online): 2395-566X, May-June-2018.

National Conference

Dr.K.Mala, P.Mahila ,Bierenpattanaick," Analysis and design of power module for hybrid photovoltaic and wave energy systems", TAPSPEE April 2018,pp:184-188.

K.V.Thilagar,M.Padmasri,A.Padmini,E.Priyadharshini," Smart Surveillance for Bank Security", TAPSPEE April 2018,pp:148-151s.

V.Vijeesh,Priya.B,Sonia.M,Varsha.M.A," Automatic Prior Detection Of Accidents And Potholes", TAPSPEE April 2018,pp:137-143.

P.Senthilkumar,R.Saiprasad," Smart agriculture system using sensors and image processing system", TAPSPEE April 2018,pp:113-117.

Pushpakarthick.P ,Sharath Rajagopalan,Prem.R , Ganesh Kumar.C , "Flexible low power IoT controller for solar panel cleaning", TAPSPEE April 2018 pp:126-131.

Dr.E.Kaliappan,Dr.K.Mala, J.Nareshkumar**,"** Isolated Full Bridge Bidirectional Converter Integrated With Three Phase Inverter for Remote Area Backup", TAPSPEE April 2018,pp:132-136.

G. Vignesh,Y.V. Aishwarya,M. Jayasudha, P. Meenal,R.S. Nivethaa," Design and fabrication of a child rescue robot using remote monitoring systems", TAPSPEE April 2018,pp:16-19.

M.Padmapriya,Hariharasudhan.C, Mahesh Kanna.B,Joshua .G, Kiran Siddarth .R," A high-voltage-gain DC–AC converter based on revised dickson charge pump Voltage multiplier", TAPSPEE April 2018,pp:50-55.

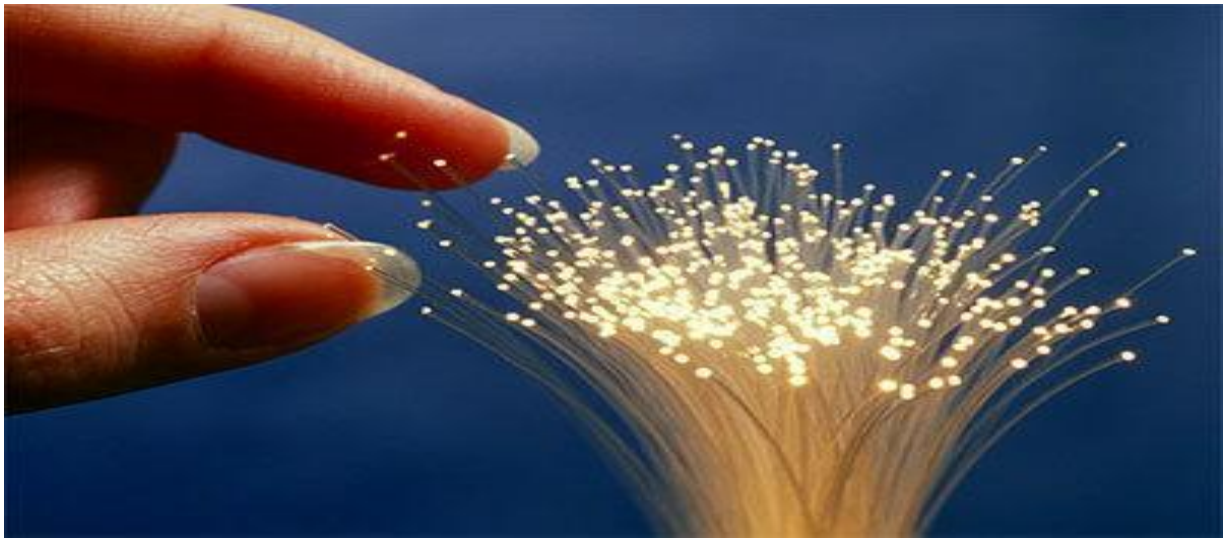
D .Chandrakala,M.Samprakash,P.Praveen,M.Vijayraghavan,B.Saibalaji," An improved transformer winding tap injection DSTATCOM topology", TAPSPEE April 2018,pp:25-28.

R.Keerthana, Vishal.S.V,Sai Malvika Venkatesh," Fire-Operating System", TAPSPEE April 2018,pp:144-147.

Dr.Mala.K,Prasanna Nimbalkar,Ramakrishnan G,Rengarajan N, Sriram A," Regenerative Quadcopter For Longer Flight Duration", TAPSPEE April 2018,pp:193-198.

INNOVATION

ELECTRICAL ENGINEER DEVELOPMENTS IN ELECTRICAL ENGINEERING



Electrical engineers are at the forefront of some of today's most important innovations. Whether working for the private sector, government, or major research institutes, electrical engineers are always pushing the boundaries of the possible. Recently, they've contributed to huge strides in energy efficiency, mobile technology, accessibility, transportation, telecommunication, and much more. Let's take a look at some of the most exciting new ideas in thefield.

HighEfficiencyPhotovoltaicCells

One of the enduring challenges of modern electrical engineering is to find an implementation of photovoltaic technology that is efficient, effective under varying operating conditions, and highly resistant to damage – while not being cost-prohibitive. Different engineering approaches have been used to raise collection and distribution efficiency, though perovskite-based cells have recently captured the most attention at major research facilities.

GreenEnergyElectricalPowerConverter

Once you collect energy, converting it for use in the electrical system is an essential next step. A new power converter developed in the Department of Electrical Engineering at the University of Arkansas will now make it easier for users of renewable energy to shunt excess energy into the power grid. This has the potential to make rooftop solar initiatives much easier and to further incentivize homeowners to pursue energy efficient technology.

SmartElectricalGrids

As energy systems become more complex and energy sources become more diverse, smart grids are growing in importance worldwide. Smart grids integrate innovative electrical technology at multiple levels to improve flow control, detect malfunctions, and automate service delivery. With end-to-end communication between power plants, distribution sites, and the end user's electrical point-of-presence, it becomes possible to raise efficiency and reduce costs.

VirtualReality

Virtual reality draws on multiple disciplines, but in terms of providing a sensory experience that maps effectively to "real life," electrical engineering is crucial. The earliest VR technologies consisted of a headset with gloves as an input device, rendering the user mostly stationary. Positional tracking is now making VR more interactive, but the market has yet to develop a solution using a complete array of sensors.

EyeTrackingTechnology

As many consumers develop an adversarial relationship to conventional digital advertising, eye tracking becomes essential – not only to deliver commercial messages, but to better understand what information is of greatest interest. As it has matured, eye tracking technology has grown into an important frontier in accessibility for the disabled, allowing technology access through eye movement. Sensitive electronic sensors are the basis of virtually all eye tracking.

WirelessWearableTech

The idea of the "Personal Area Network" has been around in computing science for a long time, but it's only now becoming a practical reality. Devices can now operate on a smaller scale than ever and interface seamlessly with the wider environment. Wearable devices have been developed to authenticate access to vehicles and machinery, improve reading comprehension while engaged in exercise, and provide communications information without the use of a phone.

Graphene

As electrical engineers reach the performance constraints caused by the fundamental properties of matter, advances in materials science become essential. Graphene is perhaps the most important recent innovation. Graphene consists of a single layer of carbon atoms one million times thinner than paper. It's so thin that it is actually considered two-dimensional. Graphene's unique characteristics make it the strongest known material on Earth. It can stretch by 20%, making it as pliable as rubber. It will provide immense gains in battery life for portable devices and is uniquely well-suited for wearable technology that collects biometric information from the user. In short, it may be essential to the future of electrical engineering.

IonThrusterEnergy

It comes as no surprise Star Trek was a defining force in inspiring thousands of people around the world to develop and pursue an interest in engineering. One of the engineering challenges presented by that vision of the future was this: What kind of novel propulsion technology would be necessary to allow manned spaceflight to distant worlds?
NASA and others have been working on the prototype ion engine for years, envisioning a way to carry large amounts of supplies and equipment through space. It uses solar power as a charging mechanism and expels xenon gas. Electrons from the solar panel will be trapped in a magnetic field and then used to ionize the xenon propellant for total thrust of 13kW.

PersonalFlyingCars

People – engineers and others – have been thinking about flying cars since The Jetsons. Now, a private U.S. firm called Terrafugia is tackling the engineering challenges necessary to deliver a personal flying craft that offers the control and safety required for regular civilian use. It calls its flagship product The Transition, which combines driving and flying in a single vehicle.

To create a commercially viable dual-use vehicle, Terrafugia has had to combine best practices in automotive technology and aeronautics. This includes a number of innovations of keen interest to electrical engineers, including an engine that successfully powers both the rear wheels and the propeller using unleaded gasoline. It also incorporates advanced carbon fiber construction.

40GBWi-Fi

The maximum speed of Internet connectivity, whether wired or wireless, has always been defined by foundational challenges in electrical engineering – semiconductor size and composition, for example. Each advance in speed represents a fundamental shift in engineering processes, whether from applying novel materials, new transmission media, or other technology.

Back in 2013, the Karlsruhe Institute of Technology in Germany broke the speed limit for Wi-Fi by delivering 40 gigabytes of data per second over a distance of more than half a mile. The key innovation was a new set of chips capable of processing signals at higher-than-usual frequencies. The shorter the wavelength, the more powerful Wi-Fi can theoretically be.

GALLERY

தொட்டும் மனிதனி
மேகம் என்றும் அழுததில்லை
நடக்கும் பாதைக்கு
பூமி என்றும் சிரமம் கொண்டதில்லை
உதிர்ந்து விடும் இலைகளுக்கு
மரம் என்றும் வருந்தியதில்லை
வாழ்வில் வரும் தோல்விக்கு மட்டும்
மனிதன் ஏன் உடைந்துபோக வேண்டும்
தோல்வி கூட ஒரு சுகம்தான்
அதை நீ புரிந்துக்கொள்ளும் போது

"இன்பம், துன்பம், வெற்றி, தோல்வி"
வாழ்வின் நான்கு நிலைகள்
அதனை மாற்றவும் முடியாது
நம்மால் மறுக்கவும் முடியாது.

VISHALI IV B

GALLARY

ASWATH RAM III A

SANJANA.IV B