

We VOLTE

Volume 2 Issue 1

THE SPARK OF INNOVATION FOR ELECTRICAL ENGINEERING DEPARTMENT



By Editorial Board

Rajkiya Engineering College, Ambedkar Nagar

Magazine of Electrical Engineering Department

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DR. SP SINGH

Head of Electrical
Engineering Department

I am thrilled to receive the news of the release of our department magazine, "We Volte." On behalf of the department and personally, I want to express my sincere thanks and congratulations to every member of the editorial board whose dedication contributed to the creation of this outstanding publication.

A department magazine serves as a reflection of the department's achievements and showcases the significant events celebrated within our academic community throughout the month or year. It is a valuable resource that prepares our students for their future endeavours. The friendly guidance provided by a department magazine is immensely beneficial to students, and the encouragement it offers to budding authors and poets is invaluable.

This magazine provides a platform for young writers and poets to showcase their talent, fostering creativity and expression. Your dedication and hard work have undeniably shone through, making "We Volte" a source of pride for the entire department. It stands as a testament to the collaborative efforts of our talented team.

Once again, heartfelt congratulations to all those involved in the creation of "We Volte."

Department at a glance

ELECTRICAL ENGINEERING DEPARTMENT



Control System Lab



Microprocessor Lab



Network Lab



Power System Lab



Power Electronics Lab



Communication Lab



Electrical Workshop Lab



Instrumentation Lab



Electrical Measurement Lab



Electric Drives Lab



Microprocessor Lab



Network Lab



Power Electronics Lab



Power System Lab



Renewable Energy Lab



Electronics Lab

VISION AND MISSION OF ELECTRICAL ENGINEERING DEPARTMENT

Vision of Electrical Engineering department

To impart knowledge in Electrical Engineering by upbringing globally competent engineers, innovators and entrepreneurs instilled with the human values and professional ethics.



Mission of Electrical Engineering Department

- To offer good quality education & research in Electrical Engineering.
- To provide the knowledge base and consultancy services to the rural and weaker section of the society for their upliftment and well-being.
- To bridge the gap between industry and academia by framing curricula and syllabi based on industrial and societal needs.

THE LIST OF Faculty of Electrical Engineering department



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WE VOLTE
ARTISTIC COLLECTION
A collection of talents

A Hidden treasures of Electrical Engineering Department

*A place for Electrical
Engineering
Department students to
show case their talents*



- The human brain can power a light bulb.
Human's first contact with electricity was electric fish.

***Desh Deepak
Chaudhary***

3rd year

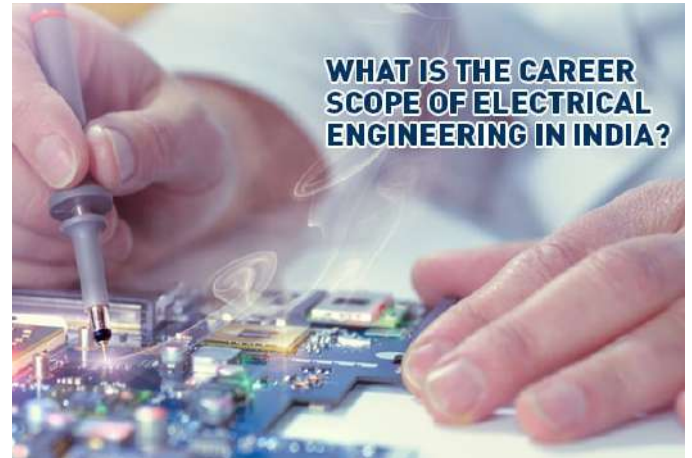
Interesting facts about Electricity.

- Electricity travels at the speed of light, which is more than 186,000 miles per second. Even still, if a light switch in your home was connected to a light bulb on the moon, you could travel around the world eight times before the bulb would light up.
- A single spark of static electricity can measure up to 3,000 volts.
- Lightning bolts travel at about 130,000 miles per hour and can reach nearly 54,000 degrees, Fahrenheit. One bolt could power 200,000 average-sized homes.
- When electric eels are hunting or defending themselves, they can create electric shocks of around 500-600 volts. Compare that to the safest amount of voltage in a socket in your home – 220 volts – and you'll see how powerful an electric eel really is.
- Reports of people being shocked from electric marine creatures exist as far back as 2750 BC (in Egypt). Ancient Romans believed these creatures could cure headache or gout.
- Electricity causes the muscles in your heart to contract. That's why electrocardiogram machines are used to monitor heart beats.
- Fireflies create light by converting their food into chemical energy, and their light is more efficient than a typical light bulb. Other creatures that can do this include the deep sea squid and glow worm.

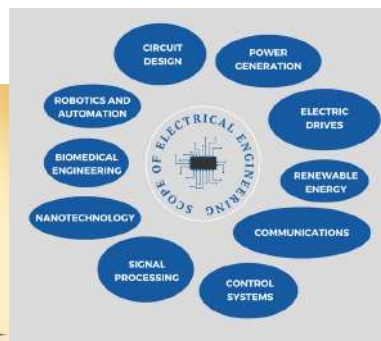
- Google searches account for 0.013% of the world's energy usage. The energy required for 100 searches = burning a 60-watt light bulb for 28 minutes.
- A refrigerator uses less electricity than a Playstation 3.
- The first lighthouse to use electricity? The Statue of Liberty in 1886. The first bridge? New York's Brooklyn Bridge.
- Around 600 BC, the Greek philosopher Thales of Miletus experimented with electricity by rubbing together pieces of amber. The term "electric" actually came from the Greek word "elektron," meaning "amber" and it first appeared in print in 1646.
- In 1879, the first street was lit by electric light bulbs: Mosley Street in Newcastle upon Tyne.
- The first common domestic items powered by electricity were the sewing machine, fan, kettle and toaster.
- If you're shaving with an electric razor while driving, avoid the Mexican city of Torreon. There, you can be fined £20 for doing so!
- **Lightning is electricity at the extremes**

SCOPE OF DIFFERENT CAREER FOR ELECTRICAL ENGINEERING

- Electrical engineering offers a diverse array of career paths, each with its own unique focus and opportunities for growth. Here's a breakdown of some key career options for electrical engineering graduates:
- **Electrical Engineer:** Designing, developing, and testing electrical equipment across various industries.
- **Power Systems Engineer:** Designing, maintaining, and optimizing electrical systems, particularly within the energy sector.
- **Electronic Engineer:** Designing electronic devices, systems, and components, often within the electronics industry.
- **Control Systems Engineer:** Designing systems to monitor and control complex machinery and processes, applicable across industries like manufacturing and aerospace.
- **Telecommunications Engineer:** Designing and maintaining communication systems, including networks, satellites, and wireless technologies.
- **Renewable Energy Engineer:** Designing systems for generating and distributing renewable energy, such as solar, wind, and hydropower.
- **Electrical Technician:** Installing, maintaining, and repairing electrical equipment across various fields like manufacturing and construction.
- **Broadcast Engineer:** Designing and maintaining radio and television broadcast equipment and systems.



- **Technical Writer:** Creating documents and manuals for complex systems and equipment, often within the electronics industry or technical support services.
- **Control Engineer:** Designing and implementing control systems for industrial processes and machines.
- **Project Engineer:** Managing and coordinating engineering projects across fields like construction, manufacturing, and energy.
- **Test Engineer:** Designing and conducting tests on electrical and electronic systems and components, often within R&D or testing services companies.
- **Electrical Designer:** Creating detailed designs for electrical systems and components, applicable in industries like electronics, construction, and engineering services.
- These career options represent just a fraction of the possibilities available to electrical engineering graduates, showcasing the breadth and depth of opportunities within this field. The choice of career path often depends on individual interests, skills, and the specific demands of the job market





FROM EARLY 1600S TO PRESENT

Popular Electrical Engineers

- Km. Neha
3rd year

WE VOLTE VOL. 2 ISSUE 1

Here are a few Electrical Engineers and their Alma mater, who have made our community proud. Please note, they may not necessarily be pursuing their work in electrical engineering right now.

Nikola Tesla - The inventor, creator, electrical engineer and mechanical engineer was an inventor way beyond his times with his futuristic innovations. The engineer invented the induction motor, fluorescent lighting and Tesla coil, all important inventions still in use today.

Thomas Edison-Thomas Alva Edison is an American engineer and researcher who is regarded as America's greatest inventor because of his contribution to the field of science which eventually led to the start of industrialization in the country.

Michael Faraday - Known for his work on electromagnetic induction, Faraday is considered one of the greatest experimentalists in the history of science.

Rowan Atkinson - Actor; Queen's College, Oxford

Mike Bloomberg - Founder, Bloomberg; Johns Hopkins University

Dr. Raghuram Rajan - Ex-Governor, Reserve Bank of India; Indian Institute of Technology

Azeem Premji - Chairman, Wipro; Stanford University

Jeff Bezos - Founder, Amazon; Princeton University

Jerry Yang - Founder, Yahoo!; Stanford University

N R Narayana Murthy - Founder, Infosys; Indian Institute of Technology, Kanpur

Nandan Nilekani - Chairman, UIDAI; Indian Institute of Technology, Bombay (UIDAI is the committee responsible for the implementation of Aadhaar Cards, something similar to one's SSN in USA)

Nikola Tesla - Father of Electrical Engineering; TU Graz (Did not complete the degree)

Eric Schmidt - Chairman, Alphabet; Princeton University.

William Thomson, 1st Baron Kelvin- Known for his work on thermodynamics and the development of the Kelvin scale, he was one of the most influential scientists of the 19th century.

Robert Noyce - Co-inventor of the integrated circuit, he helped to revolutionize the electronics industry and is considered one of the most important electrical engineers of the 20th century.

Tribute to our fallen heroes

इतिहास गवाह है

की जब जब शत्रुओं ने आंखे उठाई है

हमारे इस पावन मातृभूमि के दामन पर

तब तब हमारे शूरवीरों ने कसक नहीं छोड़ी

उनकी इस खता को अंतिम मुकाम पहुंचाने तक।

इतिहास गवाह है

सर्द में बर्फ ही उनकी चादर है और गर्मी में

सूर्य की किरणें उनकी छाया

हर पल रहते वो तत्पर खो जाने को सब कुछ

जो भी अब तक है पाया।

इतिहास गवाह है

सर्वप्रथम आती है देश की सेवा, सम्मान और सुरक्षा

फिर आती है सैन्य और सेना की बारी

और अंतिम में होती है अपनी सुविधा और सुरक्षा

कर जाने को अपना सर्वोच्च बलिदान

यही है उनकी पहली और आखिरी इच्छा।

इतिहास गवाह है इतिहास गवाह है

जय हिन्द जय भारत 🇮🇳...

वन्दे मातरम

@ सोच by गौरव पांडेय

ना होने देना कम कभी हौसलों को अपने ये हौसले ही तुझे ताक़त-ए-परवाज़ देंगे ना हटना डर के पीछे कभी-हौसलों से मुश्किलों से ये जज्बा ही है जो तुझे एक मकान देंगे.. लाओ एक जन्वा फ़तेह का अपने अंदर जलाओ आग एक नये आगाज़ की अपने अंदर उभारों उस हुनर को जो है आपके अंदर ये आगाज़ तुझे एक पैगाम देंगे.

तरफ

बढ़ाते रहो कदम अपना मंज़िल की ना देखना कभी मुढ़के पीछे की तरफ करो हर एक कोशिश तुम तरक्की की तरफ एक-एक कदम तुझे बुलन्दिया देंगे-- हौसला रख फलक से तारे तोड़ लाने का देखे हुए खाव को सच कर दिखाने का गिरकर सम्भलने का और फिर दौड़ जाने का यही हौसले तुझे कामयाबियाँ देंगे -- माज़ी को याद कर ग़म करना छोड़ दें बंदिशो की हर एक जंजीर को छोड़ दें कल बेहतर बनाने की हर एक कढ़ी को जोड़ दें ये यकीनन तुझे सँवार देंगे.

उठों और जगाओ खुद

दो एक नया जोश अपने के

जुनून को

खुन को

ठान लो कुछ कर दिखाने की इस दुनिया को

आमिर यही जोरा देतेरी कुरती पार लगा देंगे...

-आमिर करीम 'आज़मी

Quotes to motivate your mind

- "It takes courage to grow up and become who you really are." — E.E. Cummings
- "To bring about change, you must not be afraid to take the first step. We will fail when we fail to try." — Rosa Parks
- "All our dreams can come true, if we have the courage to pursue them." — Walt Disney
- "Believe you can and you're halfway there." — Theodore Roosevelt
- "Life shrinks or expands in proportion to one's courage." — Anaïs Nin
- All dreams are within reach. All you have to do is keep moving towards them." — Viola Davis
- "It is never too late to be what you might have been." — George Eliot

TEST YOUR KNOWLEDGE

- What is the flow of _____ in an electrical circuit
- The power factor of an AC circuit is the ratio of the _____ power to (divided by) the _____ power of the circuit.
- _____ overcurrent normally involves an accidental cross-connection of at least two circuit conductors (supply and return).
- The power factor of an AC circuit is the ratio of the _____ power to (divided by) the _____ power of the circuit.
- The components required for electrical induction to take place in a generator, transformer, or motor, include _____.
- The circuit conductors within an electrical circuit must be _____ to ensure that current is directed or conveyed only to _____.
- Two forms of current control are normally installed in series with the connected load of an electrical circuit: a switch to provide _____ and an overcurrent protection device to provide _____.
- The rated _____ of given wire size is normally defined as the magnitude of load current the conductor can carry (convey).
- For a small-scale electrical-power generation, the generation of AC power is normally limited to a _____ AC source.
- To protect the power system from faults, what types of protection devices are used.
- What is the role of a circuit breaker in a power system?
- What is the purpose of a power transformer in a power systems.

DETAIL >

Email the answers on
rec.editorialboard@gmail.com
by May 2 5:00p.m.

The top Three will be awarded
with the certificate.

श्रम दिवस

-राहुल कुमार (3rd year)

श्रम दिवस 1 मई को भारत, घाना, लीबिया, नाइजीरिया, चिली, मैक्सिको, पेरू, उरुग्वे, ईरान और जॉर्डन जैसे कई देशों में मनाया जाता है। यह दिन मजदूरों और श्रमिकों को समर्पित है। दुनियाभर के श्रमिक जीवित रहने के लिए कड़ी मेहनत करते हैं। एक विशेष दिन उनकी मेहनत और दृढ़ संकल्प को मनाने के लिए समर्पित किया गया है। अधिकांश देशों में 1 मई को श्रम दिवस के रूप में चिह्नित किया गया है।

भारत में श्रम दिवस पहली बार 1 मई 1923 को मनाया गया था। यह उत्सव भारतीय श्रमिक किसान पार्टी ऑफ हिंदुस्तान द्वारा मद्रास में आयोजित किया गया था। इस दिन कॉमरेड सिंगारवेलियर ने राज्य में विभिन्न स्थानों पर दो बैठकें आयोजित कीं। इनमें से एक का आयोजन ट्रालीकलान बीच पर किया गया था और दूसरी को मद्रास हाई कोर्ट के समीप समुद्र तट पर व्यवस्थित किया गया था। उन्होंने एक संकल्प पारित कर कहा कि सरकार को इस दिन राष्ट्रीय अवकाश की घोषणा करनी चाहिए।

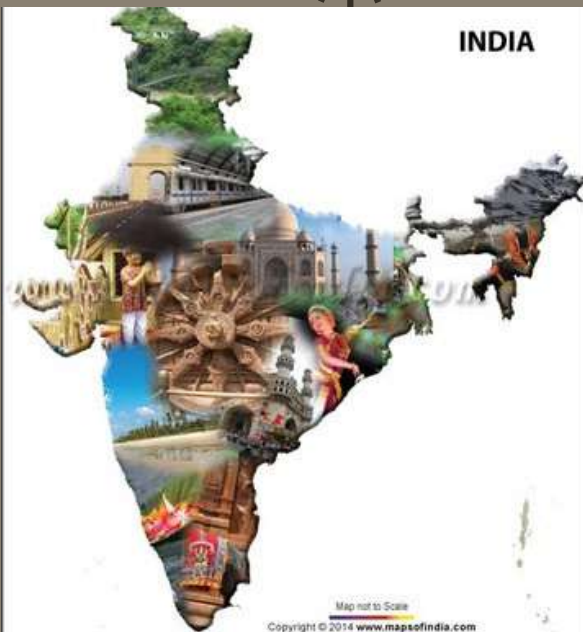
भारत में श्रम दिवस को अन्तराष्ट्रीय श्रमिक दिवस या कामगार दिन के नाम से जाना जाता है। हालांकि देश के विभिन्न राज्य इसे विभिन्न नामों से जानते हैं। तमिल में इसे उज्जैपलर धीनाम के नाम से जाना जाता है, मलयालम में इसे थोझिलाली दीनाम के रूप में जाना जाता है और कन्नड़ में इसे कर्मिकारा दीनाचारेन कहा जाता है।



महाराष्ट्र राज्य में 1 मई को महाराष्ट्र दिवस के रूप में मनाया जाता है और गुजरात में इसे गुजरात दिवस के रूप में मनाया जाता है। इसका कारण यह है कि 1960 में इसी दिन महाराष्ट्र और गुजरात को राज्य का दर्जा प्राप्त हुआ था।

विश्व के अन्य देशों की तरह लेबर डे भी भारत में श्रमिक वर्ग से संबंधित लोगों के लिए उत्सव का दिन है। इस दिन संगठनों द्वारा मजदूरों के खिलाफ किसी भी अन्यायपूर्ण अभ्यास के पालन के खिलाफ विरोध प्रदर्शन किया जाता है। प्रदर्शन करने के लिए भी कार्य किया जाता है ताकि यह दिखाया जा सके कि मजदूर एकजुट खड़े हैं और वे पूंजीपतियों की किसी भी अयोग्य मांग को बर्दाश्त नहीं करेंगे। श्रमिकों के बीच एकता को बढ़ावा देने के लिए प्रमुख नेताओं द्वारा भाषण दिए जाते हैं। श्रमिक संघ भी पिकनिक और अन्य मनोरंजक गतिविधियों का संचालन करते हैं।

श्रम दिवस की उत्पत्ति यह दर्शाती है कि यदि हम एकजुट होकर खड़े रहें तो कुछ भी असंभव नहीं है। ट्रेड यूनियनों का गठन हुआ और वे मजदूरों के अन्यायपूर्ण व्यवहार के खिलाफ मजबूत बने। हालांकि पूंजीपतियों द्वारा श्रम वर्ग का शोषण हमेशा स्पष्ट था कि इसके खिलाफ किसी ने कोई कार्रवाई नहीं की थी। ट्रेड यूनियनों के संयुक्त प्रयासों ने सरकार को श्रमिकों के पक्ष में कानून बनाने के लिए मजबूर किया।



A MESSAGE FROM EDITORIAL BOARD [APRIL]

April is the fourth month of the year and marks the beginning of the new financial year. It also marks the New Year according to the Hindu calendar, and is celebrated with many important national and international days.

This month arrives after the change of seasons from winter into spring (in the Northern Hemisphere) and therefore symbolizes innocent beginnings, which must be protected. Deep healing comes through that process, leading to beautiful new growth all around you—from lush gardens to joyful friends and family.

Taking Inspiration for this amazing month April we the students of Electrical Engineering Department have come forth with the new edition of the Magazine 'We VOLTE' .

We also would be grateful to express our heartfelt thanks towards our Director (Dr. G. Nalankilli) and the Head of the Electrical Engineering Department (Dr. S.P. Singh) for thier support for this inspiration to become a reality. Without their efforts it would we nearly impossible to publish this issue of the magazine.

This magazine is the fruitful effort put forward together by us students under the constant guidance from our Teachers, especially our Faculty Editorial Board coordinator (Dr. Mohammad Aslam Hussain Sir) who consistently guided us throughout the journey of the completion of this issue of the magazine.

We would also like to express that we are thankful for the students of Electrical Engineering Department who willing came forward to help with the publication of this magazine and also thanks for their constant support.



Our Team

Faculty co-ordinator and Editor: Dr. Mohammed Aslam Husain

Main Students Editors: Swati Sinha, Harsh Nigam, Talea Ansari, Rahul Kumar

Supporting Team : Amandeep Singh