

DEPARTMENT OF EEE  
PRESENTS

# FULGUR

THE HALF - YEARLY DEPARTMENT NEWSLETTER

Volume 7 issue 2  
January 2024  
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NPSBCET

## **VISION OF THE INSTITUTE**

To be a globally recognized academic institution and thereby contribute to technological and socio-economic development of the society.

## **MISSION OF THE INSTITUTE**

1. To develop the needed resources and infrastructure, and to establish a conducive ambience for the teaching -learning process.
2. To engage committed members of faculty who will infuse subject knowledge with latest teaching pedagogies.
3. To Ignite the desire for higher learning, research and entrepreneurship and equip them to face the global challenges.
4. To engage the alumni professionals as productive partners with the current students to help to enrich and enhance their student life.

## **VISION OF THE DEPARTMENT**

To produce globally competent Electrical and Electronics Engineers who can cater to the contemporary needs of the Industry and Society.

## **MISSION OF THE DEPARTMENT**

- M1: To provide a good infrastructure and serene environment to cater the curriculum requirements of Electrical and Electronics Engineering.
- M2: To motivate the students and faculty towards research activities in association with industries.
- M3: To provide a conducive environment for students to enhance their co curricular, soft skills and ethical values for their career development.
- M4: To stimulate continuing education for creating quality engineers towards sustainable improvement in the society.

## **PROGRAM EDUCATIONAL OBJECTIVES**

- PEO 1: Procure optimum solution for Electrical Engineering problems in order to cater a successful professional career.
- PEO 2: Demonstrate creativity in the engineering practices including entrepreneurial and collaborative ventures with strategic thinking, planning and execution for lifelong learning.
- PEO 3: Exhibit to communicate effectively, recognize and incorporate societal needs and constraints in their professional endeavours and practice the profession with high regard to legal and ethical responsibilities.

## **PROGRAM SPECIFIC OUTCOMES**

- PSO 1: Shall have Potential to analyze, design, synthesize and provide technical solutions in the field of Power generation, distribution, renewable energy systems and Embedded Systems.
- PSO2: Shall exhibit leadership skills, pursue entrepreneurship and contribute in the field of Electrical and Electronics Engineering.

# College Achieves Autonomous Status: A New Era of Academic Excellence

We are thrilled to announce that our Institution has been granted autonomous status by the University Grants Commission (UGC) and Anna University for a period of 10 years effective from 2023 - 2024 academic year onwards. . This milestone marks a significant step towards academic excellence and innovation.

The autonomous status approval enables us to design our own curriculum, set our own evaluation system, and have more flexibility in our academic programs.

This achievement is a testament to our institution's commitment to quality education and research. We look forward to this new chapter of growth and development.



## Faculty Publications:

Venkatasubramanian R Published a paper titled “Discussion and Application of Virtual Garment Design Technology” in the Proceedings of 2023 Second International Conference On Smart Technologies For Smart Nation (SmartTechCon) during 18-19 Aug. 2023.

Venkatasubramanian R Published a paper titled “Privacy-Preserving Data Mining Methods for Sensitive Information” in the Proceedings of 2023 3rd International Conference on Technological Advancements in Computational Sciences (ICTACS) during 1-3 Nov. 2023.

Devi M published a paper titled “Design And Implementation Of A Smart Home Energy Management System Using Iot And Machine Learning” in E3S Web of Conferences , ICSERET during June 2023.

Venkatasubramanian R Published a paper titled “Monitoring of Photovoltaic Fed Induction Motor Control using IoT ” in the Proceedings of 2023 2nd International Conference on Edge Computing and Applications (ICECAA) during 19-21 July 2023.

Venkatasubramanian R Published a paper titled “E-waste infused bituminous mix for flexible pavements ” in the Proceedings of Materials today, May, 2023.

Ananthi S Published a paper titled “Experimental investigation on foam concrete as a filler material in glass fiber reinforced gypsum panels ” in the Proceedings of Materials today, June, 2023.

Venkatasubramanian R Published a paper titled “Monitoring of Photovoltaic Fed Induction Motor Control using IoT ” in the Proceedings of 2023 2nd International Conference on Edge Computing and Applications (ICECAA) during 19-21 July 2023.

## Conference/FDP/Workshop:

Dr.R.VenkataSubramanian attended 5 days FDP on “Recent Trends in Electric Vehicle technology” from 19.06.23- 23.06.23. Organized by Nadimpillai,Satyanarayana Raju Institute of Technology, Visakhapatnam.



Ananthi.S attended one week online FDP on “VLSI & Chip Design” from 10.07.23 to 14.07.23 organized by the Department of Electronics and Communication Engineering in association with IETE, Mohammed Sathak A.J.College of Engineering, Chennai.

## Student Achievements:

M.Lakshmi Narayanan, V.Priyanka, Sahl Dhanaji Zimal, R.Robinson, S.Vignesh and Suha Kauser.S.A participated in Regional Meet - Yukti Project Exhibition , IIC , MoE's Innovation Cell organized by B.S.Abdur Rahman Crescent Institute of Science & Technology, Chennai on 01.12.23. They presented the two projects titled "Sensory Assistant System for Visually Impaired People " and "Maximum Power extraction from PV panel using AT328 Microcontroller" during the meet



Based on their performance in the mentoring and pitching round conducted in the regional meet and reviewed by the panels, we are delighted to inform you that out of 779 innovations gone through the pitching process, 370 are declared as finalists of the "YUKTI Innovation Challenge '2023" and the above two teams were two among the finalists

## Student Achievements:

Sahil Dhanaji Zimal, Robinson.R & S.Vignesh of IV year EEE students presented a paper titled “Sensory Assistant System for Visually Impaired People” at Crossroad’23 - National Conference on 06.10.23 held at Dr.M.G.R Educational and Research Institute, Chennai.

J.Ashok Kumar , S.Sathish & S.Jayakumar of IV year EEE students presented a paper titled “Comparison of Lidar and Ultrasonic sensor for Obstacle Detection System in Automobiles.” at Crossroad’23 - National Conference on 06.10.23 held at Dr.M.G.R Educational and Research Institute, Chennai



P.Ambedkar, K.Sivaramakrishnan & V.Dinesh of IV year EEE students presented a paper titled “Arduino Intruder Security alert System.” at Crossroad’23 - National Conference on 06.10.23 held at Dr.M.G.R Educational and Research Institute, Chennai

K.Vikraman,A.Vijaykumar & Gokulakrishnan.R of IV year EEE students presented a paper titled “Maximum Power extraction from PV panel using AT328 Microcontroller.” at Crossroad’23 - National Conference on 06.10.23 held at Dr.M.G.R Educational and Research .

## Students participations:

Around 10 students of III year EEE visited ISRO , Sriharikotta during the Launching Session of“Adithya L1” on September 2,2023.



All the final year students undertook the Internship on the different domains like “Artificial Intelligence Tools of E-Vehicles”, "Embedded Tools for Electrical Drive Systems” for the duration of 15 days at Future Focus, Chennai. They got to know more the space equipment used in the mission of Adthiya L1.

Around 6 students from III year EEE undertook the Internship on “Industrial Automation Technologies” at L C Automation Private Limited, Chennai from 11.07.23 to 27.07.23.

## Events Organized:

### Certificate Course:



Certificate Course on “Mastering Virtual Instrumentation from Theory to Practice “ has been conducted on weekends from 27.08.2022 to 27.09.22 for a period of 30 hours in association with Retech Solutions Pvt.Ltd, Chennai.Ms.R.Revathi, AP/EEE coordinated the event. Around 30 students from II year, III year and Final year attended the course and learnt about the simulation of circuits using Labview.

### FDP:

The Faculty Development Program has been Organized on “Electrical Drives” from 04/12/2023 to 08/12/2023 during the winter vacation of the academic year 2023-2024. Around 30 participants including internal faculty members have attended the program and gained knowledge on Conventional and Solid state control of DC & AC Drives.

### WORKSHOP:

Workshop on “Electrical Systems in Large Industry” was organized by the Department of Electrical and Electronics Engineering in association with ISTE on 18.10.23. Mr.Vinay Kumar Prasad, General Manager, Technical Department, National Small Scale Industries Corporation Ltd, Chennai was the resource person.



Ms.S.Ananthi, AP/EEE coordinated the programme. Around 45 students participated in the event and gained knowledge about developments in automation and control in Electrical systems in large industries.



## INDUSTRIAL VISIT:

### TVS TRAINING SERVICE:

III year EEE students visited “TVS Training and Services” Ambattur Industrial Estate, Chennai, on 23.08.23.

The students learnt about the Working of Electric Vehicle, Types of Welding and Different models of two wheeler and four wheelers based on recent technologies.



7 8-D, Chennai Tiruvallur High Rd, Sai Nagar, Ambattur Industrial Estate, Chennai, Tamil Nadu 600058, India

### THERMAL POWER PLANT:

Around 50 students and three faculty members visited “Ennore Thermal Power Station”, Chennai on 10.11.2023, During the visit the students gained knowledge about Power generation process, Operational Challenges and the functioning of turbines and generators.



### Graduate Employability Program

Graduate Employability Program has been arranged for III year students in Japanese .

Training for TNPSC examination, Course on Digital Marketing, International English Language Testing System (IELTS) Training.



# Festival Celebrations

## Onam Celebration:

Onam Celebrations were held on 29.08.24 . The students of EEE department actively participated in Inter department rangoli competition and cultural. It is favorite festival in a Kerala. Pookalam, Onasadya, Vallamkali, Pulikali, Cultural Performances.



The festival is a vibrant celebration that includes a variety of activities such as traditional dance forms, boat races, floral arrangements (Pookalam), and a grand feast known as Onam Sadya.

## Navaratri Celebration:

Navaratri celebrations were held in the college premises from October 15th to October 23rd , 2023. During the dussehra week , department of EEE carried out the rituals on October 16,2023.



## Teacher's day:

Teachers's day Celebration was held on 08.09.2023 , A debate was conducted on the title “ ஆசிரியப் பணியின் மாண்பு பெரிதும் வெளிப்படுவது மாணவர்களின் பண்பை மேம்படுத்தலிலா? மாணவர்களின் அறிவை வளர்ப்பதிலா?”, M.Devi, AP participated in the debate and represented the team ஆசிரியப் பணியின் மாண்பு பெரிதும் வெளிப்படுவது மாணவர்களின் அறிவை வளர்ப்பதிலா?.



## ACROSS:

1 Another name for gas reply or sudden pressure reply

2 A measure of total opposition to current (9)

4 An electrical concept associated with putting metal close to energized line (9)

5 What loads are said to be if they can be disconnection during short periods of system disturbances (9)

6 A mechanical switching device to connect busbars of two sections (13)

t## The period during which a generating unit is out of service (6)

t## Used where the motor switching during is a contactor to provide short circuit protection (4)

t## The rate at which energy is transferred (5)

t## The range of frequencies that a single contains or circuit can handle (8)

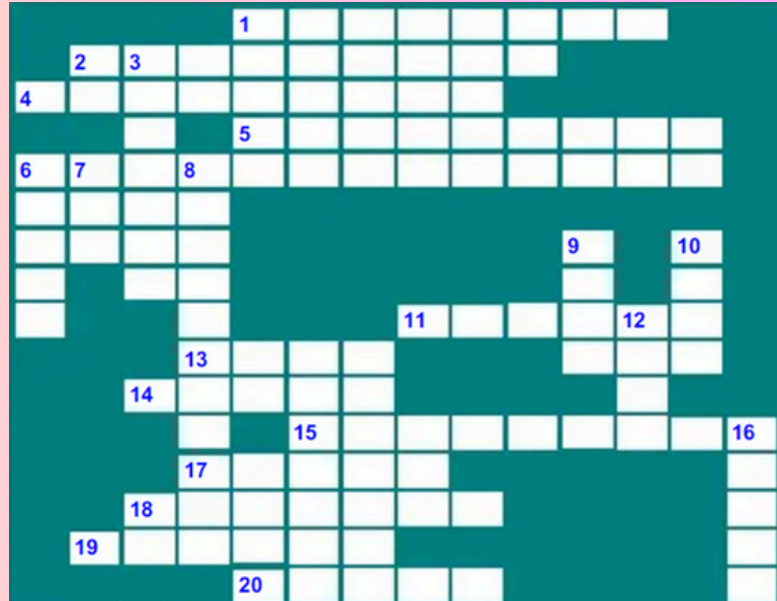
t## Has a function opposite to that of a generator (5)

t## Convert ac to dc power (7)

t## A volumetric unit of measure of crude and petroleum products (6)

t## The Electrical genius best known for inventing alternating current (5)

t## Sinusoidal voltage or current having frequencies that are whole multiples of the power frequency at which the supply system is designed to operate (9)



## DOWN:

3 He is associated with the discovery of radio (7)

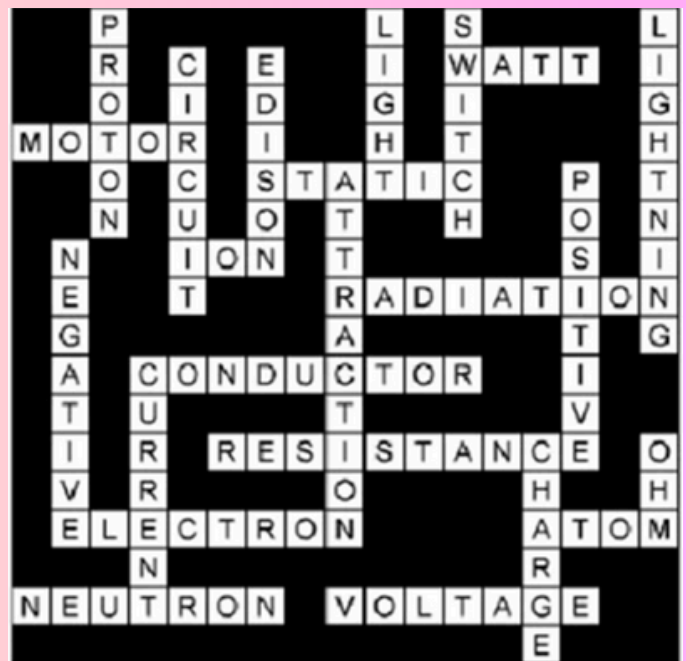
2 Physiologically dangerous current (5)

7 A device designated to restart motors (3)

8 A type of equipments that is associated distribution of energy (11)

9 Designation for a type of transformer cooling (4)

Answers of crossword published in July 2023 issue:



## Interesting Tech facts:

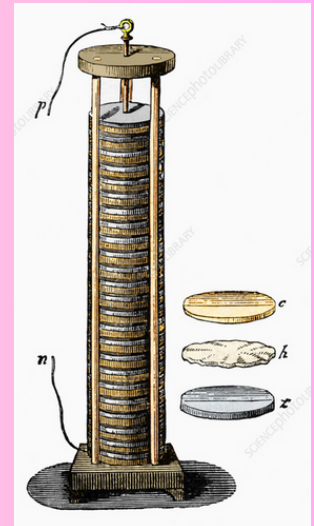
Mozilla Firefox's logo is a red panda and not a fox. You might not think it makes sense with the word "fox" being in the name but a very little known fact is that the red panda's nickname is "firefox."



The average cost to develop a high-quality app ranges from \$100,000 to \$500,000.

The most downloaded app in the world is Instagram about 166 million downloads.

in 1799, Alessandro Volta developed the first electrical battery. This battery, known as the Voltaic Cell, consisted of two plates of different metals immersed in a chemical solution



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