



MONTHLY MAGAZINE MARCH 2023

**PREPARED BY
ASSOCIATION OF ECE**



DEPARTMENT OF ECE



VISION

To be a centre of repute for learning and research with internationally accredited curriculum, state-of-the-art infrastructure and laboratories to enable the students to succeed in globally competitive environments in academics and industry.



MISSION

The Department is committed to:

- Motivate students to develop professional ethics, self confidence and leadership quality.
- Facilitate the students to acquire knowledge and skills innovatively to meet evolving global challenges and societal needs.
- Achieve excellence in academics, core engineering and research.

PROGRAMME SPECIFIC OUTCOMES (PSOs)

Graduates of the Electronics and Communication Engineering Programme will have the ability to:

PSO1: Analyze and Design, verify and validate VLSI Systems by selecting appropriate hardware and software tools.

PSO2: Design, develop and validate inter disciplinary products/ process by applying the knowledge and skills of Embedded Systems, Signal Processing, Electromagnetics and Communication Engineering.





PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

The Programme Educational Objectives of Electronics and Communication Engineering Undergraduate Programme are:

PEO1: Graduates will be successful as Professionals, Researchers or Entrepreneurs in Electronics, Information and Communication Engineering disciplines.

PEO2: Graduates will continuously be updated with the state-of the art technology through formal and informal education to provide sustainable solutions.

PEO3: Graduates will demonstrate ethical and social responsibilities as an individual and in a team of diverse culture.

PROGRAMME OUTCOMES (POs)

PO1: The graduates would be able to apply the knowledge of mathematics, sciences, engineering fundamentals and skills to solve problems in electronics and communication.

PO2: The graduates would acquire skills to analyse complex problems in the domain of electronics and communication engineering.

PO3: The graduates would be able to design, develop and validate solutions for electronics and communication systems meeting the specifications vis-à-vis the society.

PO4: The graduates will have proficiency to acquire, analyse data and interpret results leading to relevant research.

PO5: The graduates would be able to use appropriate modern engineering/simulation tools including modelling and forecasting for complex technological entities.

PO6: The graduates would have awareness of and the need to uphold professional responsibilities and also be aware of health, safety, social and legal aspects of their work.

PO7: The graduates would have an understanding of the societal and human context in which their engineering contributions will provide sustainable development.

PO8: The graduates would carry out professional responsibilities adhering to ethical and standard norms of engineering practices.

PO9: The graduates would have ability to function effectively as an individual and as a member or leader in diverse teams and in multi-disciplinary environment.

PO10: The graduates would be capable of communicating effectively with the engineering community and society at large.

PO11: The graduates would demonstrate knowledge and understanding of engineering and management principles for technological and socially relevant projects.

PO12: The graduates would recognize the need for and also have ability to engage in continual, life-long learning.

Samsung Electronics to invest \$230 billion by 2042 in South Korea chipmaking base



South Korean tech giant Samsung Electronics expects to invest \$230 billion over the next 20 years to develop what the country's government called the world's largest chipmaking base, in line with efforts to boost the national chip industry. Samsung's around 300 trillion won project is part of a 550 trillion won private-sector investment plan unveiled by the government. Samsung's manufacturing additions will include five chip factories and attract up to 150 materials, parts and equipment makers, fabless chipmakers, and semiconductor research-and-development organisations near Seoul. In addition to private-sector investment, the government will budget 25 trillion won or more over five years for R&D in strategic technologies such as artificial intelligence. It will provide about 360 billion won to develop chip packaging, and about 100 billion won in electricity and water infrastructure this year for industrial complexes. South Korea, home to the world's two biggest memory chip makers, Samsung Electronics and SK Hynix Inc, is seeking to improve supply-chain stability to become a major player in the non-memory chip field, currently dominated by chipmakers such as Taiwan Semiconductor Manufacturing Co Ltd and Intel Corp.

Rolls-Royce Will Build a Miniature Nuclear Reactor on the Moon



The UK Space Agency announced its backing research by Rolls-Royce into building miniaturized nuclear power plants on the lunar surface. While most space travel is powered by solar, the moon's surfaces remain in darkness two out of every four weeks. Scientists and engineers at Rolls-Royce are working on the Micro-Reactor programme to develop technology that will provide the power needed for humans to live and work on the Moon. All space missions depend on a power source, to support systems for communications, life-support and science experiments. The Agency will provide almost £3 million in funding for the project to deliver a model of the lunar reactor. Rolls-Royce plans to have the model ready to send to the moon by 2029. Like many space program advances, Rolls-Royce envisions terrestrial uses for the new technology. "This funding will bring us further down the road in making the Micro-Reactor a reality, with the technology bringing immense benefits for both space and Earth. The technology will deliver the capability to support commercial and defence use cases alongside providing a solution to decarbonize industry and provide clean, safe, and reliable energy," said Abi Clayton, Director of Future Programmes for Rolls-Royce.

Elon Musk's Twitter faces another challenge as its source code leaks online.



Social media platform Twitter has been hit with another obstacle after excerpts of its source code were leaked online, according to court documents. The documents, filed with the U.S. District Court for the Northern District of California, reveal that Twitter issued a subpoena to a software collaboration platform GitHub after a user shared snippets of its source code without permission. The username of the person who shared the data was "FreeSpeechEnthusiast".

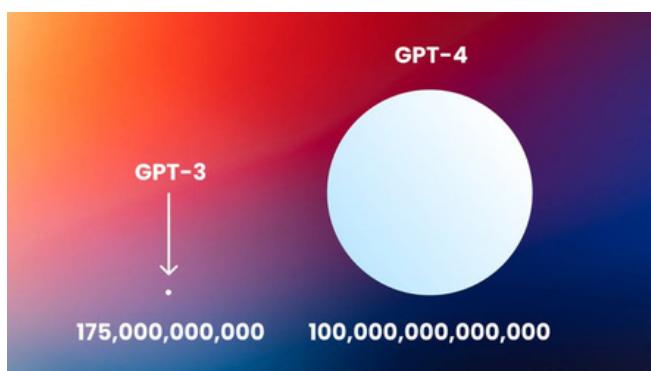
According to a report by CNBC, GitHub shared some details about the leaked code after being requested by concerned authorities (DMCA). The leaked code includes "proprietary source code for Twitter's platform and internal tools." It is not clear whether the source code used to recommend tweets is part of the leak.

Elon Musk recently also acknowledged that Twitter's value stands at almost half of what he bought it for. A recent report suggested that Twitter's valuation sits at around \$20 billion. Musk has been trying to increase revenue by adding a Twitter Blue subscription service and by offering advertisers more benefits.

GPT-4: A New Milestone for Artificial Intelligence



OpenAI, the artificial intelligence research lab, has launched GPT-4, the latest version of its ground breaking language model that powers ChatGPT and other applications. The company says the new model is more creative, collaborative, accurate, and aligned than ever before. GPT-4 is a "multimodal" model, which means it can take images as well as text as inputs, letting users ask questions about pictures or generate captions for them.



The new model can also handle complex tasks such as writing songs, screenplays, or tax returns. OpenAI has partnered with several companies to offer GPT-4-powered services, such as language learning with Duolingo, customer support with Stripe, and financial analysis with Morgan Stanley. However, OpenAI also warns that GPT-4 still suffers from some limitations,

YUGAM 2023

EVENT NAME : CIRCUTIRIX



DATE : 02-03-2023

ORGANIZED BY : Janani J -21BEC052
Sakthika -21BEC123

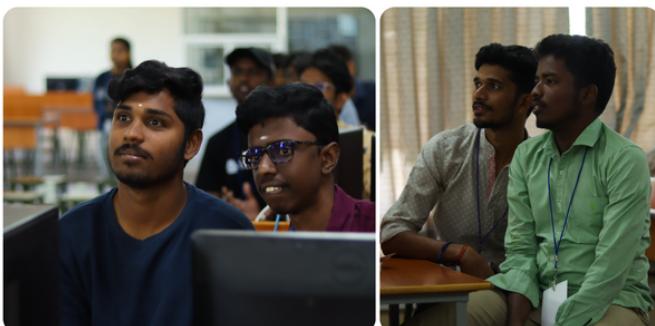
EVENT VENUE : Communication Lab
(C - 302) , ECE Department.



OUTCOME OF THE EVENT:

The participants brushed up their cognitive technical skill by using Tinker Cad . This is place to show the talent in field of circuits. They can also know about the component and their description.

EVENT NAME : REVERSE ENGINEERING



DATE : 03-03-2023

ORGANIZED BY : Asvika A P 21BEC021
Saravanan M 21BEC132

EVENT VENUE : C-303,
ECE Department



Outcome of the event:

The event helped the participants to test their basic skills in Electronics, and the participants were able to develop an embedded solution in the given period of time for a problem statement given to them, which they can work on as their future projects

EVENT NAME : EMBEDDED PROGRAMMING CHALLENGE



DATE : 03-03-2023

ORGANIZED BY : Akash S 20BEC008
Aparna V 20BEC012
Sreenithi S 21BEC150

EVENT VENUE : COE Lab,
ECE Department



Outcome of the event:

The event helped the participants to test their basic skills in Electronics, and the participants were able to develop an embedded solution in the given period of time for a problem statement given to them, which they can work on as their future projects.

EVENT NAME : NATIONAL E-MICROMOUSE CHALLENGE



DATE : 03-03-2023

ORGANIZED BY : Sanjeev Kumar S 21BEC127

EVENT VENUE : ECE Lobby,
ECE Department



Outcome of the event:

This event promoted a healthy competition between the teams, and which motivated them for a better result. This also increases their knowledge and experience in the embedded and robotics field. For viewers this event paved way for excitement on the tech developments.

EVENT NAME : Mysterio – “Decode to Discover”



DATE : 04-03-2023

ORGANIZED BY : Tharun raj G -20BEC152
Gowtham G 21BEC039
Swetha S 21BEC162

EVENT VENUE : C-303,
ECE Department



Outcome of the event:

The event helped the participants to test their basic skills in cryptography. This event makes the participants to increase critical thinking skills and team spirit. The teams will not only compete among them but also with time.

EVENT NAME : TECH EXPO



DATE : 04-03-2023

ORGANIZED BY : Pratigya S -20BEC103

EVENT VENUE : Mahatma Gandhi Central Library, Admin Block, KCT



Outcome of the event:

The event helped the participants to test their basic skills in Electronics, and the participants were able to develop an embedded solution in the given period of time for a problem statement given to them, which they can work on as their future projects.

WORKSHOP NAME : 5G COMMUNICATION



DATE : 27-02-2023

ORGANIZED BY : Navipreethi S - 21BEC084

EVENT VENUE : C-305,
ECE Department

Outcome of the workshop:

Increased understanding of 5G technology: Workshops can be an effective way to educate participants on the technical aspects of 5G, including its capabilities and limitations. This could lead to better-informed decisions and strategies regarding the deployment of 5G networks.

WORKSHOP NAME : ADVANCED DRIVER ASSISTANCE SYSTEM



DATE : 28-02-2023

ORGANIZED BY : Sibi Varshith S - 21BEC141

EVENT VENUE : C-305,
ECE Department

Outcome of the event:

The workshop can teach participants how ADAS systems function, including how sensors gather data and how algorithms process that data to provide alerts and assistance to the driver and also to develop practical ADAS applications, including lane departure warning systems, collision avoidance systems, and adaptive cruise control.

WORKSHOP NAME : IOT WITH RASPBERRY PI



DATE : 27-02-2023 and 28-03-2023

ORGANIZED BY : Hariprasanna A K-20BEC035

EVENT VENUE : COE Lab,
ECE Department

Outcome of the workshop:

Raspberry Pi is an excellent tool to learn about IoT. By working with Raspberry Pi, you can gain a better understanding of IoT architecture, how IoT devices communicate with each other, and how to develop IoT applications. Raspberry Pi provides a practical, hands-on learning experience. the participants experienced experiment with various sensors, actuators, and other components to create real-world IoT applications.

WORKSHOP NAME : AUTOMOTIVE EMBEDDED SYSTEM



DATE : 28-02-2023

ORGANIZED BY : Rinusha B - 20BEC117

EVENT VENUE : C-303,
ECE Department

Outcome of the event:

The participants were able to gain knowledge on electronic systems embedded in automotive vehicle and their functionalities . They were able to develop their ability to understand the fundamentals of vehicle systems , regulations, various components of a vehicle and explain its functions. And finally they were able to gain fundamental knowledge to develop electronic controls for automotive subsystems.

WORKSHOP NAME : HUMAN MACHINE INTERFACE



DATE : 01-03-2023

ORGANIZED BY : Linganiveth S G 20BEC065

EVENT VENUE : C-305,
ECE Department



Outcome of the workshop:

HMI protocols and their applications.
Optimize an industrial process.
HMI development for automobile applications.
Various graphic tools to create UI.
HMI Architecture & subcomponents.
Develop simple HMI using Android and web app development tools.
HMI testing and validation.

SPECIAL THANKS TO VOLUNTEERS

Saran S 21BEC131

Riyas S 21BEC114

Madhavan T 21BEC068

Nishanthan M 21BEC089

Mohammed Thahir I 21BEC209

Shamsundar S 21BEC135

Santhosh Kumar V 21BEC129

Abishek M 21BEC007

Rohith V 21BEC117

Bavithra R 21BEC027

Tharun R B 21BEC166

Neshika R 21BEC085

Singaram S 21BEC143

Kavee Geeth R S 21BEC207

Thendaarnika G S 21BEC168

Nithish S 21BEC092

Completing 5 workshops and 6 events successfully with the help of department association members is an impressive accomplishment. Their support provided necessary resources and guidance, promoting learning and development for participants. Networking and collaboration opportunities were also gained, reflecting commitment and dedication.

DA ACTIVITIES

THEME	: Squander Hunt
DATE	: 08/03/2023
DAY	: Wednesday
VENUE	: C208, ECE Department
ORGANIZER	: Bavithra R



Participants

- Janani J 21BEC052
- Pradeep R (Guest)
- Sri Sreeatha C.S. 19BEC078
- Aishwarya Lakshmi S.S. 20BEC051
- Anusha Ap 21BEC051
- Aswath V. 20BEC056
- Gokulamirthy K. 20BEC038
- Hariharan A. 20BEC034
- Harijewarao A.K. 20BEC035
- Hariharan D. Meeting point
- Jagadeeshwar S. 20BEC040

Create new repo
✓ main will be default branch
✓ Create new file index.html

THEME	: Placement Series Season 2
DATE	: 18/03/2023
DAY	: Saturday
PLATFORM	: MS Teams
ORGANIZER	: Janani J

ZOHO – APTITUDE TEST

- Aptitude test
- Programming test – c, c++ type programs with increment and decrement problems

```

public class IncrementDecrementQuiz {
    public static void main(String[] args) {
        int i = 1;
        i = i++ + i;
        System.out.println(i);
    }
}

public class IncrementDecrementQuiz {
    public static void main(String[] args) {
        int i = 1;
        i = i++ - (i - 1) + i;
        System.out.println("i=" + i);
        System.out.println("i=" + i);
        System.out.println("i=" + i);
    }
}

```

THEME	: Fantastic 40 session-6
DATE	: 17/03/2023
DAY	: Friday
PLATFORM	: MS teams
ORGANIZER	: Navipreethi S

THEME	: Fantastic 40 session -7 soliton
DATE	: 20/03/2023
DAY	: Monday
PLATFORM	: MS Teams
ORGANIZER	: Asvika A P

Soliton
Celebrating 25 years

SOLITON TECHNOLOGIES

PRE - PLACEMENT TALK

DA ACTIVITIES

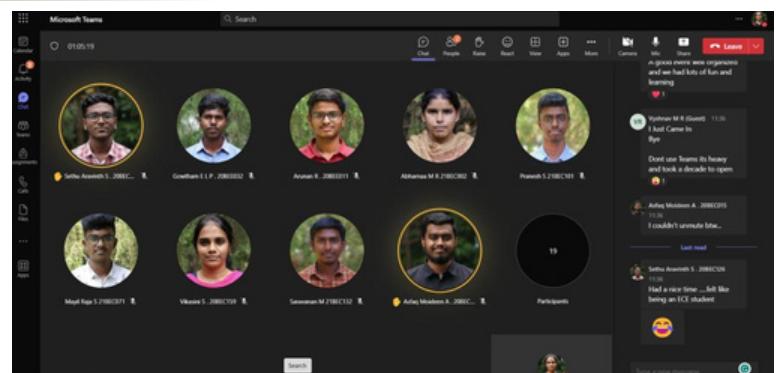
THEME : Thedal session 3
 DATE : 21/03/2023
 DAY : Tuesday
 VENUE : Instagram
 ORGANIZER : Sakthika P



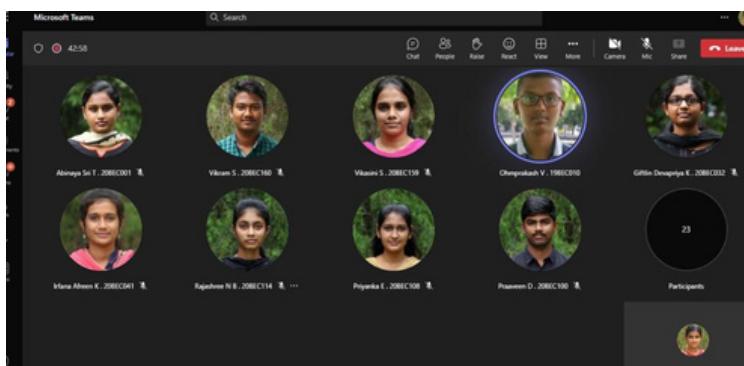
GREENOMANIA

THEME : Plant a sapling
 DATE : 22/03/2023
 DAY : Wednesday
 PLATFORM : Instagram
 ORGANIZER : Nishanthan M

THEME : Circuit challenge
 DATE : 22/03/2023
 DAY : Wednesday
 PLATFORM : MS teams
 ORGANIZER : Aparna V

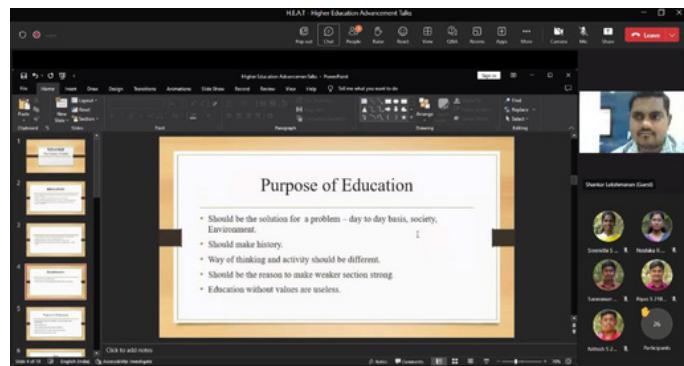


THEME : Fantastic 40 session 8
 DATE : 25/03/2023
 DAY : Saturday
 PLATFORM : MS teams
 ORGANIZER : Navipreethi S



DA ACTIVITIES

THEME : H.E.A.T(Higher Education Advancement Talks) - Session 1
DATE : 25/03/2023
DAY : Saturday
PLATFORM : MS Teams
ORGANIZER : Sibi Varshith S



LATCHES—THE MEMORY DEVICES

LATCHES — THE MEMORY DEVICES

medium.com/@da.ece

THEME : Weekly blog 2
DATE : 26/03/2023
DAY : Sunday
PLATFORM : Medium Social Media
ORGANIZER : Saravanan M

THEME : Weekly blog 1
DATE : 15/03/2023
DAY : Wednesday
PLATFORM : Medium Social Media
ORGANIZER : Sibi Varshith S

Wired Communication

Wired Communication

medium.com/@da.ece



THEME : Entrepreneurship Development cell [EDC] Session 1
DATE : 30/03/2023
DAY : Thursday
PLATFORM : MS teams
ORGANIZER : Pratigya S . 20BEC103

DA ACTIVITIES

THEME : Debate on "Well Being"
 DATE : 31/03/2023
 DAY : Friday
 VENUE : C208,
 ECE Department
 ORGANIZER : Thendaarnika G S



ACTIVE MEMBERS - MARCH 2023



SARAVANAN M
21BEC132
Magazine Team



NAVIPREETHI S
21BEC084
Placement Team



NISHANTHAN M
21BEC089
Media Team



SHARNI J
21BEC136
Media Team



VARSHINI M
21BEC176
Media Team



SAKTHIKA P
21BEC123
Documentation Team





APTITUDE QUESTIONS

Q1) By working 5 hours/day, 4 waiters can serve 250 dishes in 8 days. 2 waiters would require how many hours/day to serve 500 dishes in 20 days?

- a) 8 hrs/day
- b) 6 hrs/day
- c) 7 hrs/day
- d) 9 hrs/day

Q2) Arun, Kartik and Mira can do a work in 90, 30 and 45 days respectively. If they work together, in how many days will they complete work?

- a) 15
- b) 10
- c) 20
- d) 25

Q3) If S were twice as old as he is, he would be 40 years older than J. J is 10 years younger than S. How old is S?

- a) 20 yrs
- b) 30 yrs
- c) 40 yrs
- d) 50 yrs

ANSWER:

- 3. option (b)
- 2. option (a)
- 1. option (a)

To get placed in a Public Sector Undertaking (PSU) or government-backed research organization as an Electrical Engineer in India, you can follow the below steps:

1. Prepare for GATE Exam
2. Apply for GATE Exam
3. Appear for GATE Exam
4. Check the PSU recruitment notifications
5. Apply for the PSU/Government research organization recruitment
6. Prepare for the interview
7. Get selected

EDITORS :

1. Tharun Raj G
2. Saravanan M
3. Sibi Varshith S