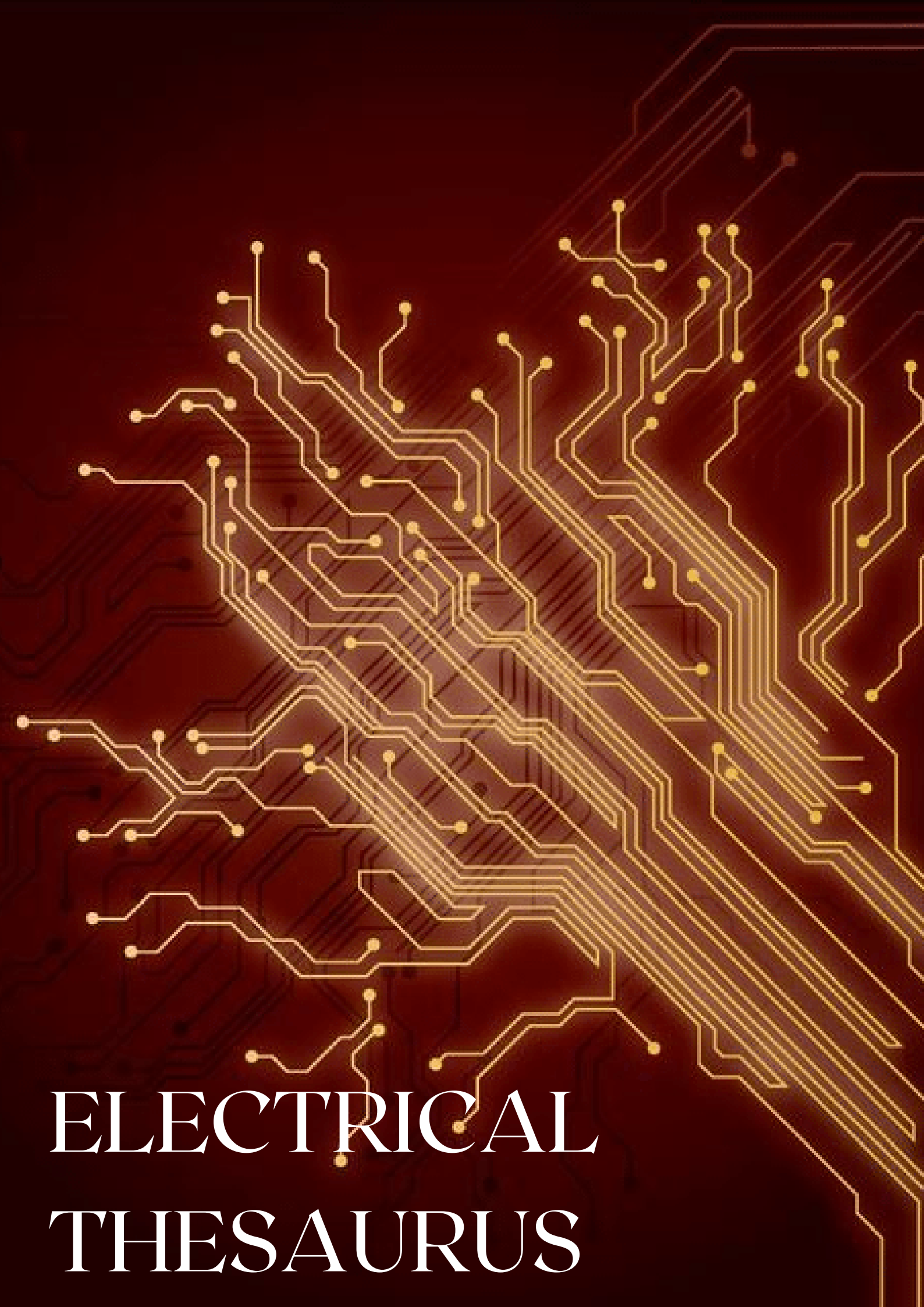


ELECTRICAL THESAURUS

INDEX

EDITOR'S *note*

Hello readers,

It gives us immense pleasure in presenting to you the issue of "ELECTRICAL THESAURUS" magazine, on behalf of the department of EEE. the experience of being an editor to this incredible magazine has been as exciting and entertaining as it was enlightening through the process of weaving this magazine together, we had the experience of putting together the content, and ideas that came from various informative and creative minds. Rather than a plain ticking off the to-do list journey, this was an opportunity for us to imbibe the art of interacting and collaborating with our team and others who have made this possible. in the same thought we hope that as you read this magazine appreciating the work of our team, you would also be able to participate in this journey of imbibing the information and ideas expressed by the contributors!

It was both exciting and an exigent point being the editors of the ELECTRICAL THESAURUS magazine we had the opportunity to interact with various informative and creative minds this magazine is the culmination of the incredible ideas and information from each of its contributors.

Live as if you were to die tomorrow. Learn as if you

COLLEGE VISION MISSION

VISION OF NSCET

Place for Technology Revolution

MISSION OF NSCET

- Promote and undertake all-inclusive developments. (Vision)
- Develop high-quality technical education with academic excellence and innovative research with ethics. (TLP)
- Create an atmosphere where the teacher enjoys facilitation and learners (students) enjoy learning through Foster innovation. (PEO & PSO)
- Collaborate with industry and academics to meet the changing needs of society. (PO Attainment)

ABOUT THE DEPARTMENT

The department of Electrical and Electronics Engineering was established in the year 2014. It offers an undergraduate program in Electrical & Electronics Engineering. The Electrical and Electronics Engineering Department aims to enable students excellence in the field of Electrical Engineering. The department is committed to the advancement of the frontiers of knowledge in Electrical Engineering and to provide the students with a stimulating and rewarding learning experience. The department has a well-qualified experienced and dedicated team of faculty members with specialization in various fields like Electrical Machines, Power Systems, Power Electronics, Instrumentation, and Control Engineering. The department has a laboratory with modern infrastructure and high-tech equipment. Students are given wide practical exposure and hands-on training in various domains during laboratory sessions. The department organizes guest lectures, workshops, seminars, conferences, technical contests, etc., to display student's activities in various co-curricular activities.

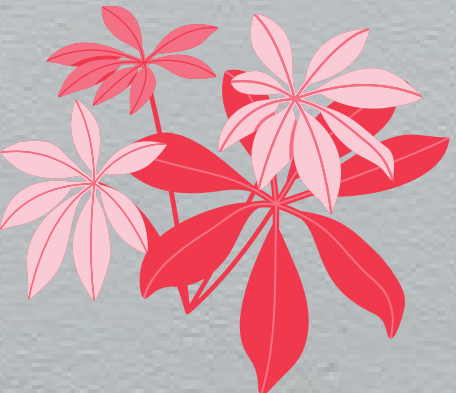
DEPARTMENT VISION MISSION

VISION

Emerge as a valuable global resource for power sector and consumer electronics

MISSION

1. Establish the cognitive and affective domains of students through appropriate teaching-learning process and industry-institute interactions.
2. Execute projects with integrity and ethics keeping pace with the latest trends in power electronics industry.
3. Develop energy technology park to handle various sustainability challenges of society.
4. Upgrade the knowledge and skills of faculty through quality improvement programs.



From the HOD desk

Good day, everybody.

Greetings!!! From the department of Electrical and Electronics Engineering of NSCET. The department of EEE is one of the oldest engineering departments which Enlightens any other engineering discipline. Can you think of a minute without ELECTRICAL POWER? NO, We can't. The cross country power transmission lines, house-hold lights, and motors to name the very few are the best examples illustrating this. We, the electrical engineers have created a great infrastructure in which the world runs on top of it. We will also create the future. WIRELESS POWER TRANSFER, SOLAR POWER, ELECTRICAL VEHICLES, to name a few. The future is OURs.

We dedicate E-FANZINE, to the students' fraternity of EEE department of our institution. Students can actively do a variety of activities which takes them towards becoming an industry leader. All of these activities can be documented in this newsletter. This newsletter is monthly where any student and faculty can contribute to it. I wish all the students and faculty make full use of it and a grand success.

M.Arivalagan
HOD/EEE.

Invited Article

BY,
Mrs.K.Malar, AP/EEE.,

WHY MEDITATION?

We all have a question like why we need to do meditation. Lots of people have a hazy or inaccurate picture of what meditation is. If we have heard any of the ten responses listed, we know there is some misinformation floating around about meditation. It is not so. Really speaking with meditation many positive outcomes are there. It improves our physical, mental, emotional, and spiritual being. I would like to share a gist on this.

Physical benefits of meditation:

Meditation improves physical health by boosting the immune functions, regulating hormonal discharge, and decreasing cellular inflammation.

Some researchers found that long-term meditators had more disease-fighting chemicals in their bodies than non-meditators or beginners did. However many people do not realize that having a daily practice can also really improve our appearance too.

- Meditation can be good for your skin and several studies have shown that meditation can significantly improve a range of skin conditions

- Having a daily meditation practice may just help you to keep your body at a healthy weight.

Mental Benefits of meditation:

Meditation can give you a sense of calm, peace, and balance. And these benefits don't end when your meditation session ends. Meditation can help carry you more calmly through your day and may help you manage symptoms of certain medical conditions.

Emotional Benefits of Meditation:

When we are immersed in a state of meditation, our emotions are also brought into balance. All the weaknesses which hinder the expression of pure and sincere sentiments, such as greed, insecurity, jealousy, etc. are reduced when the joy of meditation is felt. This joy is absolute, devoid of all duality, and becomes the motivation of our emancipation.

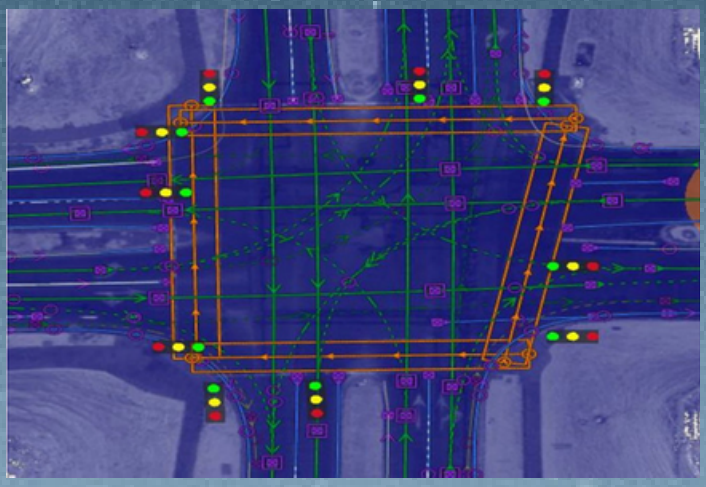
Benefits of meditation:

In meditation, we melt into the Primordial being. This experience is the next stage in the evolution of an ordinary human being's awareness: that person is said to be born again or realized. This means that our spiritual essence, which had been hidden until then, becomes reality. Our union with the whole will become stronger and stronger as we go along and that is, without doubt, the most precious benefit that Kundalini awakening can bring us. This middle way that is established within us day after day by our kundalini will shower blessings of all sorts upon us, not only of a physical, emotional or psychological nature, but also material, social and professional benefits.

Ms.M.Gayathri AP/EEE

Challenges that self-driving cars Still have to overcome

1) Creating (and maintaining) maps for self-driving cars is difficult to work First, a quick clarification: Lots of car companies, from GM to BMW to Tesla to Uber, are working on various species of autonomous technology. Some of this is partial autonomy, as with Honda's Civic LX, a car now on the market that can stay within its lane. But I'm mostly going to focus on full autonomy — cars that don't need drivers at all. And right now, Google seems to be the furthest along with that technology: Google's self-driving cars work by relying on a combination of detailed pre-made maps as well as sensors that "see" obstacles on the road in real-time. Both systems are crucial and they work in tandem.



This is a time-intensive process, but Google thinks it's the best way forward. The idea is that building the map ahead of time can free up processing power for the car's software to be "alert" while puttering around autonomously. The car uses the map as a reference and then deploys its sensors to look out for other vehicles, pedestrians, as well as any new objects that weren't on the map, such as unexpected signs or construction.

Before Google can test a self-driving car in any new city or town, its employees first manually drive the vehicles all over the streets and build a rich, detailed 3-D map of the area using the rotating Lidar camera on the car's roof. The camera sends out laser pulses to gauge its surroundings, and the people on Google's mapping team then pore over the data to categorize different features such as intersections, driveways, or fire hydrants.

Olson points out that relying on this mapping system will pose some major challenges. Right now, Google has only built detailed 3-D maps for a relatively limited number of test areas, like Mountain View. For self-driving cars to go mainstream, Google would have to build and maintain detailed maps all over the country — across 4 million miles of public roads — and update them constantly. After all, roads change a lot: Researchers at Oxford University recently tracked a single 6-mile stretch of road in England over the course of a year and found its features were constantly shifting. One rotary along the path was moved three times.

2) Driving requires many complex social interactions — which are still tough for robots

A far more difficult hurdle, meanwhile, is the fact that driving is an intensely social process that frequently involves intricate interactions with other drivers, cyclists, and pedestrians. In many of those situations, humans rely on generalized intelligence and common sense that robots still very much lack Much of the testing that Google has been doing over the years has involved "training" the cars' software to recognize various thorny situations that pop up on the roads.

3) Bad weather makes everything trickier

Compounding these challenges is the fact that weather still poses a major challenge for self-driving vehicles. Much like our eyes, car sensors don't work as well in fog or rain or snow. What's more, companies are currently testing cars in locations with benign climates, like Mountain View, California — and not, say, up in the Colorado Rockies.

Olson classifies this as a real, but lesser, hurdle. "Weather adds to the difficulty, but it's not a fundamental challenge," he says. "Also, even if you had a car that only worked in fair weather, that's still enormously valuable. I suspect it might take longer to overcome weather challenges, but I don't think this will derail the technology."

Urmson took a similar view in his SXSW talk: "This technology is almost certainly going to come out incrementally," he said. "We imagine we are going to find places where the weather is good, where the roads are easy to drive — the technology might come there first. And then once we have confidence with that, we will move to more challenging locations."

4) We may have to design regulations before we know how safe self-driving cars really are

Another big obstacle for self-driving cars isn't technical — it's political. Before self-driving cars can hit the roads, regulators are going to have to approve them for use. One thing they're going to want to ask is: How safe are these things, anyway?

And here's the tricky part: We probably won't know! Kalra laid this all out in a recent paper for RAND. As noted above, drivers in the United States currently get into fatal accidents at a rate of about one for every 100 million miles driven. Ideally, we'd want self-driving cars to be at least that safe. But it's unlikely we'll be able to prove that any time soon.

Google only drove its cars 1.3 million miles total between 2009 and 2015 — not nearly enough to draw rigorous statistical conclusions about safety. It would take many decades to drive the hundreds and hundreds of millions of miles needed to prove safety.

"My hunch is that by the time automakers are ready to sell these things, we still won't know how safe they are," says Kalra. "We're going to have to make these decisions under uncertainty."

5) Cybersecurity will likely be an issue — though a surmountable one

"Another issue is cybersecurity," says Kalra. "How do you make sure these cars can't be hacked? As vehicles get smarter and more connected, there are more ways to get into them and disrupt what they're doing."

This shouldn't be impossible to fix. Software companies have been dealing with this issue for a long time. But as Vox's Timothy Lee has written, it will likely require a culture change in the auto industry, which hasn't traditionally worried much about cybersecurity issues.

Olson raises a related issue: Many car enthusiasts already modify their own vehicles to improve performance. What happens if they do this for self-driving cars and inadvertently compromise the computers' decision-making ability? "Just as an example, someone puts on oversized wheels that distorts' the car's sense of how fast it's going," he notes. "It's hard to stop anyone from doing that."

Olson points out this could be a particular challenge if the auto industry tries to develop systems that enable different vehicles to talk to each other on the road (say, to make merging easier). "The whole premise of using V2V [vehicle-to-vehicle communication] for safety is that if you get a message to slam on the brakes, you better be able to trust that message. But securing that system could be extremely difficult." Again, not fatal. But something to ponder.

Source:https://www.vox.com/2016/4/21/11447838/self-driving-cars-challenges-obstacles

Department Activities

Our faculty members have completed the “KAPILA-Kalam Program For IP Literacy And Awareness “program from 20th to 26th October 2029. It is organized by the MHRD Innovation cell.

To upgrade the skills of our enthusiastic faculty members they enrolled them with international professional bodies

As per Anna university's R-2017 syllabus, the Renewable energy laboratory is newly erected and brought into function. The lab contains the state of art training equipment in various energy sources like solar, wind, and fuel cells.

WEBINAR TALK

Mr. K.Krishnakumar,
Electrical Manager,
Fiat Chrysler Automobiles Eng India Pvt. Ltt

A One day webinar on *Opportunities in Automobile Industry For Electrical Engineers* was organized on *10th November* by the department of electrical and electronics engineering, Nadar Saraswathi College of engineering and technology through online pedagogy. With the internal count of 82 .webinar focused on the following key points,

As the automotive market has evolved in recent years, so have the skill sets that the biggest players in the automotive industry are looking for. We have seen a growing demand for electrical engineers, for both permanent and contract roles, to help the traditional OEMs ramp up their production of electric vehicles.

The job opportunities for electrical engineers are increasingly varied, with requirements for electrical engineers at the design and concept phase of new vehicles, as well as engineering vehicle parts during the build phase. And of course, electrical engineering skills continue to be needed for projects involving traditionally-fueled vehicles too.

Expert Lectures

Mr.M.Arivalagan HOD/EEE and Mrs.B.Shanthni AP/EEE have delivered the expert lecture on “Electricity Around Us” which was held on 1st October 2020 to our first-year students around 100 students.

The speakers shared their knowledge with budding engineers. In the session widely discussed the importance of electrical utility “Electricity is thin and thick of our life “shows the importance of choosing this topic

Mr.K.Ganesh AP/EEE and Mrs.B.Shanthini AP/EEE have delivered the expert lecture on “Energy Audit” which was held on 3rd October 2020 to our first-year students around 100 students.

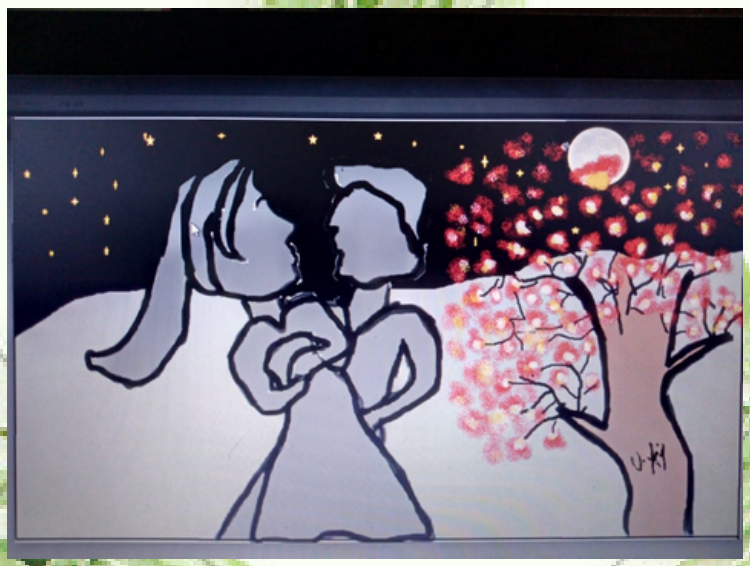
I In-depth about the concept of energy management and the need to conserve energy. They explained the roles of Energy Auditor and Energy Manager and the procedures to qualify the examinations of the same. They also spoke about the need of energy audit in high tension consumers and in heavy industries

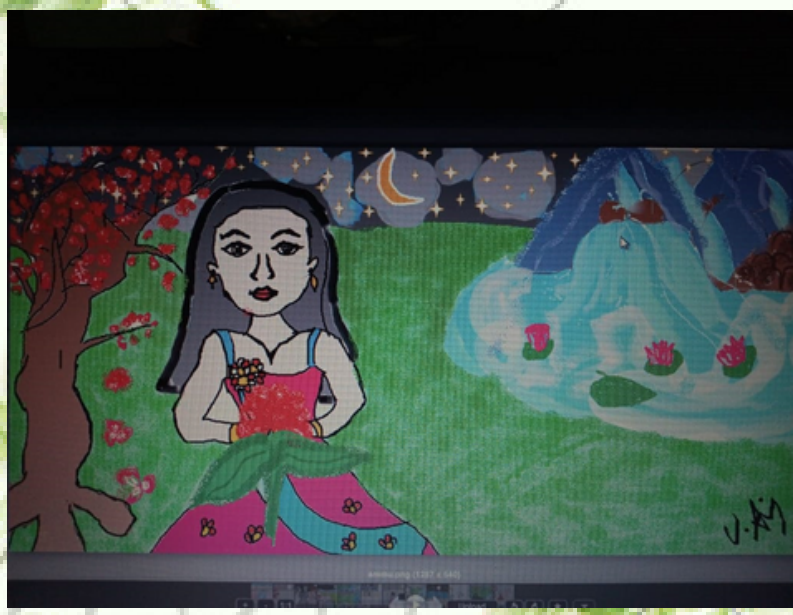
STUDENT ACTIVITIES

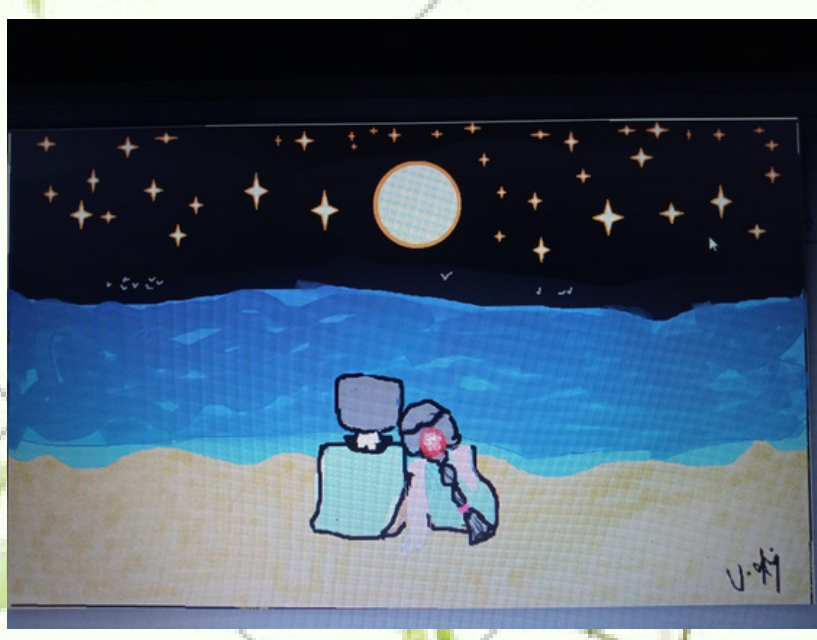
A TRAVEL MAGAZINE

SAMMITHA MANJU SRI

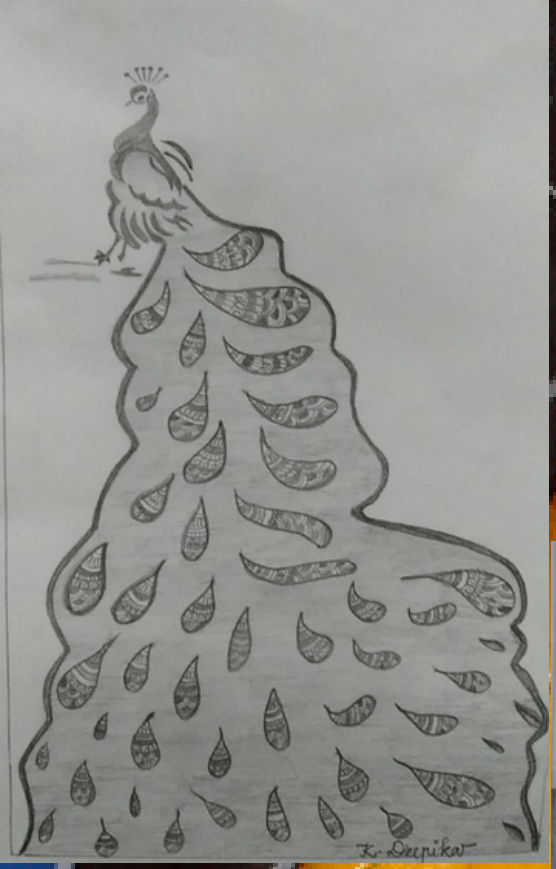
FINAL YEAR EEE

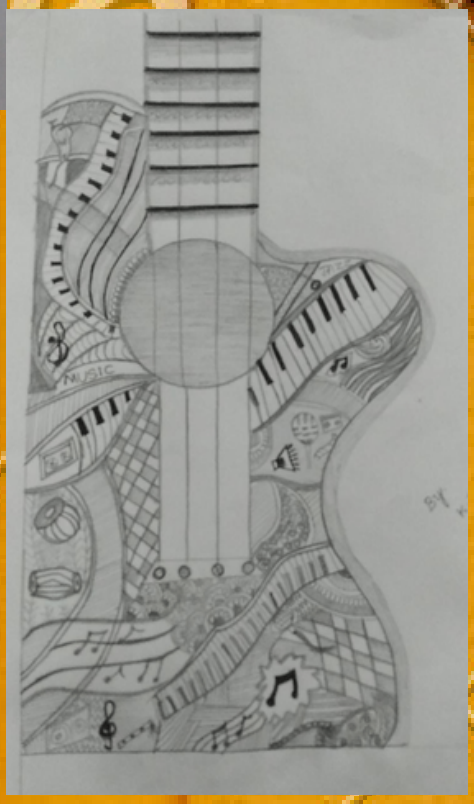




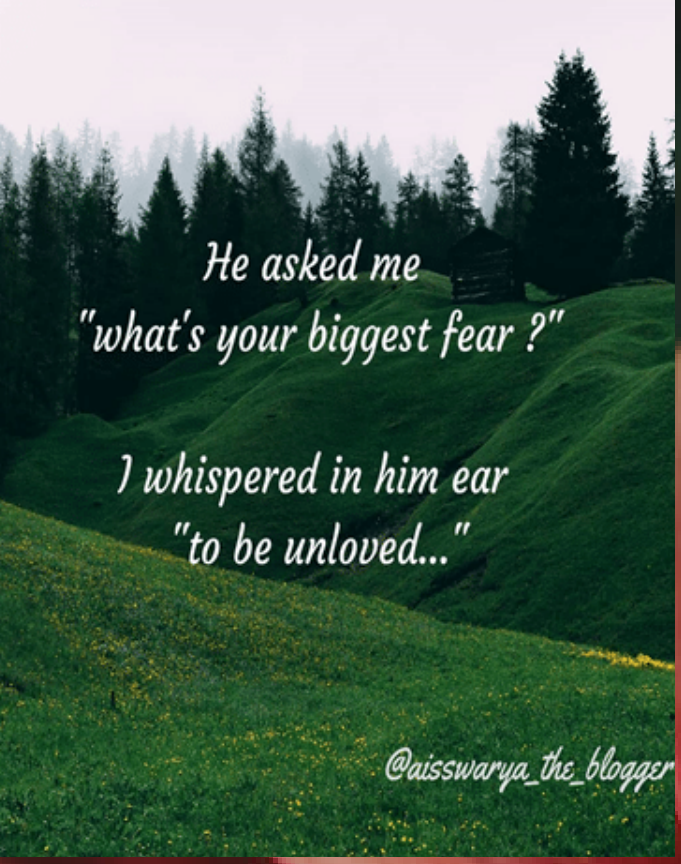


U.ABINAYA, IV -EEE





DEEPIKA IV-EEE



AISSWARYA LAKSHMI

II - EEE

TAMIZHI - THE UNTOLD STORY | ASHOKAN

BRAHMI | PHASE - 1

BY AISSWARYA LAKSHMI II EEE

To reach out to people all over humans came up with scripts (letters) humans have come up with. so many modes of communication so far but over thousands of years, an important and inseparable mode of communication in human lives still remember to be the script. Today we use tamizh script to read and write tamizh language where did this tamzhi script originate from? And during which era would have it originated? Have these questions ever cross our minds? In pursuit of an answer to this question. To prove the history of tamizh people with evidence. But this journey into the Tamil script starts and ends not from the land of modern days of Tamil Nadu. It comes as surprise.

A mountain range said to be even older than the Himalayas. It is an important place of pilgrimage for the Jain's and the Hindus. A mountain range that has lot of treasures and ancients stories hidden inside it. Along with those there exists a big rock at its base which consists of an inscription with peculiar writing on it. People who lived in these part centuries ago were surprised to see these peculiar writing on this inscription with these writing many such inscription with these kinds of writing all over them were not just in girnar but also in Andhra, Karnataka, Odisha, Bangladesh in fact, it was also found in places like Pakistan and Afghanistan

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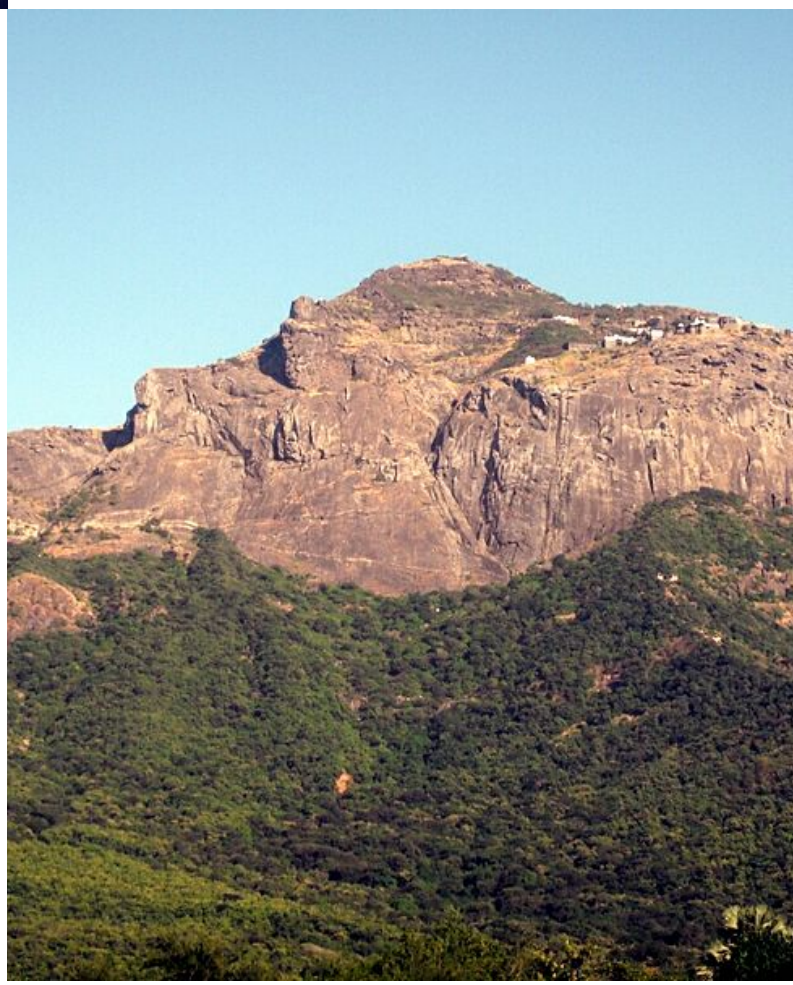


Unable to read or understand these readings people believed that someone has hidden a treasure in these mountains and left the information in the form of these writings. So that no one can decipher it. Do these writing indeed lead to hidden treasures? If so, who wrote them? And during which era was it written? Did anyone make an attempt to decipher them? Many of them attempted to decipher those writing. Muhammad Bin Tughluq was the first one to attempt to read those readings. He took the help of pundits from all over and asked them to decipher it for him. But no one succeeds pundits who lived during the era of Muhammad Bin Tughluq in the 13th century AD couldn't decipher those writings. The effort to decipher those writings continued for centuries.

Britishers who came to India in the 17th century were very keen and interested in India's languages, history, and culture. That was because the Britishers wanted to capture and rule over India. They wanted the Indians to accept their administrations. So they were very keen on Indian languages, philosophies, religions, and scripts and also they discovered a lot. They knew these discovered a lot. They knew these discoveries will help them set the for an administration here. Therefore they discovered many inscriptions. At the time in the year 1784 under the leadership of William Jones, an administration set in Calcutta called the Asiatic society they allotted funds in order to dig deep into the history of east Asian countries. They took the research on these scripts to the net level.

Placement Activities

MAFOI TRAINING CLASS

Soft skills training was given by MAFOI for our students to face the competitive world like TCS National Qualifying Test, GATE, and other competitive exams.

SUMMARY OF TRAINING CLASS:

1. Basic Requirements :

Students should have a fundamental knowledge of Aptitude, logical reasoning, and verbal ability.

2. Date and Duration :

36 hours between 12th Oct of 2020 and 23rd Oct of 2020. (3 hrs per day for 12 days) .

3.Training Outcome :

After the successful competition of the training program, students gained knowledge of aptitude, logical reasoning, and verbal ability. Training given to the students grooms them to perform better in campus interviews.

4.Students Feedback :

M.K Prathiksha from final year EEE shared her feedback on this training program was " training was excellent with good interaction. Knowledge sharing is good".

S.Dineshkumar from final EEE said that "The placement Training program was a useful learning experience. It was given to solve any type of questions and focus on various HR questions and the trainers also shared their past interview experiences." TCS National Qualifying Test, GATE, and other competitive exams.

College Activities

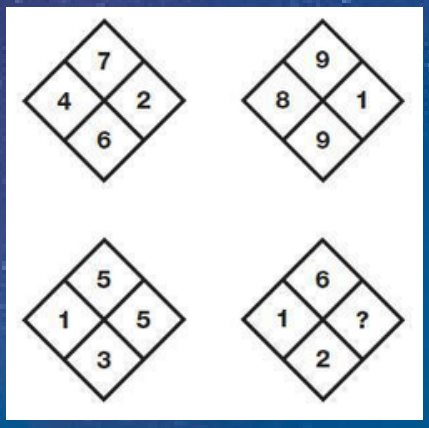
Our NSS Cell and Green Environment Cell of Nadar Saraswathi College of Engineering and Technology along with the District welfare team had done “1000 Palm tree plantation 2020” on 17.10.2020 (Saturday). This tree plantation event was inaugurated on 17.10.2020 (Saturday).

PHOTOGRAPHY

A.SARAVANAN
III EEE

PUZZLES

1. Find the Missing Number?



Ans: 2

2. How many times in a day, are the hands of a clock in a straight line but opposite in direction?

a) 20

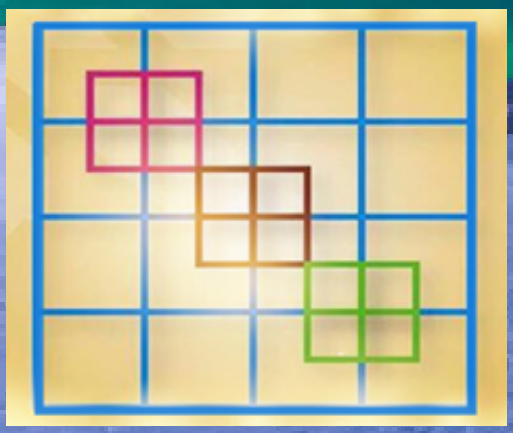
b) 22

c) 24

d) 48

Ans: 22

3. How many squares are there in the figure?



a) 44

b) 45

c) 46

d)50

Ans: 45

One rabbit saw 6 elephants while going towards River. Every elephant saw 2 monkeys are going towards the river. Every monkey holds one tortoise in their hands.
How many animals are going towards the river?

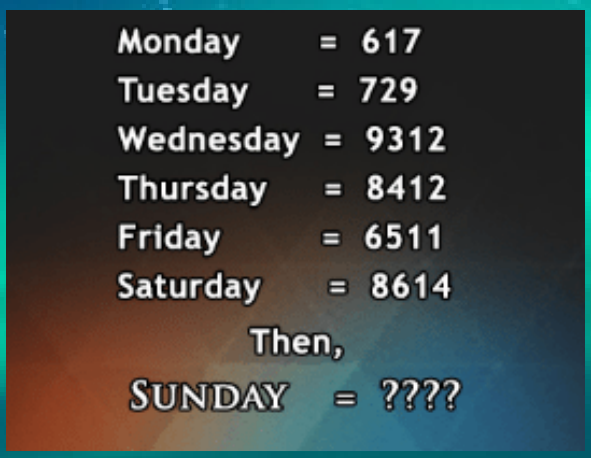
a) 14
b) 11
c) 8
d) 5

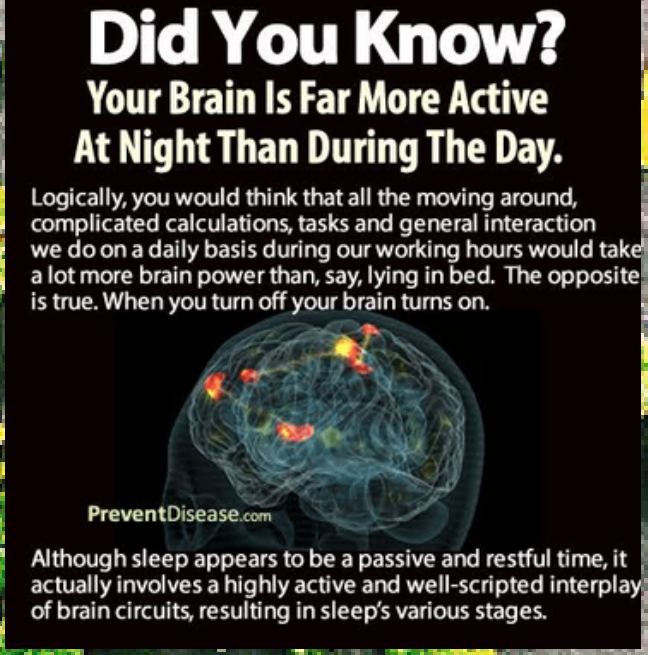
Ans : 5

5.Crack the logic puzzle?

a) 6713
b) 9415
c) 9515
d) 842

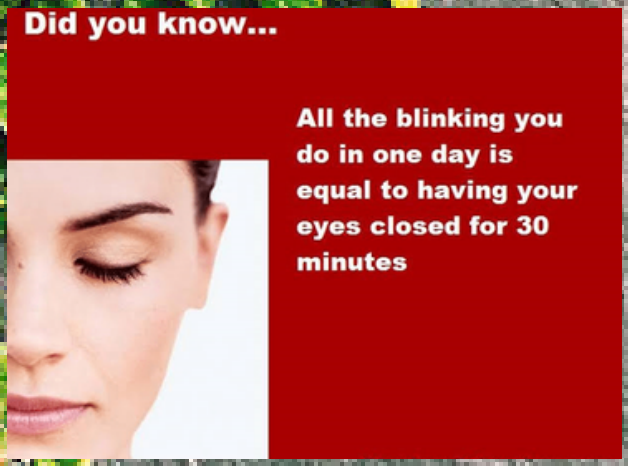
Ans: 6713



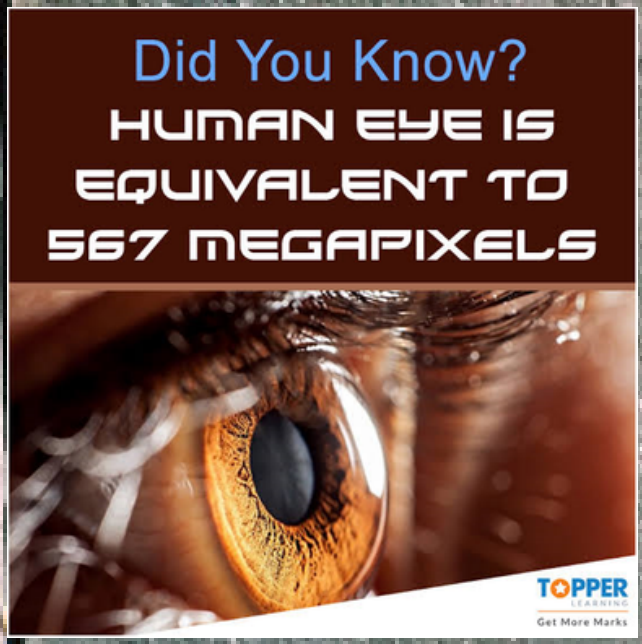

Did You Know?
Your Brain Is Far More Active At Night Than During The Day.
Logically, you would think that all the moving around, complicated calculations, tasks and general interaction we do on a daily basis during our working hours would take a lot more brain power than, say, lying in bed. The opposite is true. When you turn off your brain turns on.
PreventDisease.com
Although sleep appears to be a passive and restful time, it actually involves a highly active and well-scripted interplay of brain circuits, resulting in sleep's various stages.


WORLD'S FACT
do you know ?
our fingers get wrinkly in water
because wrinkled fingers would
give us stornger grip,
on slippery objects
underwater....


Did you know...
The right ear is better at hearing speech, and the left ear is better at hearing music.
didyouknewthat.wordpress.com


Did you know...
All the blinking you do in one day is equal to having your eyes closed for 30 minutes


DID YOU KNOW
This Railway Crossing is Located in Nagpur, Maharastra. It is called 'Diamond Crossing' because it is the Point where Indian Railway meets from North to South & from East to West. This Only of its Kind in the World & its present only in India. Incredible India !!!


Did You Know?
HUMAN EYE IS EQUIVALENT TO 567 MEGAPIXELS
TOPPER
LEARNING
Get More Marks