

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 third 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

CHIEF EDITOR:

Dr.E.KALIAPPAN,

PROFESSOR & HOD/EEE

EDITOR:

Ms.B.PONKARTHIKA,

ASSISTANT PROFESSOR/EEE

EDITORIAL MEMBERS:

A.KOUSHIKA PREETHI - IV A

U.INDUJA -IV A

S.S.SIVANEE-IV B

SAI MALAVIKA
VENKATESH-IV B

G.GUNASEKARAN - IV A

S.MALINI PREETHI- III A

T.EVANSEA TRACY-III A

B.SRIKUMARESH-III B

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

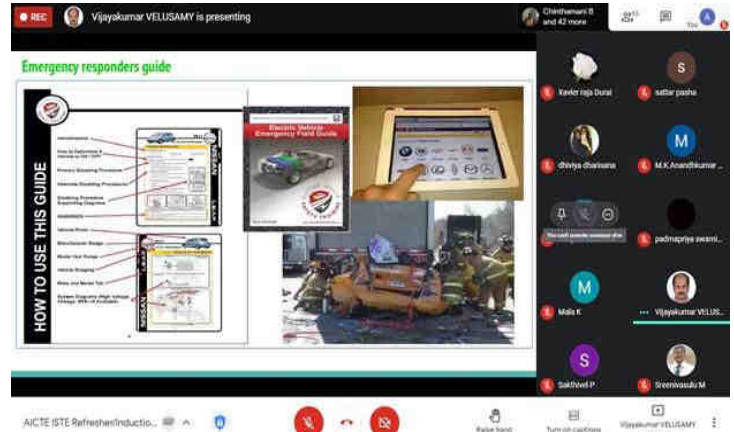
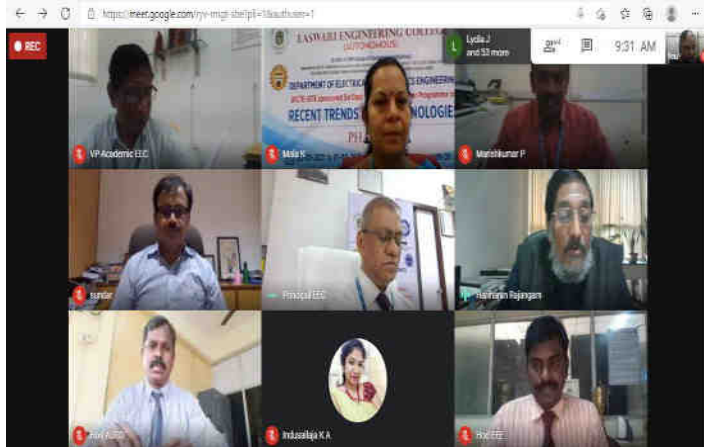
PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

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

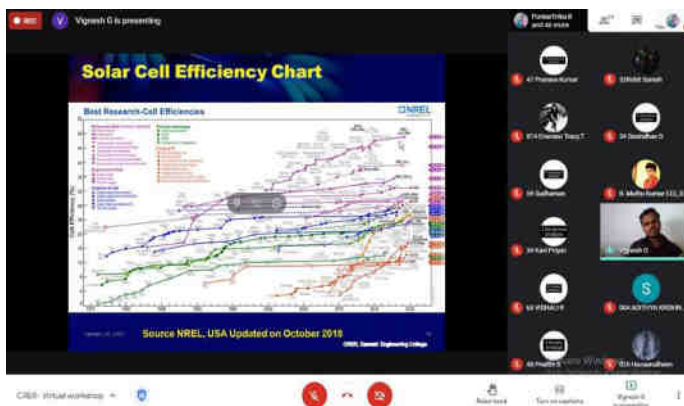
AICTE-ISTE Sponsored Induction /Refresher Programme-Phase I

The Department of EEE Inaugurated the **Six-days AICTE-ISTE Sponsored Induction /Refresher Programme-Phase I on Recent Trends in EV Technologies** at 09.30 am on 23.02.2021 through google meet platform. Professor R.Hariharan , Advisor-II (Approval Bureau) , AICTE, New Delhi, was the chief guest for the inaugural function. Mr.S.Sundareswaran, Head, EV Operations, Ashok Leyland, Chennai was the Guest of Honour.



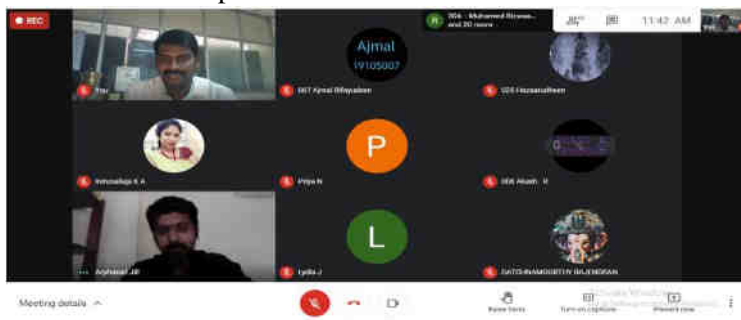
Centre for Renewable Energy Research (CRER)

The installation of Office bearers for Centre for Renewable Energy Research for the Academic Year 2020-21 followed by a **Virtual Skill Development Training Programme on “Solar PV Design”** was organized on 30.01.2021.

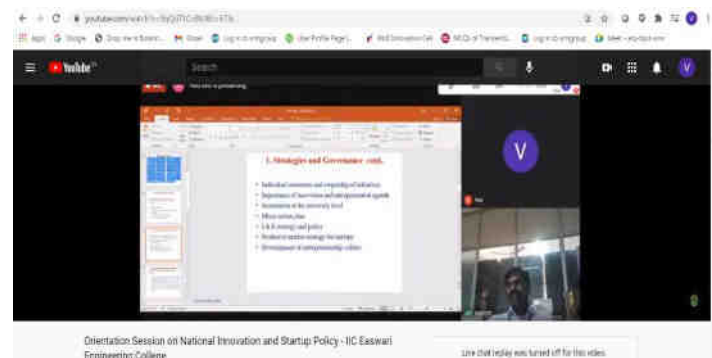


Webinar & Orientation Session

Webinar on **“Startup Ideas on Green Energy Technology”** was conducted. The session was handled by Mr.S. Arphaxad, M.E(PED) alumni (2013-2015), Key Account Manager, Eureka Forbes Ltd., Kochi on 27.02.2021 between 11.30 am to 12.30 pm.



Orientation Session on **“National Innovation and Startup Policy”** for Students and Faculty was conducted on 30.12.2021.



FACULTY ACHIEVEMENTS

International Journal & Conference Publications

S. No.	Paper
1.	R Karpagam, P Marish Kumar, "Investigation on corona performance of conductors using fabricated indoor corona cage", Materials Today: Proceedings 9 th Dec 2020.
2.	R. Karpagam ,"Journal of Natural Fibers Synthesis and Mechanical Properties of Natural Fiber Reinforced Epoxy/Polyester/Polypropylene Composites:A Review", Journal of Natural fibres,ISSN: 1544-0478 ,pp 1-24, 2020.
3.	J.Lydia , "Integrated Energy and Trust-Based Semi-Markov Prediction for Lifetime Maximization in Wireless Sensor Networks", Wireless Personal Communications (2021),pp.1-18, Springer US,23.1.2021.
4.	R. Karpagam ,"Influence of lignite fly ash on the structural and mechanical properties of flax-added polymer matrix composite Polymer Composites (Impact Factor: 2.268), 2021.
5.	R Karpagam, Priya.N, Lydia. J, Abishek DheevanT ,Solid State Switching Using Wireless Network in Home, Materials Today: Proceedings 21 st Feb2021.
6.	P.PushpaKarthick, E.Kaliappan, "Arduino-Based Alcohol Sensing Alert with Engine Locking System", EAI/Springer Innovations in Communication and Computing, pp. 293–305,2021.
7.	E.Kaliappan,B.Ponkarthika, " Remote surveillance and communication using television white space", Lecture Notes on Data Engineering and Communications Technologies, 59, pp. 475–487, 2021.
8.	Dr.E.Kaliappan, B.Ponkarthika, Dr.D.Fathema Farzana, G.Vignesh, " Performance Evaluation of GAD Routing Protocol", second International Conference on Power, Energy, Control & ransmission systems,78-7281-1083-7/2020 IEEE Explore,10 & 11 th December 2020.
9.	R.Karpagam, " Intelligent Helmet With Sensors For Safe Driving" First International Conference on Circuits, Signals, Systems and Securities, Bannari amman institute of technology11 & 12 th December 2020.

NPTEL-Online Course Completed

						
Dr. E.Kaliappan Professor & Head	Dr. D. Fathema Farzana Assistant Professor (SI. Grade)	Mrs.D.Chandrakala Assistant Professor	Mrs.N.Priya Assistant Professor (SI. Grade)	Mrs.K.A.Indusailaja Assistant Professor	Ms.B.Ponkarthika Assistant Professor	Mrs.K.A.Indusailaja Assistant Professor
Introduction to Industry 4.0 and Industrial Internet of Things	Introduction to Industry 4.0 and Industrial Internet of Things	Switching Circuits and Logic Design	Applied Optimization for Wireless, Machine Learning, Big Data	Robotics	Introduction to Industry 4.0 and Industrial Internet of Things	DC Microgrid and Control System
Elite + Silver	Elite	Elite	Elite + Silver	ELITE	ELITE + SILVER	

Events Attended by Faculty

S.No.	FDP/Webinar/ Workshop/Online Course	No. of Faculty members attended
1	FDP	57
2	Workshop	05
3	Webinar	49
4	Online Course	09

STUDENT ACHIEVEMENTS

(December- February)

International Challenge on Innovative Futuristic Product Prototype

Congratulations



Amudha M
EEE III A



Dharshni S
EEE III A



Akila R B
EEE III A



Indhuja K S
EEE III A



Ishwariyaa R
EEE III A

Mentored By

Dr.D.Fathema Farzana



Secured
3rd Place
among 107 Teams
from India and Abroad

SIKKIM MANIPAL INSTITUTE OF
TECHNOLOGY
INNOVATIVE
FUTURISTIC PRODUCT PROTOTYPE
INTERNATIONAL CHALLENGE

Higher Studies (as on 28/02/2021)

S. No	Batch	Name of the student	Course & Specialization	University with Official Address
1.	2016-2020	Aswath Ram A.S	M.S, Electrical and Computer Engineering	Illinois Institute of Technology,USA
2.		Mohamed Safaith Hussain A	M.S, Electrical Computer Engineering	University of Windsor, Canada
3.		Arun Jeyaram S	M.S, Innovative Sustainable Energy Engineering	Chalmers University of Technology, Sweden
4.		Deepak Rex Antony.C	PGDM	Loyola Institute of Business Administration- Chennai

International Journal Publications

S. No.	Paper
1.	Abishek Dheevan.T , Solid State Switching Using Wireless Network in Home, Materials Today: Proceedings 21 st Feb2021.
2.	Madhevan, P.R., Aswath Ram, A.S., Abinesh, M.R., ” Remote surveillance and communication using television white space”, Lecture Notes on Data Engineering and Communications Technologies,59, pp. 475–487,2021.

STUDENT ACHIEVEMENTS

(December- February)

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	B.Akash Hari	Infinite Engineers	Rs.15,000
3.	2018-22	Mohammed Kaif	Admatic Solutions(Internshala)	Rs.10,000
4.	2020-24	K.Sree Durga	Bizapprise Media(Internshala)	Rs.2,000
5.	2019-23	S.Varrshini	Verzeo Edutech Pvt.	Rs.1,000
6.	2017-21	B. Akash Hari	AKT Creations	-
7.	2017-21	R. Jaswanth Venkatesh	AKT Creations	-
8.	2018-22	B.Harini	24 Happy Pots (Internshala)	-
9.	2018-22	A.R.Mohammad Rizwaan	International Model United Nations (Internshala)	-
10.	2018-22	S.Sadhana	Muskurahat Foundation (Internshala)	-
11.	2018-22	R.Vinod Kumar	Muskurahat Foundation (Internshala)	-
12.	2018-22	K.Thirumaran	Muskurahat Foundation (Internshala)	-

CONGRATULATIONS FOR GETTING INTERNSHIP AT INTERNSHALA



Harini B
EEE-A-3rd YEAR



Mohammed Kaif
EEE-B-3rd YEAR



Yashawinee BV
EEE-B-3rd YEAR



Muhamed Rizwaan A R
EEE-B-3rd YEAR



Sadhana S
EEE-B-3rd YEAR



Vinod Kumar R
EEE-B-3rd YEAR



Thirumaran K
EEE-B-3rd YEAR



Sree Durga K
EEE-A-1st YEAR

STUDENT ACHIEVEMENTS



Abhishek Dheeven.T of III year EEE Successfully Completed **8 Online Modular Courses** on Power Electronics & Electric Vehicles Conducted by the IEEE.

- ❖ 7 courses offered by IEEE Power Electronics Society & 1 course offered by IEEE Transportation Electrification Community.

K.Christober of I year EEE won the State and District level power lifting championship with **2 gold medals** and **5 silver medals** -2020.



NPTEL Online Course

Introduction to Industry 4.0 and Industrial Internet of Things



Venkatesh. H
EEE-2nd Year
Elite + Silver



Thanyaa X
EEE-2nd Year
Elite + Silver



ThamizhThendral P
EEE-2nd Year
Elite + Silver



Naveen. K
EEE-2nd Year
Elite + Silver



Kowsalya G
EEE-2nd Year
Elite



Vishali R
EEE-2nd Year
Elite



Ramya V
EEE-2nd Year
Elite



Logeshwaran M
EEE-2nd Year



Manikandan G
EEE-2nd Year



Preethi.S
EEE-2nd Year
Solar Photovoltaics
Fundamentals,
Technology And
Applications



NavinMouli. V
EEE-2nd
Fundamentals
of Micro and
Nanofabrication



Chandru.M
EEE-2nd Year
Introduction
to Embedded
System Design



Preethi.S
EEE-2nd Year
Introduction
to Embedded
System Design

PLACEMENT RECORD

Placement Summary:

S.No	Name of the Company	No of students placed
1.	ACCENTURE	20
2.	AMAZON	1
3.	BOSCH	2
4.	BYJUS	5
5.	CSS CORPARTION	1
6.	ECON SYSTEMS	2
7.	EMBERUR SYSTEMS	1
8.	ETHNUS	1
9.	FLDEC SYSTEMS	1
10.	FULL CREATIVE	1
11.	HCL TSS	2
12.	HEXAWARE TECHNOLOGIES	4
13.	IBM	1
14.	INFOSYS	1
15.	L&T INFOTECH	2
16.	MPHASIS	2
17.	SUTHERLAND GLOBAL SERVICES	11
18.	TATA ELXSI	1
19.	TCS NINJA	12
20.	THINKSYNQ SOLUTIONS PVT. LTD.	1
21.	TVS SUNDARAM FASTENERS	1
22.	VALUED EPISTEMICS PVT LTD	1
23.	WHIRLDATA SCIENCE	1
24.	WIPRO	2
25.	ZOHO CORPORATION	2
26.	NOKIA SOLUTIONS AND NETWORKS	1
27.	CAPEGEMINI	1
28.	BYD ELECTRONICS	5
Total No of Students Placed		86

UG Students:

S.No	Name of the students	Name of the company
1.	BARATH SRINIVAS B	ACCENTURE
2.	DINAKARAN A	ACCENTURE
3.	EUNICE A	ACCENTURE

S.No	Name of the Company	No of students placed
4.	GANAPATHI S	ACCENTURE
5.	GOWTHAM E	ACCENTURE
6.	KOUSALYA M	ACCENTURE
7.	MANIBHARATHI R	ACCENTURE
8.	MUTHU MEERA S	ACCENTURE
9.	NANDHINI G	ACCENTURE
10.	NISHANTH R	ACCENTURE
11.	PAVITHRA R K	ACCENTURE
12.	RINI JOHN	ACCENTURE
13.	RITHU PRIYANGA M	ACCENTURE
14.	SATHIYENDRAN M	ACCENTURE
15.	SHANMUGA PRIYA V	ACCENTURE
16.	SHRUTHI T	ACCENTURE
17.	SUBHASHINI S	ACCENTURE
18.	SUSHMITA M S	ACCENTURE
19.	SWETHA LAKSHMI A B	ACCENTURE
20.	TINO ISAAC I	ACCENTURE
21.	ABINESH M.R.	AMAZON
22.	ANAND VIGNESH R	BYJUS
23.	ARVIND VISHWANATH S	BYJUS
24.	VAISHNAVI S	CSS CORPARTION
25.	ADHITHIYA VENKATESH K	ECON SYSTEMS
26.	MADHEVAN P R	EMBEDUR SYSTEMS
27.	MUTHU MEERA S	ACCENTURE
28.	NIVEDHITHA M	FULL CREATIVE
29.	SHIVANI P	FLDEC SYSTEMS
30.	HAMSA PRIYA S	HCL TSS
31.	VAISHNAVI S	HCL TSS
32.	APARNA R	HEXAWARE TECHNOLOGIES
33.	RAMAKRISHNAN G	HEXAWARE TECHNOLOGIES
34.	SUKUMARAN M	HEXAWARE TECHNOLOGIES
35.	MONISH V	HEXAWARE TECHNOLOGIES
36.	SWATIKA R	IBM
37.	KAVIN R M	INFOSYS
38.	SUDARSHAN M	L&T INFOTECH
39.	THANIGAIVELAN R	L&T INFOTECH
40.	AKSHAYA S B	MPHASIS

PLACEMENT RECORD

S.No	Name of the students	Name of the company
41.	GOVARTHANAN M	MPHASIS
42.	MADHUVANTHI G	SUTHERLAND GLOBAL SERVICES
43.	DEEPAK VENKATESH V	SUTHERLAND GLOBAL SERVICES
44.	MOHAN. M	SUTHERLAND GLOBAL SERVICES
45.	ROSHAN NAWAZ.M	SUTHERLAND GLOBAL SERVICES
46.	BALAJI N	SUTHERLAND GLOBAL SERVICES
47.	GOWTHAM R	SUTHERLAND GLOBAL SERVICES
48.	ISVARIYA G	SUTHERLAND GLOBAL SERVICES
49.	KAVIN R M	SUTHERLAND GLOBAL SERVICES
50.	KISHORE KUMAR R	SUTHERLAND GLOBAL SERVICES
51.	MONISH V	SUTHERLAND GLOBAL SERVICES
52.	VIJAYAVIGNESH A	SUTHERLAND GLOBAL SERVICES
53.	ANIRUDH S	TATA ELXSI
54.	ASWATH RAM A S	TCS NINJA
55.	EUNICE A	TCS NINJA
56.	MOHAMED SAFAAITH HUSSAIN A	TCS NINJA
57.	PAVITHRA R K	TCS NINJA
58.	PRASHANTH M	TCS NINJA
59.	RINI JOHN	TCS NINJA
60.	SATHIYENDRAN M	TCS NINJA
61.	SEETHARAMAN J R	TCS NINJA
62.	SUSHMITA M S	TCS NINJA
63.	SWETHA VILASHINI B	TCS NINJA
64.	VARUN SEKAR V G	TCS NINJA
65.	HARINI.B.R	TCS NINJA
66.	BOSE KANNAN M	THINKSYNQ SOLUTIONS PVT. LTD.

S.No	Name of the students	Name of the company
67.	BOSE KANNAN M	TVS SUNDARAM FASTENERS
68.	VINOTH S	VALUED EPISTEMICS PVT LTD
69.	HEMANTH KUMAR M	WHIRLDATA SCIENCE
70.	NIVEDHITHA M	WIPRO
71.	KAVIN R M	WIPRO
72.	BENEDICT ELIGIUS J	ZOHO CORPORATION
73.	THABASSUM ASHIFFA I	ZOHO CORPORATION
74.	ROSHINI B V	CSS CORP
75.	DEEPAK VENKATESH V	BYJUS LEARNING
76.	MOHAN M	BYJUS LEARNING
77.	ROSHINI B V	NOKIA SOLUTIONS AND NETWORKS
78.	YASHIKA N	CAPEGEMINI
79.	RAGHAV E	BYJUS LEARNING
80.	PUGAZHENDHI GP	BYD ELECTRONICS
81.	BOSE KANNAN M	BYD ELECTRONICS
82.	NETHISH BHRADHWAJ S	BYD ELECTRONICS
83.	PRATHEEP KRISHNAN R	BYD ELECTRONICS
84.	ASHOK D	BYD ELECTRONICS

PG Students:

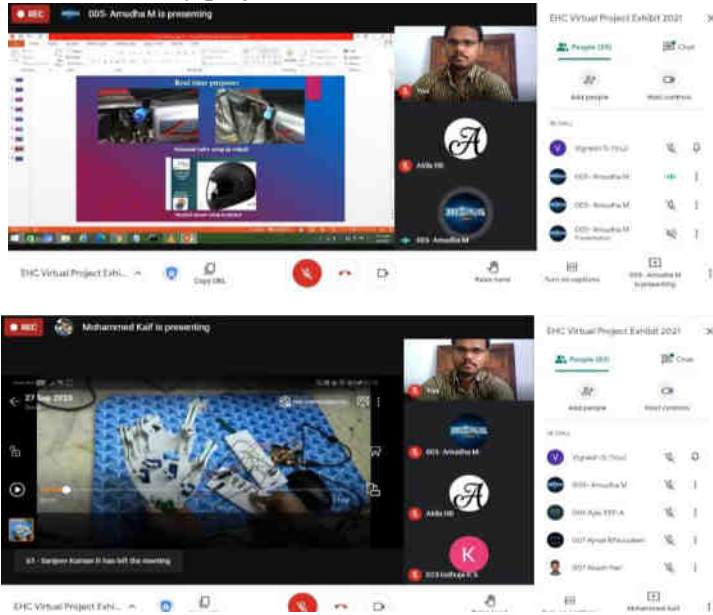
S.No	Name of the students	Name of the company
1.	V R HEMASRI RAMYA	ROBERT BOSCH
2.	SUDHARNA VINAYAGAM	ROBERT BOSCH

Congratulations to all the placed students.

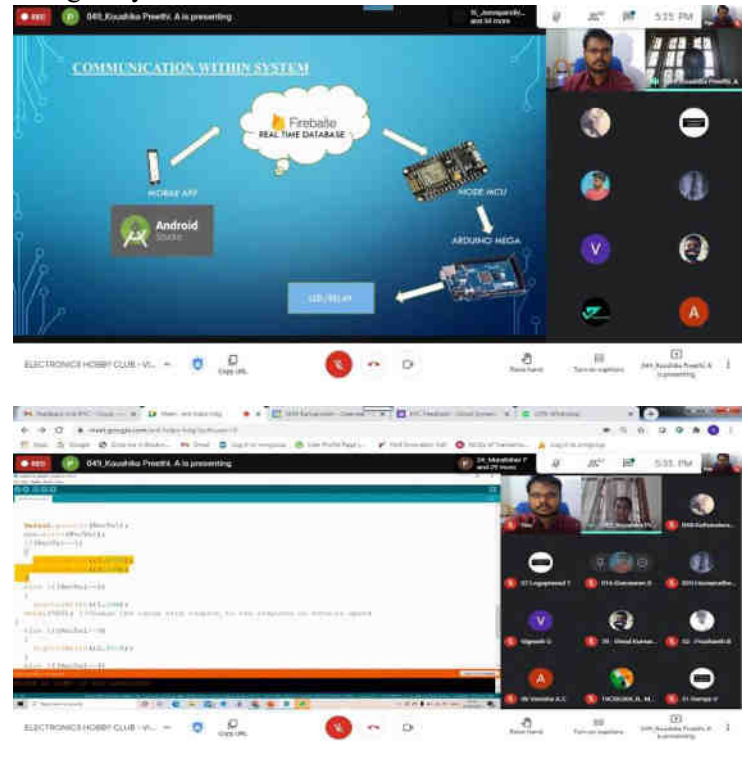
CLUB ACTIVITIES

Electronics Hobby Club

The Induction of office bearers and the “**Virtual Project Exhibit**”-2021 was conducted on 06.02.2021. Four batches from EEE dept evinced interest and displayed their project to the club members. This created an interest among student members of the club to involve themselves in few electronic hobby projects.

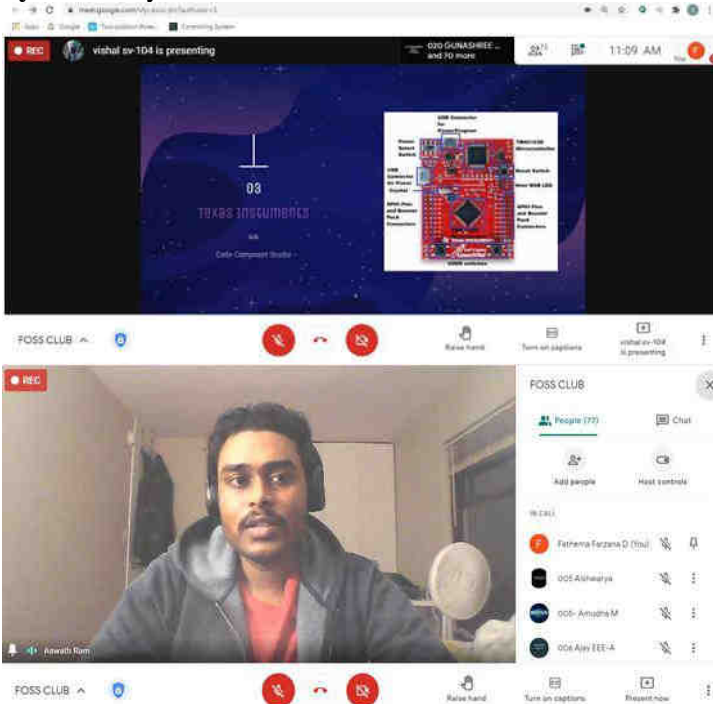


A Virtual training on “**Cloud based Embedded Project Design**” by A.Koushika Preethi was conducted on 21.02.21.

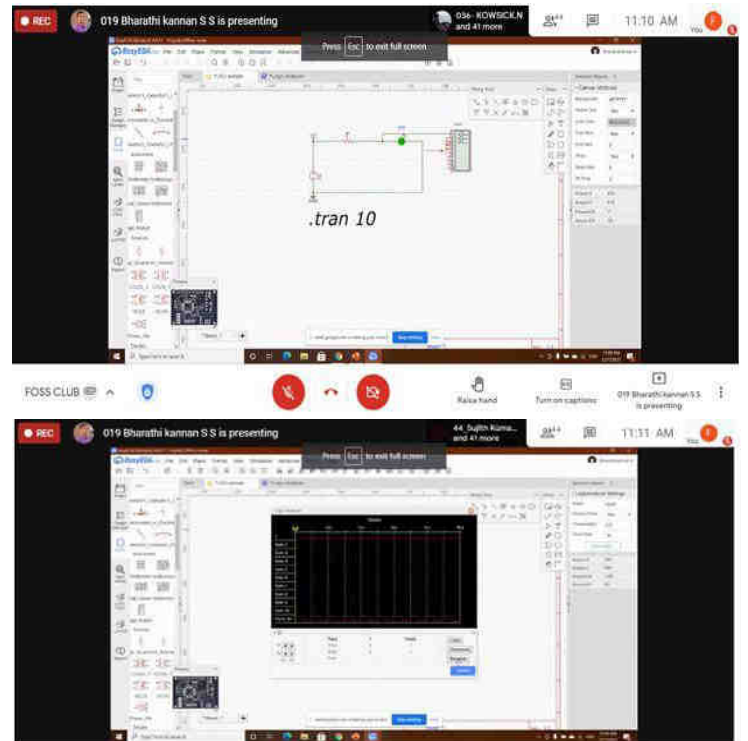


Free & Open Source Software (FOSS) Club

The Investiture Ceremony of office bearers of Free and Open Source Software (FOSS) Club followed by a presentation on “**Software for Industrial Embedded Systems**” by S.V.Vishal was conducted on 13.02.2021.



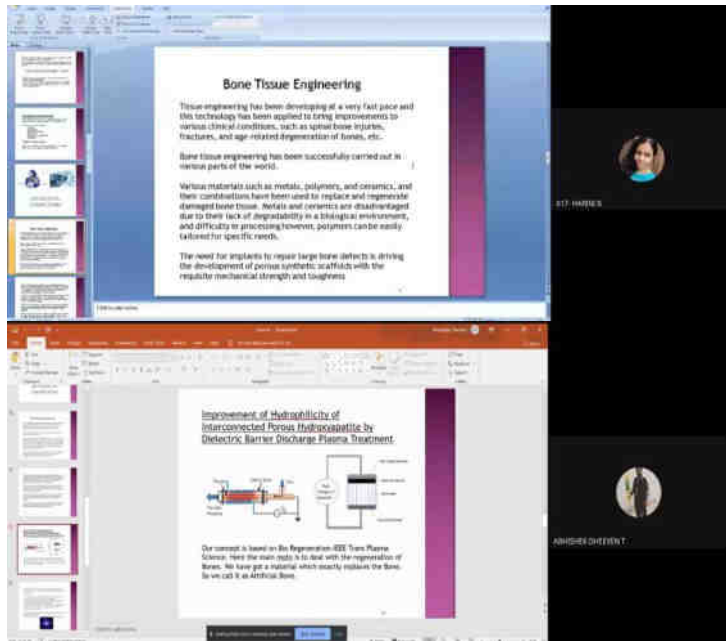
A training session on “**EasyEDA-Circuit design and simulation software**” by S.S.Bharathi Kannan was conducted on 27.02.2021



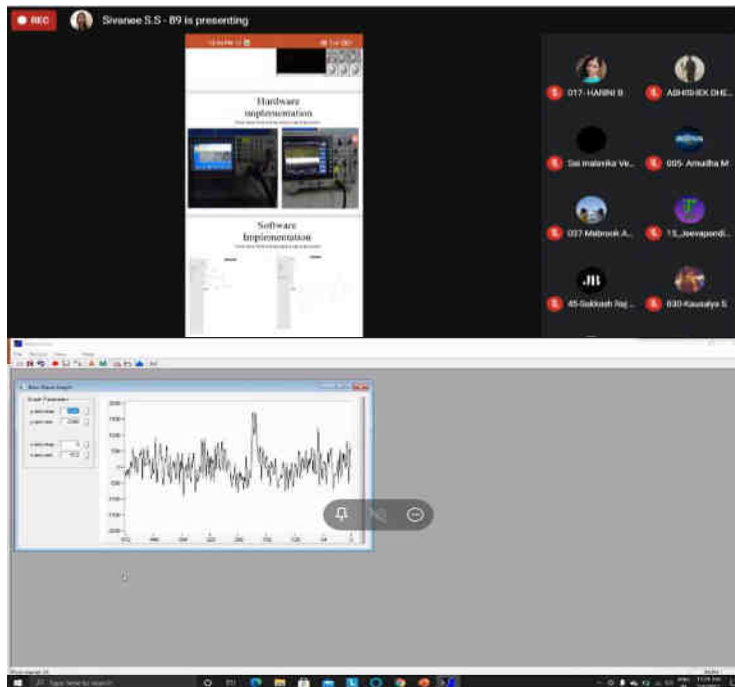
CLUBS & ACTIVITIES

Journal Club

The Installation of office bearers of Journal Club followed by a presentation on “**Bio Regeneration-IEEE Trans Plasma Science**” by T.Abhishek Dheeven & B.Harini was conducted on 13.02.2021.

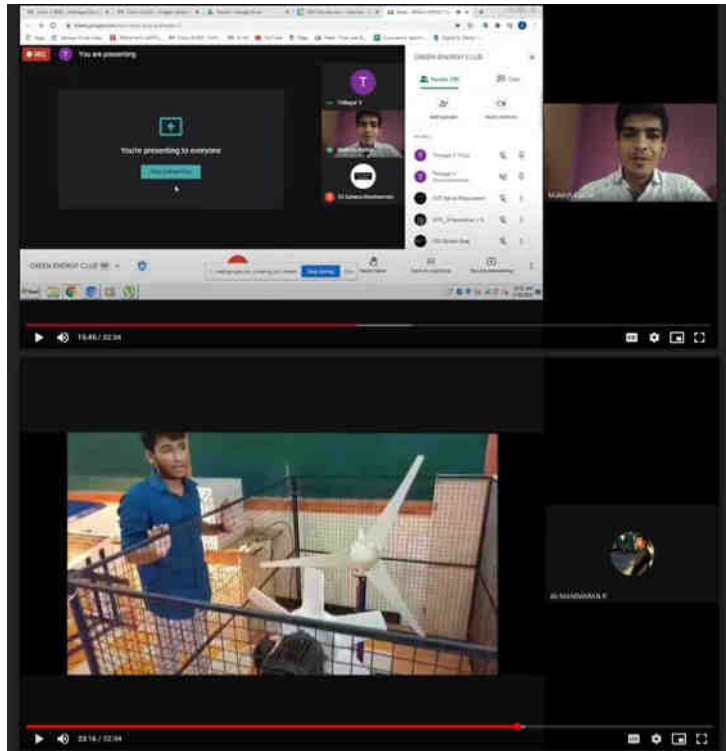


A presentation on “**Virtual Fault Simulator & Emulator for Induction Motor**” by S.S.Sivanee & Sai Malavika Venkatesh was conducted on 27.02.2021.



Green Energy Club

The Investiture Ceremony of office bearers of Green Energy Club followed by a technical presentation on “**Wind Energy System**” by R.Vinod Kumar was conducted on 20.02.2021.



Energy Club

Event : **Blockle (Technical Block and Tackle events)**
Date : 13/02/2021



Event : **Ramp Walk of Brains (A Paper Presentation Event)**
Date : 13/02/2021



Inventions in the Field of Electrical & Electronics Engineering

Advances in engineering equate to advances in society, to the point where we almost take them for granted. The light bulb and the television are now part of everyday life but were once inventions that bordered on the incomprehensible. It's important to remember that the following items may end up falling in the same category, which is exciting because that means even more innovations are ahead. For now, these advances are more than sufficient to capture the imagination.

The Flexible Smartphone with a Holographic Display:

The concept of beaming a holographic image from an electronic device such as a smartphone or a smartwatch has been in development for a few years and could be a communications game-changer. The image projected from the screen can be seen by the naked eye, without the use of 3D glasses and other devices. This image can be watched by several users who are on different sides of the gadget.

The Future Smartwatch:

Smartwatch technology is currently part of our everyday lives, but it continues to evolve as new innovations are added. The smartwatch of the future does not require the user to touch the screen or any part of the device. The development, dubbed SkinTrack, consists of a special ring and sensitive receiver in the form of a bracelet, which together can convert contact with the user's skin into signals.



Nanotube Transistor:

The current generation of integrated circuits is made of silicon-based transistors.

SILICON currently built at 22 nanometers

CARBON

Carbon nanotube transistors are similar in size, offer higher processing speeds and lower power consumption than silicon transistors, creating new opportunities for supercomputing capabilities.

JUST HOW SMALL IS A 22-NANOMETER SILICON TRANSISTOR?

About 4,000 silicon transistors can be spread across the width of a human hair.

IBM has created carbon-nanotube transistors at 0.8 nanometers, suggesting it is a potential and versatile material.

Nanotube transistors have been a huge game-changer in computing, but even they are beginning to evolve from their silicon-based design. Researchers have developed the first computer chip that uses carbon-nanotube transistors, which are smaller and more efficient than their silicon counterparts. This can lead to further supercomputing advances.

Electric Cars:

Of course, not all advances in electrical and computer engineering are microscopic. Electric cars are quickly gaining on their gas-guzzling counterparts in speed, horsepower, performance, and battery life. For instance, cars that can go more than 300 miles on a single charge have begun to hit the market.



Electrochemical Energy Technology

Finally, electrochemical energy technology continues to evolve into a more efficient process. Scientists project the clean energy it produces can have positive, cost-effective ramifications on agriculture and other key industries. Advances in computer and electrical engineering have been revolutionary over the past few decades, changing the way we live, work and play. From new advances in medicine to automotive technology and biotechnology, electrical and computer engineering has made great strides when it comes to improving the overall quality of life

PEE-TO-POWER TECHNOLOGY

GreenBox: An energy and chemical conversion technology that converts urine into electricity (and produces hydrogen).

Pee-to-Power Technology and the GreenBox developed by Ohio University Russ College Professor, Dr. Geraltine Botte

How it works

ELECTROCHEMICAL FLOW CAPACITOR

A research team at Drexel University has created an "electrochemical flow capacitor" (EFC) that offers the advantages of supercapacitors and batteries without the scalability disadvantage.

How it works

The EFC consists of an electrochemical cell connected to two external electrodes to store energy.

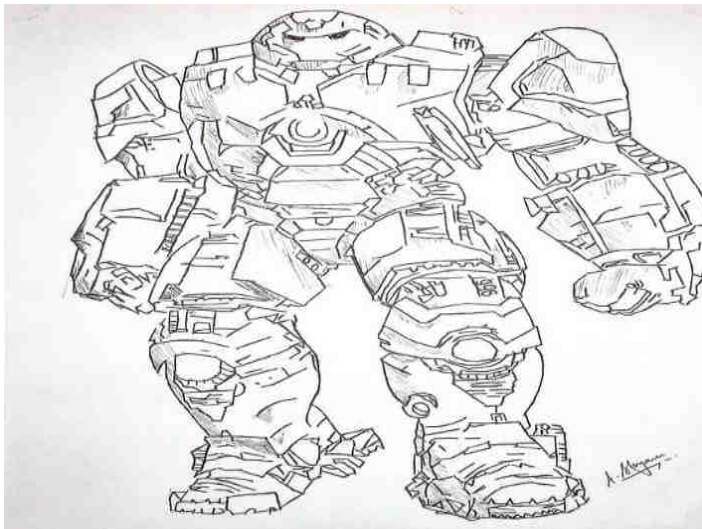
GALLERY



KOUSHIKA PREETHI. A- IV A



SAHANA.A.M- II B



SHYAM SUNDAR.A- IV B



MUTHU KUMAR.R- II B



SHREENTHI.V- III B



LOGA PRASAD.T- II B



PREETHI.S- II B