

MESSAGE FROM THE HOD'S DESK

*Hearty welcome and best wishes to all the individuals who receive this newsletter. It gives me great pleasure to present the fourth issue of "SPARKZ" for the academic year 2020-2021. 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 would like to thank all my colleagues for their diligent efforts to help the department progress at a very steady rate of knots. We as a team strive hard to take the department to the height of success, glory and to achieve our vision.*

THE EDITORIAL TEAM

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PROFESSOR &amp; HOD/EEE

## EDITOR:

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ASSISTANT PROFESSOR/EEE

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U.INDUJA -IV A

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S.P.YASHWANTH KUMAR –  
IV B

R.SRI RAJA SUMAN - III B

COURSES OFFERED:

- BE- ELECTRICAL & ELECTRONICS ENGINEERING
- ME- EMBEDDED SYSTEM TECHNOLOGIES
- PH.D/M.S(RESEARCH)

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.

# ACTIVITIES CONDUCTED BY THE DEPARTMENT

## AICTE-ISTE Sponsored Induction /Refresher Programme-Phase II

The Department of EEE Inaugurated the **Six-days AICTE-ISTE Sponsored Induction /Refresher Programme-Phase II on Recent Trends in EV Technologies** at 09.00 am on 23.03.2021 through google meet platform. CoI. B. Venkat, Director, Faculty Development Cell, AICTE, New Delhi, was the chief guest for the inaugural function. Dr. Pratapsingh Kakasaheb Desai, President-ISTE, New Delhi was the Guest of Honour.



## AICTE-ISTE Sponsored Induction /Refresher Programme-Phase III

The Department of EEE Inaugurated the **Six-days AICTE-ISTE Sponsored Induction /Refresher Programme-Phase III on Recent Trends in EV Technologies** at 09.00 am on 20.04.2021 through google meet platform. Dr. Uma Raghunathan, Director-Internal audit cell, AICTE, New Delhi was the chief guest for the inaugural function. Dr. P. Sakthivel, Dean, University College of Engineering, Kancheepuram was the Guest of Honour.



## Centre for Renewable Energy Research (CRER)

Center for Excellence in Renewable Energy Research (CRER) conducted a Core Teaching session on "**All about Solar PV for Start-up**" on 01.05.2021. Mr. R. Harish, Design Engineer, Sun360 Pvt. Ltd, Goa, (Alumnus 2015-19) batch handled the session and explained the students about the stages of roof top Solar PV installation and commissioning. He also shared the huge opportunities awaiting in the Market for setting up a Start-up in commercial Solar PV industries, recent demand & opportunities.



## Society of Electrical & Electronics Engineers (SEEE)

Webinar was conducted on "**Technology within Remote Monitoring of Solar PV Hybrid Inverter & Internship Opportunities in Core Companies**" on 15.05.2021. The session was handled by Ms. M. Kalai Arasi, ME EST II year student and an Intern @ E-hands Energy (India) Pvt. Ltd. She explained to the participants about the skillsets and method of approaching core companies for internship and also explained her internship on developing a Remote Monitoring System of Solar PV Hybrid Inverter.



# ACTIVITIES CONDUCTED BY THE DEPARTMENT

(March-May)

S.No	Date	Webinar/Workshop/Core Teaching	Name of the Resource Person and Designation	No of Participants Benefited
1.	06.03.2021	Webinar on Decoding Abroad Studies	Mr.A.S. Aswath Ram, Graduate Thesis Student, MS, Illinois Institute of Technology, Chicago,USA (2016-20 EEE Alumni)	51
2.	22.04.2021	Webinar on Interview Preparedness	Monishaa Sridharan, Product Marketing Specialist, Zoho corporation,Chennai (2012-16 EEE Alumni)	94
3.	04.05.2021	Webinar on Protection Relays:A Technicians Approach	Mr.R.Rakesh Ravi, Sr. Protection Engineer , V equal IR T&C Services Pvt.Ltd., Chennai	100
4.	04.05.2021	Webinar on Application of Fourier Transform	Mr.S.Saranraj, Junior Engineer, BSNL,Chennai	75
5.	08.05.2021	Webinar on Automation in Industry 4.0	Dr.N.Ganesh, Program Manager, Verizon Technology,Chennai.	50
6.	15.05.2021	Webinar on Equip Yourself For A Successful Career	Mr.Aravind Prasad, Key Note Manager, Zomato Pvt Ltd.,Chennai. (2013-17 EEE Alumni)	60
7.	15.05.2021	International Webinar and Core Teaching Guest Lecture session on Overview of Real Time Embedded Industrial System and Instrumentation	Mr.Periyasamy Muthu, Associate Engineer, Trio Tech International, Singapore	55
8.	19.05.2021	Core Teaching on Overview of Solid state drives and industrial insights in special electrical machines	A.M.Kirubashankar, Senior Manager , Mahindra and Mahindra Pvt Ltd,Chennai. (2013-15 P.G Alumni)	60
9.	27.05.2021	International Workshop on Circuit Simulator Software-Proteus	Dr.M.Murugananandhan, Lecturer, Ibri College of Technology, Ibri, Sulatanate of Oman	50

## School Outreach Program

S.No	Date	Name of the Event	Name of the Resource Person and Designation	Name of the School
1.	13.03.2021	Bring Out Your Best	Mrs.Sujitha Raveen, Manager, ANEW, Chennai	Little Flower Matriculation Higher Secondary School,Chennai
2.	13.03.2021	Career Guidance Program	Mrs.N.Priya,Mr.G.Vignesh, Mrs.J.Lydia, Assistant Professor/EEE, Easwari Engineering College,Chennai	Jaigopal Garodia Government Girls Higher Secondary School,Chennai
3.	27.03.2021	Be Your Best Version- Building Self Confidence	Ms.S.Niranjani, Faculty, Department of English, Anna University , Chennai	Little Oxford Matriculation Higher Secondary School,Chennai

# ACTIVITIES CONDUCTED BY THE DEPARTMENT

(March- May)

## School Outreach Program

S.No	Date	Name of the Event	Name of the Resource Person and Designation	Name of the School
4.	27.03.2021	Path To Success	Ms.K.Sowndarya, Electrical Design Engineer, Water & Effluent Treatment IC, L& Construction, Chennai, (2015-19 EEE Alumni)	Narayana e-Techno Senior Secondary School, Chennai
5.	28.03.2021	Unleash Your Potential-Stress Management	Dr.Mahadi Shiraj, CRRI, Sri Ramachandra Medical College & Hospitals ,Chennai. Ms.S.Niranjani, Faculty, Department of English, Anna University , Chennai	Chinmaya Vidyalaya Higher Secondary School, Chennai
6.	12.04.2021	Handling Anxiety & Stress- Proficient Ways	Ms.Meenu Sangeetha, Psychologist & Psychotherapist, Managing Director, Ardhasaasthra Chennai	Sivanthi Matriculation Higher Secondary School, Chennai
7.	17.04.2021	Career Guidance & Job Opportunities	Mr.G.Vignesh, Assistant Professor, Department of EEE, Easwari Engineering College, Chennai	Kendriya Vidyalaya, Chennai
8.	29.04.2021	Career Guidance & Job Opportunities	Mr.Arvind Ram Prakash, Project Engineer-II, E-con Systems, Chennai. (2013-17 EEE Alumni)	Jain Vidyaashram Senior Secondary School, Chennai.
9.	12.05.2021	Mind Fest –Online Quiz Event	Dr.P.Marish Kumar, Mrs.K.A.Indu Sailaja, Dr.K.V.Thilagar, Assistant Professor, Department of EEE, Easwari Engineering College, Chennai	For All the Higher Secondary School Students
10.	10.05.2021	Science Challenge'21- A Technical Quiz	Mrs.J.Lydia, Mrs.K.A.Indu Sailaja, Assistant Professor, Department of EEE, Easwari Engineering College Chennai	For All the Higher Secondary School Students
11.	08.05.2021	Emerging Technologies & Job Opportunities	Mr.B.Y.Aswin, Software Engineer, Robert Bosch, Bangalore. (2015-19 EEE Alumni)	Higher Secondary School Students in Madurai Region
12.	26.05.2021	Renewable Energy- Global Transition & Job Opportunities	Ms.R.Meenu Balika, Financial Operation Specialist, Citi Bank, Chennai. (2015-19 EEE Alumni)	Government Girls Higher Secondary School Students, Salem



**FACULTY ACHIEVEMENTS  
(March- May)**

**International Journal/ Conference Publications**

S. No.	Paper
1.	<b>Karpagam R,</b> " Design and Implementation of Intelligent Head Protective Gear for Accident Detection and Notification ", IOP Conference Series: Materials Science and Engineering, Volume 1084, Pages 1-12,2021.
2.	<b>Mrs.J.Lydia,</b> "Dynamic Health monitoring and Threat detection for soldiers", International Conference on Multidisciplinary Innovations in Computing and Communication,20 April 2021.
3.	<b>Mrs.J.Lydia,</b> "Participatory Scritinized Monitoring System using Raspberry Pi", International Conference on Multidisciplinary Innovations in Computing and Communication, 20 April 2021
4.	<b>P.Pushpakarthik,P.Marish Kumar,K.A.Indu sailaja,</b> "IOT Based Smart Waste disposal detection and intimation system" PENSEE Publication, Feb 2021,ISSN NO:0031-4773,page No:640-643.
5.	<b>Karpagam R,</b> "Structural and Mechanical Properties of Lignite Fly Ash and Flax-added Polypropylene Polymer Matrix Composite",Journal of natural fibres, Volume No.18, Issue No.7, Page No:1-19,May 2021.

**Online Courses Completed**

Name of the Faculty	Name of the Course	Duration	NPTEL/ Coursera
Dr.P.Marish Kumar	Python For Data Science	4 Weeks	NPTEL
Dr.E.Kaliappan	Introdcution to Machine Learning	6 Weeks	Coursera
Dr.D.Fathema Farzana	Introdcution to Machine Learning	6 Weeks	Coursera
Ms.B.Ponkarthika	Introdcution to Machine Learning	6 Weeks	Coursera

**STUDENT ACHIEVEMENTS  
(March- May)**

**Higher Studies**



**B.Akash Hari** (Batch 2017-21) has got selected for **Ph.D in Electrical Engineering** at University of Central Florida,USA, under doctorate fellowship for the year 2021-22. Received a Fellowship of \$88,000.



**R.Jashwanth Venkatesh** (Batch 2017-21) has got selected for **M.S in Supply Chain Management** at University of Texas,USA.



**B.Tejasri** (Batch 2017-21) has got selected for **MBA-M.S in Business Analytics** at State University of New York, Buffalo.

## STUDENT ACHIEVEMENTS

(March- May)



**Amudha.M and Indhuja.K.S** of EEE III A Sec has won the **First Prize** in **VAISH BIZ FEST 2021** - Idea Generation (Business Plan Proposal) conducted by SDNB Vaishnav College for Women, Chennai. They have won a Cash Prize of Rs.1500 for their idea of Accident Prevention Smart Helmet .



**Ponraj Krishna.J** of EEE III year A section has developed a 3D Printed Quadcopter Drone for gathering data through **Aerial Surveying and Mapping Techniques** at an industry named "Land and Tool Infrastructure Pvt. Ltd" on 20.05.2021. Industry had certified his work with appreciation and approved the drone for its usage in industries.



**Abhishek Dheeven.T** of III year EEE A Sec Successfully Completed **6 Online Modular Courses** on Power Electronics & Electric Vehicles Conducted by the IEEE.

- ❖ 6 courses offered by IEEE Power Electronics Society & IEEE Transportation Electrification Community.



**K.Christober** of I year EEE secured 6th place in senior heavy weight category body building competition –April'21.

### Internship

S.No	Batch	Name of the student	Name of the Industry / Organization	Stipend
1.	2017-21	S.S.Bharathi Kannan	Embed UR Systems	Rs.15,000
2.	2017-21	A.Koushika Preethi	Zoho Corporation	Rs.15,000
3.	2017-21	K.Sankar Narayanan	Zoho Corporation	Rs.15,000
4.	2017-21	M.Prem Shankar	Zoho Corporation	Rs.15,000
5.	2017-21	R.Jashwanth Venkatesh	AKT Creations	Performance based
6.	2017-21	B.Akash Hari	Infinite Engineers	Rs.12,000
7.	2017-21	A.Shivani	Vahani	-
8.	2017-21	P.Adithya	Chegg India pvt.ltd	Rs.1,000
9.	2018-22	A.R.Mohammad Rizwaan	International Model United Nations (Internshala)	Performance based
10.	2018-22	S.Sadhana	Muskurahat Foundation (Internshala)	Performance based
11.	2018-22	Mohammed Kaif	Admatic Solutions(Internshala)	Rs.10,000
12.	2018-22	B.Harini	24 Happy Pots (Internshala)	Performance based

# STUDENT ACHIEVEMENTS

(March-May)

## Internship

S.No	Batch	Name of the student	Name of the Industry / Organization	Stipend
13.	2018-22	M.Chandru	Expertrons Technologies Pvt.Ltd.,	Rs.7,500
14.	2018-22	S.Malini Preetha	Expertrons Technologies Pvt.Ltd.,	Rs.7,500
15.	2018-22	M.Duyavan	Expertrons Technologies Pvt.Ltd.,	Rs.6,500
16.	2018-22	Mohmed Yakub Sikander	Raptee Energy Pvt.Ltd.,	Performance based
17.	2018-22	R.Shalini	Life Ecosystem & Unschool Community	Performance based
18.	2018-22	W.Mohammad Azfar	Banbanjara	Rs.1,000
19.	2018-22	R.Hirthikraj	Friend in need INDIA	Rs.2,000
20.	2020-24	K.Sree Durga	Question Box Education Pvt.Ltd.,	Rs.4,500



**Bharathi Kannan S S**  
EEE-A-4th YEAR



**Koushika Preethi A**  
EEE-A-4th YEAR



**Sankar Narayanan K**  
EEE-B-4th YEAR



**Prem Shankar M**  
EEE-B-4th YEAR



**Akash Hari B**  
EEE-A-IV YEAR



**Jaswanth Venkatesh R**  
EEE-A-IV YEAR



**Adithya P**  
EEE-A-IV YEAR



**Shivani A**  
EEE-B-IV YEAR



**Chandru M**  
EEE-A-3rd YEAR



**Duyavan M**  
EEE-A-3rd YEAR



**Malini Preetha S**  
EEE-A-3rd YEAR



**MOHMED YAKUB SIKANDER**  
EEE-B-3rd YEAR



**Hirthikraj R**  
EEE-A-III YEAR



**Mohammad Azfar W**  
EEE-B-III YEAR



**Shalini R**  
EEE-B-III YEAR

# PLACEMENT RECORD

## Placement Summary (as on 31.05.2021)

S.No	Name of the Company	No of students placed
1.	ACCENTURE	8
2.	BRAKES INDIA	1
3.	BYJU'S LEARNING	1
4.	COGNIZANT	3
5.	DUCEN IT	1
6.	E-HANDS ENERGY	1
7.	EMBEDUR SYSTEMS	1
8.	HCL TECHNOLOGIES	5
9.	INFOSYS HACKWITHINFY	1
10.	KAAR TECHNOLOGIES	1
11.	L&T INFOTECH	1
12.	NTT DATA	1
13.	SOLARTIS TECHNOLOGY SERVICE PVT LTD	2
14.	SUTHERLAND GLOBAL SERVICES	28
15.	TCS NINJA	11
16.	THINKSYNQ SOLUTIONS	2
17.	WIPRO	1
18.	ZOHO CORPORATION	4
<b>Total No of Students Placed</b>		<b>73*</b>

### UG Students:

S.No	Name of the students	Name of the company
1.	KESHAVA RAMAN V M	ACCENTURE
2.	NAVEEN R	ACCENTURE
3.	RAGHURAM B	ACCENTURE
4.	RAVEENA R	ACCENTURE
5.	SANJANA S	ACCENTURE
6.	SANTHOSE E	ACCENTURE
7.	SIVANEE SS	ACCENTURE
8.	SREERAM M	ACCENTURE
9.	NAVEEN B	BRAKES INDIA
10.	RAVI R	BYJU'S LEARNING
11.	CHANDRU G	COGNIZANT
12.	NANDHA KUMAR R	COGNIZANT
13.	VISHAL S V	COGNIZANT
14.	NANDHINIEE K	DUCEN IT

S.No	Name of the Company	Name of the company
15.	BHARATHI KANNAN S S	EMBEDUR SYSTEMS
16.	SHIVANI A	HCL TECHNOLOGIES
17.	KOWSHIK GANESHRAM J	HCL TECHNOLOGIES
18.	SANKAR NARAYANAN K	HCL TECHNOLOGIES
19.	SRIRAM R	HCL TECHNOLOGIES
20.	SIVANESAN AR	HCL TECHNOLOGIES
21.	KESHAVA RAMAN V M	INFOSYS HACKWITHINFY
22.	POOJA R	KAAR TECHNOLOGIES
23.	VIGNESH V	L&T INFOTECH
24.	INDUJA U	NTT DATA
25.	SANTHANU C	SOLARTIS TECHNOLOGY SERVICE PVT LTD
26.	SHOUMIK SIVAM J	SOLARTIS TECHNOLOGY SERVICE PVT LTD
27.	ARUNDHATHI A	SUTHERLAND GLOBAL SERVICES
28.	ASHWATHA M	SUTHERLAND GLOBAL SERVICES
29.	ASHWIN KUMAR S	SUTHERLAND GLOBAL SERVICES
30.	DIVYA SAI SUDHA P	SUTHERLAND GLOBAL SERVICES
31.	PRANAV PS	SUTHERLAND GLOBAL SERVICES
32.	SANTHANU C	SUTHERLAND GLOBAL SERVICES
33.	SHARAN P	SUTHERLAND GLOBAL SERVICES
34.	VIGNESH B	SUTHERLAND GLOBAL SERVICES
35.	ABHINAVSAN E	SUTHERLAND GLOBAL SERVICES



## PLACEMENT RECORD

S.No	Name of the students	Name of the company
36.	AKHILESH S P	SUTHERLAND GLOBAL SERVICES
37.	BALA MURALIKRISHNAN P	SUTHERLAND GLOBAL SERVICES
38.	DEVADHARSHINI J	SUTHERLAND GLOBAL SERVICES
39.	FAIZUL RAHMAN A R	SUTHERLAND GLOBAL SERVICES
40.	INDUJA U	SUTHERLAND GLOBAL SERVICES
41.	KOTHANDARAMAN P	SUTHERLAND GLOBAL SERVICES
42.	KOUSHIKA PREETHI A	SUTHERLAND GLOBAL SERVICES
43.	KOWSHIK GANESHRAM J	SUTHERLAND GLOBAL SERVICES
44.	MAHESWARAN T	SUTHERLAND GLOBAL SERVICES
45.	MUBARAK RAJA M	SUTHERLAND GLOBAL SERVICES
46.	POOJA R	SUTHERLAND GLOBAL SERVICES
47.	PREM Shankar M	SUTHERLAND GLOBAL SERVICES
48.	SHIVADHARSHAN M	SUTHERLAND GLOBAL SERVICES
49.	SHIVANI A	SUTHERLAND GLOBAL SERVICES
50.	SHOUMIK SIVAM J	SUTHERLAND GLOBAL SERVICES
51.	SIVANESAN AR	SUTHERLAND GLOBAL SERVICES
52.	VIDHYA LAKSHMI P	SUTHERLAND GLOBAL SERVICES
53.	GOPALAKRISHNAN V	SUTHERLAND GLOBAL SERVICES
54.	SANKAR NARAYANAN K	SUTHERLAND GLOBAL SERVICES

S.No	Name of the students	Name of the company
55.	AKASH HARI B	TCS NINJA
56.	ARJUN SAI CHANDRA B	TCS NINJA
57.	BALAJI M	TCS NINJA
58.	CHANDRU G	TCS NINJA
59.	GHOKUL S L	TCS NINJA
60.	KESHAVA RAMAN V M	TCS NINJA
61.	KISHORE M	TCS NINJA
62.	NAVEEN B	TCS NINJA
63.	PARTHASARATHI M	TCS NINJA
64.	VENKATESH R	TCS NINJA
65.	VISHAL S V	TCS NINJA
66.	AGATHIYAN M V	THINKSYNQ SOLUTIONS
67.	VETRIVELAN P	THINKSYNQ SOLUTIONS
68.	RAJAHAMSA R	WIPRO
69.	GOWTHAM M	ZOHO CORPORATION
70.	KOUSHIKA PREETHI A	ZOHO CORPORATION
71.	PREM SHANKAR M	ZOHO CORPORATION
72.	SANKAR NARAYANAN K	ZOHO CORPORATION

### PG Students:

S.No	Name of the students	Name of the company
1.	KALAIARASI.M	E-HANDS ENERGY

Congratulations to all the placed students.

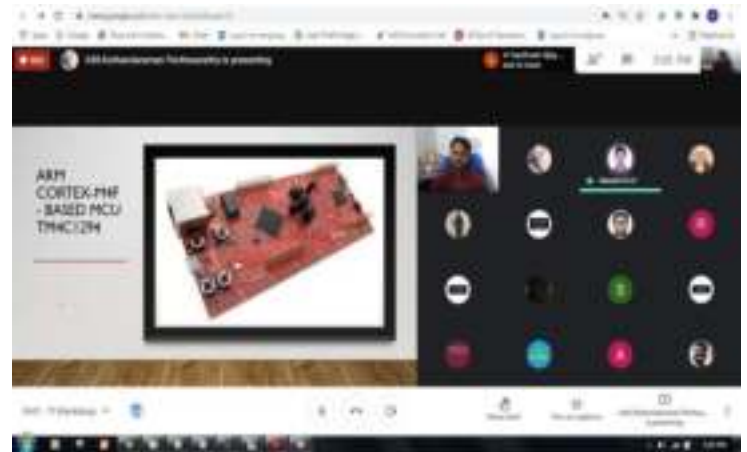
# CLUB ACTIVITIES

## Electronics Hobby Club

1.Virtual Workshop on “Analyzing Your brain with EEG-TGAM Module” by T.Abhishek Dheeven III EEE A was conducted on 06.03.2021.



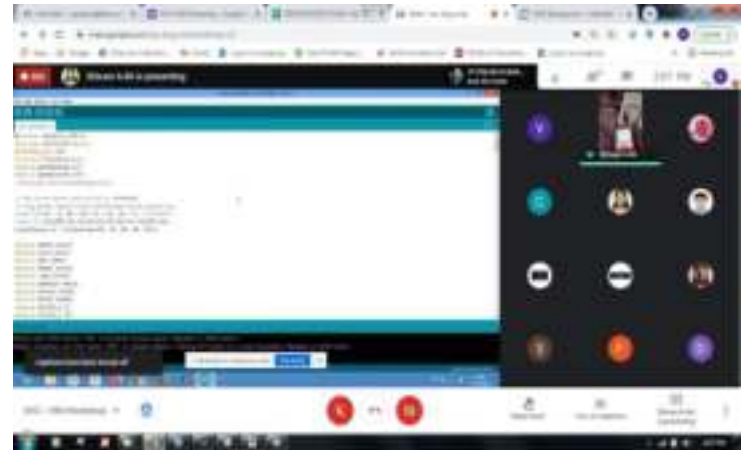
2. Live Workshop on Getting Started with “Arm cortex-M4F based Texas Instruments MCU” by R.Naveen IV EEE B was conducted on 20.03.21.



3. Virtual Workshop on “Robotic Arm using Auriduino” by R.Muthu Kumar II EEE B was conducted on 03.04.2021.



4.Online Workshop on “Design a custom HMI- Touch screen using arduino” by A.Shivani IV EEE B was conducted on 17.04.2021.



5.Virtual DIY Workshop on “Custom 3D printed Drone” by J.Ponraj Krishna III EEE A was conducted on 01.05.2021.



## CLUB ACTIVITIES

### Free Open Source Software Club For Electrical Engineers

1. Virtual Training Session on “NI Multisim” by B.Srikumaresh , R.Vinod Kumar III EEE B was conducted on 13.03.2021.



2. Virtual Training Session on “Universal Windows Platform” by S.V.Vishal IV EEE B was conducted on 27.03.2021.



3. Virtual Training Session on “Big Data Empowering Machine learning” by G.Cema I M.E-EST was conducted on 10.04.2021.



4. Virtual Training on “MATLAB” by A.S. Aswath Ram, Graduate Thesis Student, Illinois institute of technology, Chicago, USA was conducted on 27.04.2021.



5. Virtual training on "Circuito.io" by J.Ponraj Krishnan of III EEE A was conducted on 08.05.21 It was followed by a technical event "Unmask the hidden task" conducted by M.Amudha of III EEE A.



6. Virtual training session on “Proteus- A PCB Design and Simulator Software by K.Thirumaran of III EEE B was conducted on 22.05.21.





# CLUB ACTIVITIES

## Journal Club

1. Technical Presentation on “Convolutional Neural Networks” by R Priyadharshini III EEE B was conducted on 13.03.2021.



2. Technical Presentation on “Solar Drone car” by S.Kausalya III EEE A was conducted on 27.03.21.



3. Technical Presentation on “Perovskite Based Solar Cell” by M.Amudha III EEE A was conducted on 10.04.2021.



4. Technical Presentation on “Detection Of Power System Transmission Line Fault Based On Discrete Cosine & Discrete Orthogonal Stock Well Transform Using Convolutional Neural Network” by V.Vignesh, B.Tejasri IV EEE B was conducted on 24.04.2021.



5. Technical Presentation on “Design and Implementation of Communication Protocol for EV Charging Infrastructure” by A.Shivani IV EEE B was conducted on 08.05.2021.



6. Technical Presentation on “Multiwinding Digital Transformer” by M.Premshankar, A.R.Sivanesan IV EEE B was conducted on 22.05.2021.





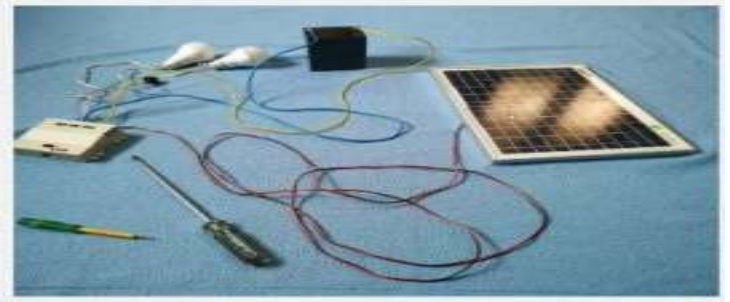
## CLUB ACTIVITIES

### Green Energy Club

1. Hands on Session on “Wind Turbine Blade Design” by P.Nitheesh III EEE B was conducted on 06.03.2021.



2. Webinar on “Solar Tracking & Monitoring System” by K.Thirumaran, R.Sanjeev Kumar, R.Vinod Kumar III EEE B was conducted on 20.03.2021.



3. Webinar on “Implementation Of Hybrid Energy Systems” by P.V.Sai deepak III EEE B was conducted on 17.04.2021.



4. Webinar on “Tesla Solar Roofing” M.Duyavan, K.Dinesh III EEE A was conducted on 24.04.2021.



5. Hands on Session on “System Advisor Model (SRM)” by R.Manimaran III EEE B was conducted on 15.05.2021.



### Energy Club

Event Name: Cleverbots

Date : 31.03.2021



Event Name: Master Minds

Date : 22.04.2021



**Chip Design for Future Gravitational Wave Detectors:**

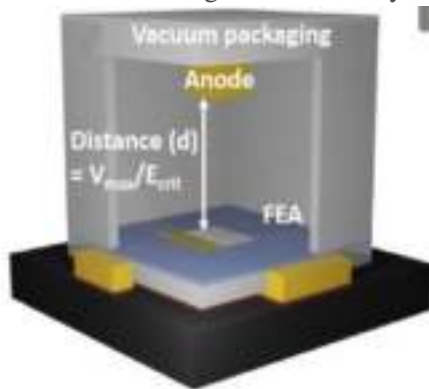
Advanced gravitational wave detectors have to operate under extreme conditions of temperature and/or radiation. Today, there are limitations on existing device models required for the design of custom chips for these systems. Specific limitations are highlighted for the Einstein Telescope and LISA design cases, demonstrating the need for extended foundry models to accelerate the development of electronics to support such advanced experiments.

**High Frequency Power Si Vacuum Transistor:**

A MIT-led team described the first Si vacuum transistor operating at ~40 kV and with the potential to have a semiconductor-like footprint. Such a high voltage level is normally reserved for wide-bandgap materials like SiC and GaN.

The proof-of-concept device consists of a gated field emission array or FEA (i.e., an electron source), a vacuum drift region and a metal anode. Electrons are emitted from the gated field emission array into the vacuum through tunneling, travel through it and are collected at the anode.

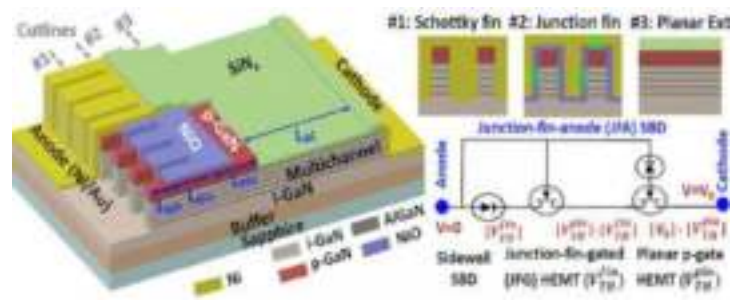
The vacuum determines the transport properties and the high-voltage isolation. Using this technology as a baseline, the researchers will provide intrinsic benchmarks for vacuum transistors. They say the high critical electric field and unbounded carrier velocity of these devices can lead to compact, high-performance vacuum devices able to outperform solid-state devices on all metrics, making them suitable for a range of high-power and high-frequency applications, and also as next-generation X-ray sources.

**High Power Rectifier Improvements for Grid:**

For years, bipolar Si PN diodes have been the main diode technology used to build high-voltage (1.7–10 kV) rectifiers for industrial motor drives, pulsed power systems, and power grid applications, but the diode performance is limited by poor reverse-recovery times.

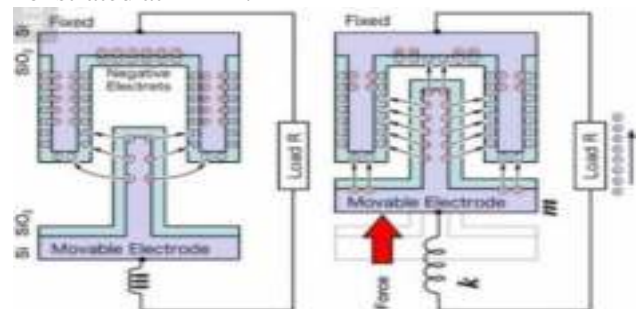
More recently, unipolar SiC Schottky barrier diodes (SBDs) and junction barrier Schottky diodes have been demonstrated up to 10 kV and commercialized at 3.3 kV. GaN, however, has superior physical properties to Si and SiC, and at IEDM a Virginia Tech-led team described the first multi-kV operation of lateral AlGaIn/GaN Schottky diodes. Built on 4-inch GaN-on-sapphire wafers, the devices consist of a stack of five parallel 2DEG (two-directional electron gas) channels in combination with a fin-based 3D anode structure that wraps the p-n junction around the fins.

They demonstrated a 5.2 kV breakdown voltage, specific on-resistance as low as 13.5 mΩ·cm<sup>2</sup>, and low off-state leakage current, leading to a 2 GW/cm<sup>2</sup> figure of merit which surpasses that of unipolar SiC Schottky barrier diodes. The results show the potential of AlGaIn/GaN multi-channel devices for medium- and high-voltage power applications.

**MEMS Vibrational Energy Harvester for IoT:**

A microelectromechanical systems (MEMS) vibrational energy harvester of electrostatic induction type is developed by using a built-in potential produced by the permanent electrical charges or so-called “electrets.”

Silicon micromachining technology is used to integrate the electret skins in the MEMS harvester that yields maximum power of more than 1.2 mW from the environmental vibrations of 0.65 G (1 G = 9.8 m/s<sup>2</sup>) at 158 Hz. A power-autonomous ZigBee wireless sensor node was also demonstrated at IEDM.





## GALLERY

### “LET ME JUST TRY “

I woke up to a dreary day in the sun,  
 Just to find out what my next few curbs would be.  
 I stood before the stealth polished silver,  
 Looking at my deluded eyes tired of abrasion.  
 I was forever put into a grot,  
 That was dark and daunting.  
 Once my hair flew down my chest with fulgurating waves,  
 Now I see them all around.  
 I touched there,  
 The ostensible whimper with an explicated bulge.  
 We all leave the flesh and blood at the sane phase,  
 But could the soul ooze without being noticed?  
 In the land filled with hopes and rages,  
 My story could be trifling.  
 But am here to chase away the gloom off my world,  
 And to fill this little margin with love.  
 Dolling up myself everyday not to beguile,  
 But to conceal my bones that protrude through  
 my skin to get hints of fresh air.  
 I wash down all the pessimism not to feel great,  
 But just to calm down my cretin insides that ache in silence.  
 Every time I spit blood on someone's crepe,  
 My mind seems deluded and halfwit.

Am I living a lie in search of a thing...  
 That is far away in the sky?  
 I look beside and behind,  
 To see a note of thanks or credence...  
 But all I could spot shall be disguised as sympathy.  
 Every time I scream in pain,  
 My cheeks get shrunken unable to bear the loser in vain.  
 My bald head is heavy for my little puny torso...  
 People swarm around me and cry all day,  
 About what could've happened.  
 I smile at things that I want to cry for.  
 My eyes don't lie,  
 They are devastated and tired.  
 My chest cannot heave a long breath,  
 For it is now decrepit and wan.  
 My crooked neck and bellowing throats are now weary,  
 For the blood inside me is now vicious.  
 My dreams shattered and my memories scattered,  
 Only things that I remember is my whining.  
 My whining that fills the air around me.  
 It seems to me that my aura got castrated,  
 For now, I am in a battle.  
 That may never end for a girl who has departed,

For nobody to hear it even through the walls.  
 Sometimes I stuff the wool into my tongue that is dry,  
 For my sounds are not to be heard.  
 My pain is not scrutible for the normal eyes.  
 I pray and pray, but in a pale round land of mine,  
 That stinks and is rejuvenated every moment by the blood I shed.  
 It was revolting at a time to touch the fluids that I puked,  
 But now the truth is in the world for me to find.  
 I may snap or strain.  
 But I could do nothing more.  
 The veins instigated with drugs,  
 It is now my turn,  
 To revolt the days that made my life miserable.  
 I may screw up myself,  
 Without making a dent.  
 I may not need the hugs or flowers.  
 I need the valor to fight this battle,  
 The battle with armless battalion.

I may be strewn to the dust and taken away with it,  
 I may never see the faces that hailed or cursed.  
 It doesn't matter if it makes my stance better,  
 But it is all I can and shall I do.  
 I won't do anything but try.  
 Try to fill my little world with cheerfulness,  
 Give my insides a war  
 Give my insides a warm hustle to  
 Help them out of this nightmare,  
 This cancer that ate away my life and grit with the tears I shed.  
 It pricks my walls,  
 But what lies inside is unknown.  
 I am ready to shed tears to fill the sea.  
 It may wreck my little spirit,  
 But let me just try.

**-SREE DURGA.K- I EEE**

### “ONE NATION & THEN PARTITION”

Once a huge tree with many branches, United with peace and calmness,  
 Fought for freedom with braveness, And parted due to a few's intolerances...

Due to disputes in divisions,  
 Situation led to unwanted commotion, Finally paved way to the Partition,  
 Letting the raise of two nations...

The reunion with a huge companion, May give peace to the upcoming  
 civilian, Then why do we need a median,  
 wait, What if another partition called Dravidian...?

**-GIRISH.B.B-I EEE**



**PRADEEP KUMAR.K- I EEE**



**DHIVIYA DHARISANA.D- I M.E EST**

# GALLERY



**MUTHU KUMAR.R- II B**



**NAVEEN.S- III B**



**SAHANA.A.M- II B**



**SHREENITHI.V- III B**



**PREETHI.S- II B**



**KOUSHIKA PREETHI. A- IV A**



**AMUDHA.M- III A**



**RAJAHAMSA.R- IV B**

