

Indian Railways to replace its fleet with Electric Vehicles



The railways have floated a policy under which it plans to replace its entire fleet of vehicles that run on diesel, biofuels or even natural gas with electric vehicles by December 2025, in a big boost to the Centre's ambitious plan to make India a 100-per cent electric vehicle nation by 2030.

Under the policy, a vast charging infrastructure would be created at major railway stations, office buildings and parking lots.

Accelerating Electrification of Heavy Transport via Battery Test Solution

Keysight Technologies announced that Scania has selected its Scienlab Battery Test Solutions for its brand-new, cutting-edge battery laboratory at its research and development facilities in Södertälje,

Sweden. Keysight's solutions for advanced design and validation accelerate the innovation in connectivity and security in the world Scania, part of the Volkswagen Group, is one of the significant manufacturers of buses and trucks and is driving the shift to e-mobility for commercial vehicles while pursuing a long-term strategy to achieve the company's goals for innovation and sustainability.

India's power consumption grows 13.31% in September; 11.65% in H1 FY23



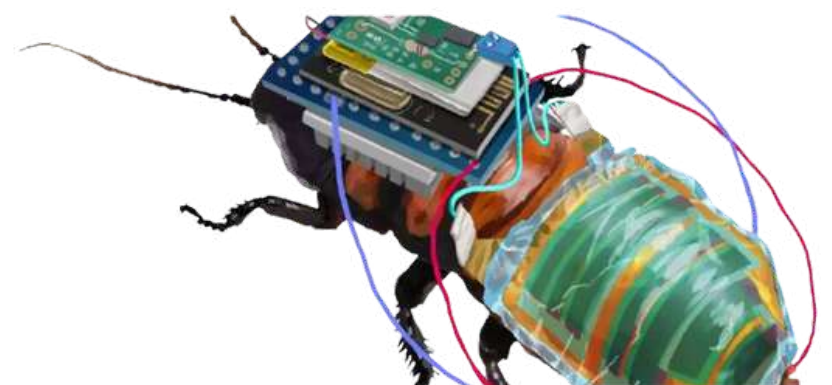
India's power consumption grew by 13.31% on an annual basis to 127.39 billion units (BU) in September 2022 and 11.65% during the first six months of this financial year, reported PTI citing government data.

Power consumption in September last year was recorded at 112.43 BU, higher than 112.24 BU in the same month of 2020, power ministry data showed. Electricity consumption during April-September 2022 grew by 11.65 per cent to 786.5 BU compared to 740.40 BU in the same period in 2021. It was 625.33 BU in April-September 2020.

For further information please scan



Researchers create cyborg cockroach powered by solar backpack



An International team of researchers has engineered a system for creating remote controlled cyborg cockroaches equipped with a tiny wireless control module to help insect hazardous areas monitor the environment. The idea is based on Madagascar hissing cockroaches. module is powered by a rechargeable battery attached to a solar cell.

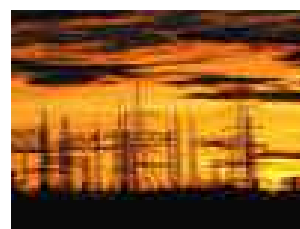
For further information please scan



Power Grid acquires SPV, to build transmission project.



What Electricity Bill 2022 seeks, why it is, raising concerns.



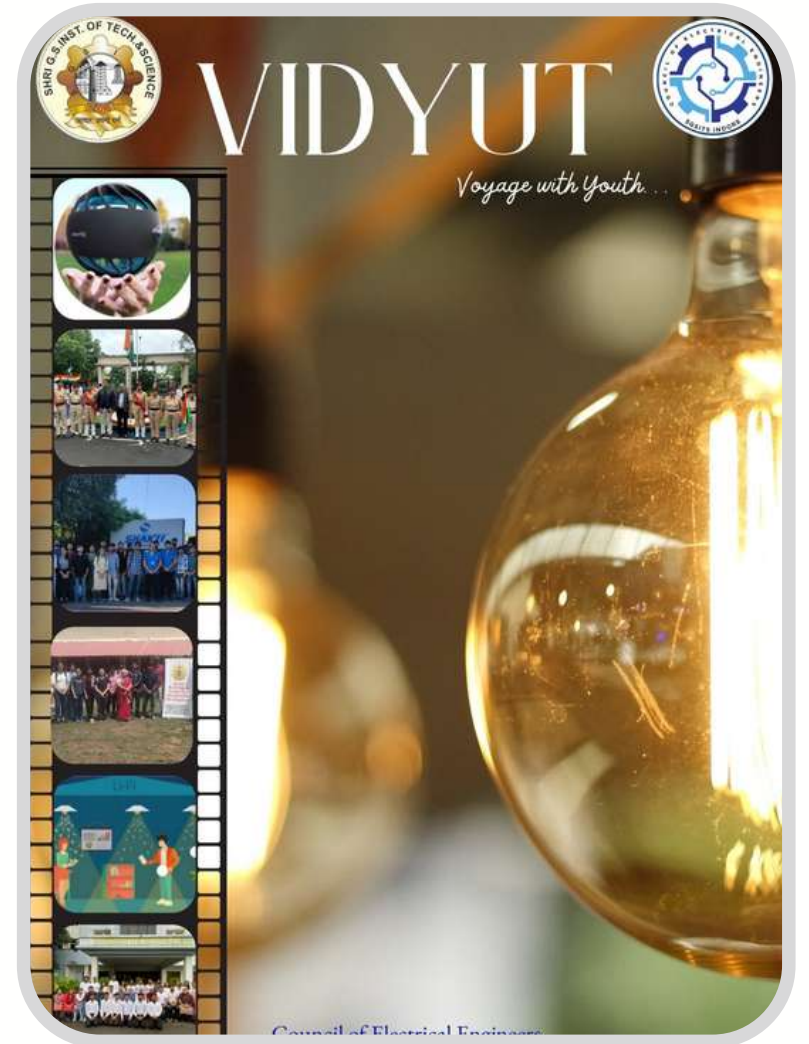
Govt mulls 233 GW new transmission capacity.



VIDYUT: Voyage with youth

Vidyut : Voyage with Youth, as the name suggests, it embarks you on an illuminated journey throughout college life. It is mainly focused on giving the forthcoming batches a brief overview of the electrical department, its history, achievements, technology and contributions to society.

The first edition showcased a guide for aspiring electrical engineers, a brief on the mother branch of engineering "Electrical", achievements of alumni, an article on IEEE provided a preface to the students about advancing technology in the field of electrical engineering, a mentor's column, technocrats, from our department, recruited by splendid corporations, technical projects like Jupiter Drone, LiFi and the future of electrical world EV's, industrial visits done by students to grasp technical and sustainable knowledge, the cultural events that took place "Beyond Studies", Creative articles and poems, Important "Exam dates & Events", and a team of Electrical Department.



"One Sun One World One Grid"

- Sajal Tiwari, III Year

"One Sun One World One Grid" will be the first international network of global interconnected solar power grids which will combine large-scale solar power stations, wind farms, and grids with rooftop solar and community grids to ensure a reliable, resilient, and affordable supply of clean energy for all. The project is being spearheaded by the governments of India and the UK in partnership with the International Solar Alliance (ISA) and the World Bank Group. It will bring together a global coalition of national governments, international financial and technical organizations, legislators, power system operators, and knowledge leaders to accelerate the construction of the new infrastructure needed for a world powered by clean energy. The concept behind the OSOWOG is 'The Sun Never Sets' and is a constant at some geographical location, globally, at any given point in time. While the sun is the source of all energy and solar energy is clean and sustainable, it is available only during the daytime and is dependent on the weather. OSOWOG is the solution to this challenge. Its objective is to aid in developing a worldwide grid through which clean energy can be transmitted anywhere, anytime.

OSOWOG envisions building and scaling inter-regional energy grids to share solar energy across the globe, leveraging the differences in time zones, seasons, resources, and prices between countries and regions. It will also help decarbonize energy production which is today the largest source of global greenhouse gas emissions. The fundamental concept behind OSOWOS is to develop a transnational grid that will be laid all over the globe to transport the solar power generated around the world to different load centers. It would thus help in realizing the vision of "One Sun, One World, One Grid" articulated by India.

In the first phase, the 'Indian Grid' will interconnect with the Middle East, South Asia, and Southeast Asia grids to share solar and other renewable energy resources for meeting electricity needs, including during peak demand. It will then be interconnected with the African power pools in the second phase. The third phase would cover the global interconnection of the power transmission grid to achieve the OSOWOG's vision.

All participants in the initiative will focus on attracting effective investments in renewable energy sources by utilizing technology, finance, and skill. When all stakeholders coordinate, it is expected to bring down project costs, and lead to higher efficiencies and increased asset utilization for all involved.



To know more about this,
please scan



National Board of Accreditation visit

The National Board of Accreditation (NBA) is one of the two major bodies responsible for the accreditation of higher education in India, along with the National Assessment and Accreditation Council (NAAC). NBA accredits technical programs that include diplomas, undergraduate and postgraduate programs, while NAAC accredits general colleges and universities. NBA conducted a three days visit in the department from 23rd to 25th September 2022. NBA experts visited the departmental laboratories, saw projects and posters made by the students of 2nd and 3rd year of B.E Electrical Engineering. They went through the academic calendars, the teaching-learning methodologies, and the performances of students under various academic and extracurricular activities.

There was a live interaction of the members of the committee with students regarding the facilities, mission and vision of the institute as well as the department, they also discussed the course outcomes and program outcomes of the department. The new elective subjects introduced in the curriculum were also welcomed. Laboratories were found well maintained and fully equipped with instruments and sufficient for learning.

We welcomed this opportunity with full dedication, it was an eye-opening experience that allowed us to further look into the areas where there is scope for improvement .

Various Expert Lectures conducted by the Department

Expert talk on "Power Quality Analysis of Various Power Electronics Converters"

Electrical Engineering Department organized an webinar on 07th September 2022 for 2nd and 3rd Year students. In this webinar, **Dr. Ujjwal Kumar Kalla (Associate Professor, MANIT, Bhopal)** delivered an Expert talk on the title "Power Quality Analysis of Various Power Electronics Converters". Dr. Kalla has discussed about AC voltage control and its issues on ac supply system in the terms of power quality. Further other topologies to enhance the power quality have been presented that were based on PWM control. The application of power electronics on microgrid employed with small hydropower plant, wind energy conversion systems and solar photovoltaic supply systems has been also discussed including their control.

Expert Talk on "Power Electronic Converters And Control Techniques For Wind Energy Conversion Systems"

IEEE student Branch SGSITS organized an Webinar on 14th September 2022 for the students of 3rd Year Electrical Engineering. In this webinar **Dr. Tripura Pidikiti (Assistant Professor Electrical & Electronics Engineering Department R. V. R. & J. C. College of Engg. Guntur (AP))** delivered an Expert talk on "Power Electronic Converters and Control Techniques For Wind Energy Conversion Systems (WECS)". She discussed basic configuration of wind energy conversion system. She also discussed various machines used in WECS such as induction generators including squirrel cage induction generator, doubly fed induction generator also special machines such as permanent magnet synchronous machines with various power electronics converter and their control. She also discussed the control from classical to artificial control.

3 C's of Team Building

A mental health counselor provides support to those experiencing mental or emotional distress. They may use a variety of therapeutic techniques to help a person manage anxiety, depression, and other mental health conditions.

Likewise, **Ms. Shruti Seth**, a counseling psychologist B.A & M.A in psychology and a P.G diploma in child and family counseling offering advice, support, and a safe space to talk about the problems a person is struggling with. CEE helps people understand their feelings, identify issues that affect their mental health, discover ways to overcome them, learn new skills and coping strategies & set goals for personal growth, etc.

CEE organized an event on the 15th of August, 2022 in which she enlightened the audience about the "3C's of team building" where she demonstrated the activities like conglomeration drawing, making students line in two parts standing alphabetically and conveying message sequentially. These activities helped us understand the importance of teamwork. The conglomeration drawing activity showed the importance of one's contribution in a team, whether big or small and that every member plays a crucial role in the success and achievement of a team. Mental health awareness is of big significance as it can have many positive outcomes.

Through the contribution of these unique activities, it gave a new perspective on mental health and its importance of it. "3C's Of Team Building"

Shri Govindram Seksaria Institute of Technology and Science

Accredited by NBA with excellent grade & Full Academic Autonomy granted by State Govt., AICTE and UGC since 1989. Under the autonomous state, the institute is affiliated with the Rajiv Gandhi Prodyogiki Vishwavidhyalaya (University of technology of M.P.) Bhopal

Welcome
FRESHERS
To
STUDENT INDUCTION PROGRAM
Bachelor of Technology (2022-2026)
Oct 13 – Oct 21, 2022

HOD's Note

"Dear first-year students, I welcome you all to Electrical Engineering Department, I hope you use every single opportunity you get here and take the best out of it in your development. My best wishes to you. Have a great journey here!"

~Dr. Harish K Verma,
HOD EED

BIENVENUE FRESHERS!!

The Department of Electrical Engineering welcomes all of you in our institution on the behalf of our Professors and seniors. First of all heartiest congratulations to all the freshers for stepping into a new chapter of your life. We delightfully welcome you all to our institution. This is the beginning of something wonderful, your college life!! So buckle up for this elated roller coaster journey on your way, and college life is just not about getting grades, it is about making lifetime memories.

And most importantly, in this phase of your life grind yourself, and find purpose and passion in your life, because this is the time when you can define your destiny!!

All the best for all your endeavors and take the best out of this institute.

KNOW YOUR LABS...

Electric Measurements & Instrumentation Lab

EMI lab demonstrates the practical aspect of measurements and instrumentation. In the technical field, measurement carries great significance as it is fundamental to controlling, improving, and verifying. Electrical parameters of a system are measured using transducers, and physical properties such as temperature, pressure, flow, force, and many others can be converted into electrical signals, which can then be conveniently measured and recorded.

This lab makes students familiar with instruments which they will be going to work in the industry. Here they get exposed to instruments like a Cathode ray oscilloscope (CRO), Digital storage oscilloscope (DSO), Linear Variable Differential Transformer (LVDT), and many more. This lab teaches students to work effectively with measuring instruments so that they can use this in their professional life.

