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अध्यक्षांच्या कलमातून....



मित्रांनो नमस्कार

विद्युत सुरक्षा ही आपली फार मोठी जबाबदारी आहे, जिथे चुकीला माफी नाही. कोणत्याच प्रकारची ओळख. वशिला चालत नाही अशा क्षेत्राशी आपण सर्वजण जोडलो गेले आहोत. म्हणून आज या विषयावर बोलणे खुप आवश्यक वाटतं आहे. व्यवसाय वाढवत असताना आपले आणि आपल्या बरोबर असणारे आपले सहकारी यांचे तांत्रिक ज्ञान वाढणे हेही तितकेच गरजेचे आणि आवश्यक आहे. नचनवीन तंत्रज्ञान अवगत करणे हा आपल्या व्यवसाय वाढीसाठी एक आर्थिक पेक्षाही महत्त्वाचा घटक आहे. आणि आम्ही सर्वचजण त्याकडे प्रामुख्याने दुर्लक्ष करीत असतो. या साठी जागृती होणे अत्यंत आवश्यक आहे. अपूर्ण माहिती, ज्ञान आणि अति शहाणपणा हा विद्युत अपघात होण्यासाठी मुख्य कारणे आहेत. ही काळाची गरज ओळखून संघटनेने विविध उत्पादकांच्या मदतीने सतत असे कार्यक्रम घेण्यावर भर दिलेला आहे. यामुळे होणारे विद्युत अपधात कमी होण्यासाठी निश्चितपणे हातभार लागेल, मदत होईल, अशी खात्री वाटते. संघटनेमुळे आपल्या व्यवसायात निर्माण होणारे तांत्रिक प्रश्न सुटण्यासाठी नकीच मदत होत असते. वेगवेगळ्या विभागात सभासदांच्या बरोबरच परवानाधारक विद्यत ठेकेदार आणि विद्यत क्षेत्राशी निगडीत असणारे सर्व घटकांना यामध्ये सहभागी करून घेतले जात आहे. यासाठी सर्व ठिकाणी आपल्या बरोबर विद्यत



निरीक्षक विभाग, महावितरण, महाराष्ट्र शासनाचा विद्युत विभाग, असे विद्युत क्षेत्राशी संबंधित असणारे सर्व विभाग सक्रियतेने सहभागी होत असल्यामुळे निश्चितपणे हे सर्व कार्यक्रम यशस्वी होत आहेत. पुणे, नाशिक, धुळे विभागाने अत्यंत चांगल्या पद्धतीने कार्यक्रम आयोजित करून चांगली सुरुवात केली आहे. इतर रिजन याचे नियोजन करीत आहेत. सुरक्षा विषयक जनजागृती करून आणि विद्युत अपधात कमी करण्यासाठी आपणास सर्वाना प्रयत्न करणे आवश्यक आहे. संपूर्ण जगात विद्युत अपधात होण्याचे प्रमाण हे आपल्या देशात जास्त आहे. कोणत्याही ठिकाणी आग लागली आणि इतर कोण्याही कारणाने लागली असली तरी शॉर्ट सर्किट हाच प्राथमिक अंदाज पुढे येत असतो. आपल्या सर्वांना हे पुसायचे आहे. आणि आपण हे नक्कीच करू शकतो. आपण सर्वजण करूयात.

मित्रानो, मला या ठिकाणी सांगायला आनंद होत आहे. पुढील वर्षी आपली संघटना शंभराव्या वर्षांत पदार्पण करीत आहे, शंभर वर्ष जुनी असणारी संघटना पुढील वर्ष शताब्दी वर्ष साजरे करीत आहे. ११ जानेवारी २०२३ ला शुभारंभ उदघाटन सोहळा आणि १० जानेवारी २४ ला समामी सोहळा'' असे कार्यक्रमाचे नियोजन करण्यात आले आहे. त्याचा एक भाग म्हणून "ECAMEX 24" हे आंतरराष्ट्रीय दर्जांचे भव्यदिव्य प्रदर्शन आपण आयोजित करीत आहोत. ECAM च्या इतिहासातील आंतरराष्ट्रीय दर्जांचे BEC सारख्या ठिकाणी '' विद्युत सुरक्षा'' हे घ्येय डोळ्यापुढे ठेऊन असे प्रदर्शन प्रथमच होत आहे. ही निश्चितच एक कौतुकास्पद बाब आहे. प्रदर्शनाबाबतचे माहिती पत्रक दिनांक १४.०६.२०२३ रोजी ऑनलाईन पद्धतीने प्रदर्शित करण्यात आले आहे. स्टॉल नोंदणीची सुरुवात खूप चांगली झाली आहे. आपण सर्वांनी केलेल्या प्रयत्नामुळे आजपर्यंत पंचवीस पेक्षा जास्त कंपन्यानी आपला सहभाग नोंदवून चांगला प्रतिसाद दिला आहे. आपण सर्वजण प्रयत्न करून आपले २०० स्टॉल लवकरात लवकर बुक होतील यासाठी प्रयत्न करून हे प्रदर्शन यशस्वी करण्यासाठी हातभार लावूयात. या सुंदर, महान, भव्यदिव्य, प्रदर्शनाचा आपण सर्वजण एक भाग बनुयात आणि हा सोहळा यशस्वी करण्यासाठी आपला हातभार लावाबा, ही आपणा सर्वांना नम्रपणे आवाहन करतो. आपल्या सर्वांच्या सहकार्याने हे यशस्वी होणारच यामध्ये तिळमात्र शंका नाही.

तसेच आपले या कालावधीत सभासदांच्यासाठी वर्षभर अनेक कार्यक्रम साजरे करणार आहोत. यामध्ये तांत्रिक सेमिनार, सहली, वेगवेगळ्या कंपनीना भेटी, अभ्यास दौरे, कटंबियांसाठी करमणूक कार्यक्रम, सत्र, चित्रकला स्पर्धा, यामध्ये प्रामुख्याने सुरक्षा विषयक फेरी, सुरक्षा विषयक चर्चासंत्र यास प्राधान्य क्रम देण्यात येणार आहे. तसेच इलेक्ट्रिक क्षेत्रात उल्लेखनीय काम करणाऱ्यांसाठी विशेष पुरस्कार, याबरोबरच सामाजिक पुरस्कार, हे पुरस्कार National/International अशा दर्जाचे राहतील . देशात/परदेशात दिले जाणारे अनेक मानाचे पुरस्कार यांच्या पंगतीला आपला हा पुरस्कार घेऊन जाण्यासाठी आपले उद्दीष्ट आहे. उदघाटन आणि समारोप अशा दोन्हीही वेळी सोविनिअर काढणे. असे अनेक प्रकारचे कार्यक्रम राबविण्याचा मानस आहे. तसेच कोणतेही विद्युत संच मांडणीचे काम परवानाधारक विद्युत ठेकेदाराकडनच करून घेण्यात यांचे या करिता समाज प्रबोधन करणे यावर भर देण्यात येणार आहे. यासाठी आपल्या सर्वांचा सहभाग आणि सहकार्य आवश्यक आहे. महाराष्ट्र राज्यापुरती मर्यादित असणारी संघटना देश पातळीवर नेण्याचा प्रयत्न करीत असताना तमच्या सर्वांच्या सहकार्याशिवाय हे शक्य होणार नाही, चेगचेगळ्या समित्या यासाठी निर्माण केलेल्या आहेत, यामध्ये आपल्या पसंतीनसार संघटनेच्या कार्यात सहभागी व्हावे. आणि संघटना शताब्दी वर्ष साजरे करीत असताना त्याचा एक भाग आपण व्हावा, आपण सर्वजण सहभागी व्हाल अशी आशा बाळगतो. असेच सुरक्षा विषयक आणि इतर कार्यक्रम वरचेवर आयोजित करून जनजागुती करून शाळा, कॉलेज याठिकाणी विद्युत सुरक्षेचे महत्व लहानपणापासुनच पटवुन देणे. असे कार्यक्रम आयोजित करून निश्चितपणे विद्युत अपधात मुक्त हिंदुस्थान घडविण्यात यशस्वी होऊ.



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महासचिवांच्या कलमातून.....





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आपल्याला आपले शताब्दी वर्ष जोरात साजरे करायचे आहे. त्यासाठी आपले सहकार्य अपेक्षीत आहे. आपल्या मनात जर काही नवीन संकल्पना असतील तर आपण त्या जरूर कळवाव्यात त्यावर नक्षीच विचार केला जाईल व त्या प्रत्यक्षात राबविण्याचा आम्ही प्रयत्न करू.

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आपला

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The Editor's Desk





Electrical safety in wires and cables

s we all know, the main safety rules regarding electricity include complete disconnection at the time of any repairs - the electrical installation must be disconnected from live parts on all poles. The wireman should verify that the installation is dead. Then he should carry out earthing and short circuiting. Protection against adjacent live parts must be provided, etc. One should never play on transformers. Similarly, primary rules are laid down for laymen, like don't fly kites near power lines, don't fly drones near power lines, stay away from electrical substations, don't climb a tree near power lines, electricity and water don't mix, never yank an electric cord from the wall and so on.

We must educate the public that the electrical safety is a general practice of workers who are exposed to handling and maintaining powered equipment. It is a set of guidelines to be followed to mitigate electrical hazards and prevent its dangerous effects in case of an accident.

In the industry of wires and cables, workers must be given protective clothing. There is always the potential for sparking or other electrical risks. Hence they must use non conductive gloves and safety eyewear to protect the eyes. Flame retardant clothes must be provided to those who maintain cable and wiring frequently.

Every wiring installation has to be properly protected near the point of entry of supply cables by a two-pole linked main switch and a fuse unit, the conductor used is to be of such a size that it may carry load current safely, use of a ground fault circuit interrupter (GFCI) is a must. These are some of the major requirements while doing any wiring installation.

Friends, today is the era of U tube and social media. Do-it-yourself projects are becoming more and more popular with the rise of U tube and other online advice. Nonetheless, it is always better to contact a professional and licensed electrician who is extremely familiar and experienced with cable/wire installation and handling. Dealing with electricity or wire currents is a dangerous job. Electricians are trained and understand safety protocols and guidelines. While they may be more expensive, their expertise will save money in the long run whether it's a small installation in your home or a big project in the workplace. Please note, you really can't put a price tag on safety and health!!



Satish Sinnarkar Editor. IECT



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Smart street lighting

-Ajit N. Kulkarni



Conventional street lighting which was being used in years are now changing to intelligent or smart street lighting because of AI. Conventional street lighting was having street lighting pole and light fitting receiving power supply from supply company and getting operated through timers. However due to advanced technology products, integration with various components, communication, and AI many additional features can be added converting conventional to smart street lighting with enhanced usefulness.

here are multiple advantages of smart street lighting and few of them are given below-

 Energy conservation- Presently timers or astronomical timers or manual operations are making lights On or Off. In case of timer-based control, timing is determined manually and hence overrun of timing makes burning hours more in case of streetlighting consuming more power. In any city nearly 20% to 40% of power is being consumed in case of street lighting. Out of which roughly 30% power can be saved if proper innovative designing is done.

By using sensors one can conserve the energy, making On and Off light fittings at correct time. Time will depend upon day light non availability or availability at that stretch or path of road. It can dim or full bright as per lux level available on road.

At times when vehicular traffic is not present fully lit up street lights are present. In such case if lighting level is reduced up to the extent of safety level only, then energy saving is possible. So, Light fitting can dim if vehicle is not there and then making it full bright when vehicle arrives.

In isolated area where lighting level can be appropriated to reduce, there it can be reduced to absolute minimum and increases in case of movement is detected. Careful lighting design if done without compromising the safety then lot of energy saving is possible.

2) Desired Lighting level- There are standards for required lighting levels and it is expected to maintain the same. Any compromise to rules may arise to accidents, uncomfortable to drivers, increase in light pollution, safety issue etc. However, by deploying smart street lighting preciseness in lighting level can be achieved for vehicular traffic or pedestrians.

3) Carbon foot print-Municipal consumption for street light is over 8,000 GWh of energy and as mentioned above nearly 20% to 40% of power is being consumed in case of street lighting. As such there will be huge reduction in carbon foot print if we save the energy.

 Environmental Condition- Conventionally environmental or weather condition such as temperature, humidity, pollution, noise etc. is being







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informed by municipal department or government departments. But with smart street lighting one can get such information at location at particular time and will enable concern department to initiate the action as required.

 Traffic and parking- Real time situation and analysis will be available at location due to cameras.
 And hence handling the congestion or parking will become easy.

6) Handling Emergency- If any emergency happens like accident or ambulance movement or essential movement or traffic jam then knowing factual data it will be easy to handle and response time will be much shorter.

7) Repairs, Maintenance- Schedule or preventive maintenance can be done easily. Repair works also can be taken up immediately since location and data is available and staff can be sent with required materials to carry out the work.

Smart street lighting comprises of various components compared to traditional street lights as given below-

 Lighting Fixtures- As per recent trend LED lamp source is being used in fixture because of energy efficiency. It is mounted in die cast or extruded aluminium casing with good thermal management. It will have tempered glass cover with suitable IK rating protection with gasket for protection from ingress to dust, water. It will have optics with wide angle to give maximum output. And a driver for LED lamp source which will be dimmable.

2) Lighting Controls- Instead of monotonous fixed level of lighting it comprises of advanced lighting control to fully illuminated, partly illuminated and color temperature change as per requirement. Same will be operated on basis of timers, ambient light levels or as per inputs given seasonally or daily and as per inputs received.

3) Input Sensors- Smartness of street lighting depends upon the inputs received through various sensors which gives real time data and they are converted into signals and actions. It comprises of-

 Day light sensors- It measures surrounding lighting lux level and as per predetermined lux level it will gives command to adjust light level and desired lux on road.

 Motion Sensors- It detects movement in predetermined area and accordingly gives the signal.
 With this lighting level increases if it is in low level. Presence Detectors- It detects presence of object like people or vehicle in predetermined area and accordingly gives the signal. With this lighting level increases if it is in low level.

 Environmental Sensors- Additional features can be obtained from these sensors such as-

- Pollution parameters level temperature, Humidity
- Air quality Seismic condition Water detection
- Speakers
 Noise levels.

These data can be used for benefit of people and will also monitor environmental conditions.

4) Pole- Essentially this is important item which is being modified to suit the requirement will have all above will be mounted on street light pole with junction box, power and network cables.

5) Communication- Intercommunication is required between street lights, sensors, central management system etc. And for which now a days IoT is preferred else cellular, Wi-Fi is used. Upcoming technology of network system is Li Fi, which can be also used. From this networking there will be exchange of data with a central management system and monitoring, control and data analysis is being done.

6) Central Management System- A central management system analyze data received from the lighting network and give alerts for operators. Then decision can be taken to -

 Monitor the system,

 Control the light,
 Scheduling the lighting,
 Faults or alerts received in system,

Necessary action can be taken on basis of above alerts and scheduling or work allocation can be done.

 Solar energy- In some cases solar powered street lighting can be used. In such case additional parameters do come for effective usage of solar power and maintenance schedule.

 CCTV- CCTV feature also can be added on pole and signal can be brought to central management system for surveillance and parking management.

As mentioned, smart street lights will offer essentially light level adjustments, energy savings, improved maintenance capabilities, intelligence due to added features compared to traditional street lights. Considering the advantages smart street light is getting adopted slowly in smart city projects. So, it is the future and can be adopted in city to get maximum benefit out of it for human beings.





Teledyne FLIR Introduces Premium E8 Pro Edition for Point-and-Shoot Thermography Inspection

Teledyne FLIR, part of Teledyne Technologies Incorporated, today announced the FLIR E8 Pro, providing a larger 3.5-inch touchscreen with FLIR Ignite Cloud connectivity within the same pistol-grip form factor as legacy E8 series thermal cameras. Through the touchscreen, users can share captured images with colleagues, partners, and clients over Wi-Fi, including with on-screen annotations to highlight findings. Images can then be loaded straight to the FLIR Ignite Cloud for improved efficiency and a smoother workflow.

The FLIR E8 Pro offers crisp thermal and visual detail at an affordable price by pairing a 5 MP digital camera with a powerful thermal camera via the FLIR patented Multi-Spectral Dynamic Imaging (MSX®) capability. MSX overlays the edge detail of the visible camera upon the thermal image, providing significantly greater detail and contextual awareness without sacrificing any thermal data. The tool also includes a built-in LED lamp to capture critical details via MSX in low-light scenarios for improved decision support.

When connected to Wi-Fi, the FLIR E8 Pro can automatically sync with the FLIR Ignite application (now available with an additional 10 GB storage for only \$30 USD per year), accessible from anywhere on mobile devices, a web browser, or a desktop, eliminating the need to carry extra USB flash drives, card storage, or cables. Images and videos shared via FLIR Ignite can then be accessed through FLIR Thermal Studio software so inspectors, colleagues, and clients can instantly review, edit, analyze, and report findings.

TPREL's subsidiary receives LOA to set up 966 MW RTC hybrid renewable power project for Tata Steel

Tata Power Renewable Energy Limited (TPREL) through its subsidiary, TP Vardhaman Surya Limited, has received letter of award (LOA) to set up 966 MW round-the-clock (RTC) hybrid renewable power for Tata Steel.

The project has the hybrid renewable capacity of 379 MW solar and 587 MW wind power. This project will fulfil a significant part of Tata Steel's green energy requirements in India, saving 2,389,160 tonnes of CO2 emissions annually. Tata Steel, will invest 26 per cent equity in the said project, which is expected to be commissioned by June 1, 2025. With this win, the total renewables capacity of TPREL has reached 7,756 MW, with an installed capacity of 4,059 MW and 3,697 MW under various stages of implementation. This is one of the biggest industrial RTC power purchase agreements under group captive segment in the country.



MoP asks CERC to start process for implementation of market coupling

Ministry of Power (MoP) has decided to go ahead with the process of market coupling.

Towards this end, the MoP has requested the Central Electricity Regulatory Commission (CERC) to initiate process of consultation and finalisation of the construct for the implementation of market coupling process. The move is in the context of multiple power exchanges. Market coupling will result in uniform prices for power across multiple exchanges.







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Underground Power Cables

Electrical power can be both transmitted and distributed using **Underground cables**. These underground cables, of course, come with their own set of **advantage and limitations**. Aside from better general appearance and lesser interference with other amenities, the advantages include smaller voltage drops and lesser probability of fault occurrence. On the other hand, they have higher production and installation costs, and hence are used wherever overhead lines aren't viable due to practical limitations or risks involved. Hence we employ them in specific places such as urban areas with high population densities and across water bodies (as submarine cables).

A typical underground cable will consist of a conductor/s covered by a number of insulating and protective layers necessary for its satisfactory operation. **Underground cables construction** is explained below:

Construction of Underground Power Cables



 Conductor: Usually, 1 or 3 conductors (depending upon the application) are used. These conductors are stranded to reduce skin effect, proximity effect and to keep it flexible. Conductors are made from electrolytic grade pure copper or aluminium.

 Conductor screen: It is a semi-conducting tape or an extruded layer of a semi-conductive compound.
 Conductor screening is generally used in MV and HV cables to maintain uniform electric field and minimise electrostatic stresses.

 Insulation: It is provided to withstand the electrostatic stress. Various types (and thickness) of insulators like VIR (Vulcanized India Rubber), Impregnated paper, PVC (polyvinyl chloride) and XLPE (Cross linked polyethylene) are utilised depending upon the applied voltage.

 Insulation screen: A layer of semi-conductive material generally used in MV and HV lines. It serves the similar purpose as that of conductor screen.

 Metallic Sheath: It provides protection to the cable from moisture and other chemicals (acids or alkalies) present in the environment or soil. It's usually made up of Aluminium or Lead. It also provides a path for fault and leakage currents as the sheath is earthed at one cable end.

 Bedding: It is a low grade insulator like Jute or Hessian which protects the metallic sheath from corrosion and from mechanical injury due to armouring.

 Armouring: It provides mechanical protection from various stresses the cable may get exposed to during its installation and operational life. It's usually a steel tape wound around the Bedding layer.



contd. page on 20



Cable Marking and Identification !





Marking System-Thermomark Roll 2.0

Cable marking is an essential part of any switch board cabinet. Wire and cable marking are used to clearly identify what is connected to what and whether there is any danger present. By using cable marking installer can ensure that anyone working in cabinet in future can maintain or update the system properly and safely. Thermomark Roll 2.0 thermal transfer printer marks labels, signs, and shrink sleeves supplied in rolls directly onsite, and can be used in all areas of industrial marking. Shrink sleeves base material is polyolefin and certification of UL 94-V0, with halogen free materials have a shrink ratio of 2:1 and comply the requirements of DIN EN 45545-2 (R22/R23/R24:HL1- HL3), ideal for the railway industry. With UV resistance following ISO 4892-2:2013-03 and flammability rating according to (ASTM 635) flame retardant. Base element of wrap on label Is Vinyl film with component silicon free PVC material.

HEAD OFFICE

Phoenix Contact (India) Pvt.Ltd. F-26/2, Cikhla Industrial Area, Phase-II, New Delhi - 110 020 INDIA Tol. +91-11-71810700 / 800 Fac: +91-11-41611071 E-mail: response@phoenixcontact.co.in Website: www.phoenixcontact.co.in

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CONTACT



contd. from page 18

 Serving: Another layer of low grade insulator like Jute or Hessian or a thermoplastic compound like PVC is again provided to protect the steel from atmospheric contaminants and agents.

Corona Discharge in overhead power lines]

Types Of Underground Cables

Underground cables are usually classified according to their Voltage ratings. They're grouped as follows:

1.Low tension cables which have a maximum voltage handling capacity of 1000V

 High tension cables which have a maximum voltage handling capacity of 11kV

3.Super tension cables which have a maximum voltage handling capacity of 33kV

4.Extra high tension cables which have a maximum voltage handling capacity of 66kV 5.Extra super voltage cables which are used for applications with voltage requirement above 132kV.

[Read in details: Types of underground cables]

Classification Of 3 Phase Underground Cables

 Belted cables: As the name suggests, it has an additional layer of oil-impregnated paper which is wound around the insulated conductors. Such an arrangement is useful for low and medium voltage levels up to 11 kV.

 Screened cables: Used only in particular applications with specialised construction, these Underground cables can be further divided as H-type and S.L-type cables.

 Pressure cables: These are used when the voltage requirement exceeds 66kV and solid cables can't be used. Either pressurized gas or pressurized oil is used in these cables.



Platima Cables Industries

Platima Cables Industries is a renowned manufacturer of a wide range of cables specifically designed for process instrumentation. In industries such as power generation and distribution, chemical and fertilizer, as well as various engineering sectors, process instrumentation plays a vital role in the measurement, supervision, and control of industrial processes. The introduction of microprocessorbased and computerized instrumentation has raised the bar for stringent quality requirements and special electrical parameters for instrumentation cables. These cables are responsible for transmitting very low-level electrical signals over long distances, from the measuring end to display units or controllers, which are often located far away. However, these delicate signals are susceptible to external noise interference and significant signal attenuation during transmission.

At Platima Cables Industries, we specialize in manufacturing Elastomeric Cables using both natural and various types of synthetic rubber compounds. Our state-of-the-art production facility employs highly skilled professionals who utilize modernized techniques to create compounds based on materials such as EPR, CSP, NBR-PVC, EVA, and silicon. These compounds are carefully formulated to meet the specific operational requirements of different applications. Continuous research and development, as well as upgraded production technologies, are core components of our Elastomeric Cables Division at Platima Cables Industries. We take pride in manufacturing cables that comply with both national and international standards, ensuring the highest quality and performance.

Our team of design engineers at Platima Cables Industries is dedicated to providing comprehensive assistance to customers in designing cables for critical applications. We offer a diverse range of cable solutions, including:

Elastomeric cables and flexible cords designed for power and lighting applications. Welding cables, available in both general-purpose and HOFR (Heat and Oil Resistant and Flame Retardant) types, Ship wiring cables and cables suitable for submerged connections, Cables specifically engineered for railways, including locomotives and coach wiring. Cables tailored for engineering and chemical industries.

At Platima Cables Industries, we prioritize stringent quality control measures, continuous research and development efforts, and the utilization of cutting-edge production technologies. This enables us to deliver reliable, high-performance cables that meet the demands of various industrial applications.





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- Engg. College Students

 An effective ad campaign during and prior to the event will be run in different media.
 Advertisements in national newspapers and industrial journals will be published well ahead, which would flash highlights and previews of the event. • TV commercials, Hoardings & Banners across the Metro cities. • Direct mailers and special invitations will be sent to decision - makers and key personnel and professionals related to the industry.

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Gala Concluding Ceremony: 10 January 2025

The year long celebration will be concluded with a Gala event with Entertainment & Dinner

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2 VICE PRESIDENT - ECAM	SHRI UMESH REKHE	98222 88423	ramavijayaele@gmail.com
3 GENERAL SECRETARY - ECAM	SHRI DEVANG THAKUR	94222 49672	devangthakur@yahoo.co.in
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It & It



How renewable energy policy reforms and human capital are shaping

India is not just dreaming of a brighter future - it is weaving it into reality with every policy and every investment. The world watches in anticipation as India continues march towards Amrit Kaal.



A recently-released Morgan Stanley report on India's transformation in less than a decade presented sharp insights on the milestones, which makes detractors sit up and take notice the country's growth trajectory and economic potential. Insights apart, this report presented a pointed imagery that portrayed the Indian economy from being a slow-moving elephant to a rapidlyleaping cheetah – there could not have been a better metaphor to depict our economic metamorphosis. What India has become today is because of what we've believed our country can be – Yatt Bhavo, Tatt Bhavati (You become what you believe).

Very few countries in the world has grown in the past decade as remarkably as India. Last year, our economy became the fifth largest in the world, with growth forecast of 7%. This, from being the 11th largest economy in the globe just a decade ago, it is now slated to have the world's fourth highest GDP by 2027, as projected by IMF. If these mindboggling numbers are an indication of a metamorphosis, what is? Human capital, the game changer Having its core in the collective vision of Atmanirbhar Bharat, India's growth path has been designed as green, self-reliant and all-inclusive, and not merely economic. Unleashing true potential will be a result of human talent, policy reforms and opportunities, and so, the call to action for atmanirbharta signifies utter faith in in our countrymen's resilience, entrepreneurial spirit and creative vision. Innovation and entrepreneurship are slated to be the key enablers for India to become one of the world's largest economies. Our country is expected to add an additional 100mn tech-enabled jobs and become home to around 1,05,000 tech startups in the next two years. This is where the talent pool of our young nation - something no other country will have - will prove to be the game changer. While laying

down this year's Union Budget, Finance Minister Smt. Nirmala Sitharaman laid down Saptarshi

or the seven pillars that will drive India towards Amrit Kaal. Youth power was one of those pillars that will show our country the way towards atmanirbharta in the next 25 years, as we march towards the centenary of our Azaadi. Our demographic dividend of people below 30 will ensure we have an abundance of manpower skilled in the areas of AI, ML, quantum computing and decarbonisation. All of these are sectors of tomorrow, and through educational policies and reforms, our country is shaping up futureready generations, who can be seamlessly inducted into workforce when the time comes.

Policy reforms, shaping our future economic identity The wave of policy reforms to drive new businesses and sectors aims at bringing about a structural change in our economy from being services- oriented to manufacturing. Strategic moves such as the Production-Linked Incentive (PLI), measures such as reducing corporate tax rates from 30% to 22% and infrastructure-related policies have played a pivotal roles in altering our financial landscape. The efforts to synchronise the National Infrastructure Pipeline (NIP) with Gati Shakti and the National Bank for Infrastructure Financing & Development (NaBFID) will facilitate timely implementation of projects and prevent time and cost overruns. The emphasis on energy transition towards from coal-based sources to green energy, has seen renewable energy rise to 95.7GW between 2015-23 from 25.7GW in 2006-14. Increased thrust on digitisation has altered our financial landscape, with Unified Payments Interfaces (UPIs) amassing an impressive user base of over 200mn conducting approximately 3.5bn transactions

monthly. Similarly, the number of broadband subscribers has seen exponential growth. Coming to the PLI scheme, it alone harbours the potential to attract \$520bn in manufacturing investments in the coming five years. Imagine the number of jobs this will eventually create and

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the amount of money that would be transferred back to the consumers. For our country that has already witnessed a change in its consumption story, this would mean a shot in the arm for domestic consumption and better lifestyles and financial futures of our countrymen.

India has and always remain a source of endless potential. Foreign investments, especially in the manufacturing sector, continues to remain strong owing to stable and secure supply chain and favourable geopolitical situation. While this is an indication of the tides changing, more investors need to seriously consider India's growth prospects and pour in large capitals with realistic expectations. They need to consider their investment journey as planting seeds and waiting for them to eventually bear fruits. It's a long-term process that will bear returns only in a decade or so with patient capital investment, especially in infrastructure and manufacturing sectors. Green and self-reliant, the India of tomorrow Advt The RBI has been making efforts to promote the Indian rupee for crossborder trade is being viewed as a step towards internationalisation of our currency. However, there are several challenges in the way that might impede the short-term and long-term efforts being made towards this. One of the reasons why our currency largely gets beaten down is because we are largely dependent on imports for our energy needs be it coal, oil or gas - and continues to remain one of the world's top consumers of crude oil. Therefore, the loud calls for decarbonisation and atmanirbharta, assumes greater significance as the energy sector is the fuel of our very existence. With an ambitious investment of 25 lakh crore, India is prepared to elevate its infrastructure and renewable energy sectors to meet international benchmarks. As the country embarks on the path to its 2030 vision, renewable energy is anticipated to constitute 40% of the total energy capacity, a formidable leap from 23.5% in 2020. Producing green energy indigenously

becomes critical for the overall country's security. As we start producing solar panels, electrolysers, wind machines, and along with pumped hydro, clean and reliable power can be generated at mass scale without polluting the environment. The manufacturing machinery will begin to run on clean fuels, and sectors that were considered hard to abate such as steel, aluminum, copper and cement will be decarbonised using methanol, bioethanol, green ammonia, green hydrogen and its variants. India is at a stage when we are still developing and this will be an advantage for us. Incorporating green practices at this stage would mean learning and upgrading to a reformed way of life rather than unlearning and rebuilding a new way. The first steps have already been taken as factories these days are green compliant - all we need to do is harness the energy around us to produce green fuels. With green growth becoming a mainstay for us, policies on green hydrogen, electrolysers and e-mobility ensures India is growing responsibly by greening the planet, creating employment and becoming a responsible supply chain location for the rest of the world. The dawn of a new economic era Growing up, we associated our country as 'sone ki chidiya' (golden bird). The way India is transforming, the bird song has morphed into a resounding roar - that of a 'sone ka sher' (golden lion). The confident strides the country continues to takes towards the future can be further bolstered by military strength, along with green growth, as peace has the power to bring overall prosperity - Lokahaa Samastaha Sukhino Bhavantu (Let the entire world be happy). Yet, this is only the beginning. As India soars towards its vision of joining the world's largest economies, resilience, determination and an unwavering march towards self-reliance will be the enablers, fuelled by strategic policies, the relentless energy of its entrepreneurs and the unwavering faith of its people. India is not just dreaming of a brighter future - it is weaving it into reality with every action, every policy and every investment. The world watches in anticipation as India continues its march towards Amrit Kaal.





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Polycab India's Commitment to Sustainability: Pioneering Energy-Efficient and Eco-Friendly Solutions for a Greener Future

Bhushan Sawhney

Executive President and Chief Business Officer (Cables) Polycab India Ltd.

ndia is witnessing an interesting phase in the history of sustainable and economic development. The ongoing meetings in the lead-up to the G20 Summit which India is presiding over have put the spotlight back on the country's commitment towards achieving net-zero targets by 2070 and low-carbon pathways. India has set it a priority to preside over discussions on energy with a focus on low-cost finance for the energy transition to decarbonise the economy and provide universal access to clean energy. The transition aims for a shift from a carbon-based development model to a more sustainable development model. India has been laying stress on the idea of sustainable living and highlighted the issue of climate change at global forums.

India's presidency of the G20 Summit will be a slingshot towards assuming leadership roles among the emerging economies in the bloc, especially in areas of accelerating sustainable development goals, inclusive growth and seeking affordable clean energy partnerships. India has the opportunity to showcase its efforts in realising numerous international pledges, including promises made to tackle climate change.

SHARED RESPONSIBILITY

The government's commitment alone, is insufficient to propel India into the orbit of its climate mission. We need our people, institutions and businesses to come forward in the mission to achieve carbon neutrality and prevent irreversible damage to the planet from green energy transition to developing sustainable, safe and resilient infrastructure, the various stakeholders in India's development have crucial roles to play.

But will building eco-friendly and sustainable

infrastructure alone work as a panacea, unless the sources from where these infrastructures draw their energy aren't efficient and 'green', too?

Electrical wire and cables that are the veins of any domestic, commercial and industrial infrastructure and growth machine do not find the deserved attention in our focus on the 'look and feel' of what lies in front of us. Lack of knowledge about the intricacies involved in wiring often leads to fire hazards and loss of lives and properties. A May 2022 report pointed out that firerelated accidents have killed an average of 35 people every day in five years surveyed between 2016 and 2020. Not only that but in our rush to catch up with the latest trend of purchasing energy-efficient and smart appliances we seldom take notice of efficient wiring and cables that bear the load of our appliances, gadgets and pieces of machinery.

WINDS OF CONSCIOUS CHANGE

Until a few years ago, the personal preferences of electricians entrusted to carry out the installation or servicing of wirings at homes largely influenced a consumer's purchasing decision. Fortunately, the approach of consumers while purchasing wires and cables for homes and buildings has been gradually changing. Consumers nowadays are increasingly making informed decisions while choosing the quality of wiring for their homes. People search for the safety, quality and durability of wirings, as they are the backbone of the entire electrical system of our homes.

Moreover, environmentally conscious consumers have increasingly been researching on such wires and cables that are environment-friendly and energyefficient. A series of global catastrophic events and increases awareness about social impact issues are prompting consumers and businesses to make





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responsible choices that are beneficial not only for them but for the planet, too.

GREEN WIRES – AN ALLROUNDER PROTECTOR

Manufacturers across the board are nurturing innovative technologies that mitigate risks to life, property and the planet, by developing electrical wires and cables that are sustainable, safe and resilient to disasters and accidents. Polycab Green Wire is one such solution that combines breakthrough engineering with meticulously selected materials that conform to stringent European Norms of Environmental Sustainability and Cable Safety.

Polycab Green Wire is energy efficient, RoHS and REACH compliant, has a low smoke density, and emits negligible toxic gases in extreme fire situations, thus making it the preferred choice for Green Buildings. The Green Wire comes with 5-in-1 Green shield technology that delivers fire safety and energy efficiency. It is lead-free, long-lasting, ecofriendly, and offers shock protection.

Green Wires are manufactured in a way that limits the environmental impact of their production by ensuring sustainable practices such as limiting energy consumption or diverting waste from landfills.

In the event of a disaster, Polycab's Green Wires emit low smoke and non-toxic gaseous substances harmful to human health. Being RoHS compliant, which limits the use of hazardous substances in electrical and electronic equipment to protect the environment and public health, Polycab's wires flame-retardant properties and have a longer lifespan. Having low halogen, Polycab Green Wire

doesn't release toxic fumes in the event a fire, thereby, mitigating asphyxiation risks responsible for majority of fire-related casualties and also makes it easier for the building occupant to find an exit.

BLDC FANS - ALL-STAR, COOL SOLUTION

India is taking giant strides towards fulfilling its energy goals through its progressive international initiatives and policy changes. One among them is the passage of the Energy Conservation (Amendment) Act in both Houses of Parliament last year. The noteworthy features of the bill include mandating the use of nonfossil sources, including Green Hydrogen; establishing Carbon Markets; bringing large residential buildings under the ambit of the energy conservation regime; and enhancing the scope of the Energy Conservation Building. Code.

India has a well-established provision for manufacturers of electrical appliances to get their products rated on energy efficiency and help make consumers an informed choice of purchasing them. But until recently the norms applied only to large appliances such as air-conditioners, refrigerators and washing machines. The government has now extended the applicability of star rating norms on smaller appliances such as ceiling fans — thereby bringing more accountability on part of manufacturers to produce efficient products.

A tall market leader in the wires and cables segment, Polycab has been playing an active part in India's smart and sustainable energy efficiency goals with several offerings. Polycab's five-star rated BLDC energy-saving ceiling fans and smart LED lights are solutions that cater to informed consumers of this age while reducing stress on power consumption and resultant pollution.

A BLDC (brushless direct current) fan, such as the one that Polycab offers, consumes less electricity as compared to a normal induction fan and has a longer lifespan. It operates on direct current electricity, and its motor contains permanent magnets instead of electromagnets used in induction motors, thus limiting heat loss and energy like in electromagnets. The BLDC technology completely revolutionised the fan industry.

> With the new Bureau of Energy Efficiency Star Ratings being introduced from January 2023, Polycab has launched a range of new revised and improved Star Rated Fans.

SUSTAINABLE ENERGY CONSUMPTION THE WAY FORWARD

India's commitment to achieving energy reliance and clean power is on the track, and market enablers like Polycab are key stakeholders in the country's growth.



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निविदा/करारनामा प्रारुपामध्ये, लवादाच्या आदेशानुसार कार्य सेवा कंत्राटाच्या अनुषंगाने विलंबाने होणारे प्रदान/ न्यायालयीन प्रकरणानुसार करावयाचे प्रदान अशा प्रकरणी व्याजदराची तरतूद निविदा/करारनाम्यामध्ये समाविष्ट करणेबाबत.

प्रस्तावना :-

सार्वजनिक बांधकाम विभाग, जलसंपदा विभाग व अन्य विभागामार्फत निविदा काढन विविध कामे करण्यात येतात तसेच विविध सेवा घेण्यात येतात. या कामांची/सेवांची देयके अदा करताना विविध कारणाने विलंब होतो. विलंब झाल्याने कंत्राटदार देयकाची रकम व्याजासहित मिळण्यासाठी न्यायालयात अथवा लवादापुढे जातात. विलंबाने होणारे प्रदानाच्या अनुषंगाने लवादाच्या आदेशानुसार व न्यायालयाच्या आदेशान्सार शासनास व्याजासहित देयके अदा कराबी लागतात. व्याजाचा दर, लवाद अथवा न्यायालय प्रकरणपरत्वे व तत्कालीन परिस्थितीनुसार ठरविते. सदरचा दर रिझर्व्ह बँकेने निश्चित केलेल्या दरापेक्षा जास्त असल्याने शासनास खुप मोठा आर्थिक भुर्दंड सोसावा लागतो. या अनुषंगाने शासनाकडून विलंबाने अदा करावयाच्या देवकांकरिता निविदा व करारनाम्यामध्ये व्याज दर नमुद करण्याबाबतचा प्रस्ताव शासनाच्या विचाराधीन होता.

शासन निर्णय :-

सार्वजनिक बांधकाम विभाग, जलसंपदा विभाग व अन्य विभागामार्फत निविदा अटी शर्तीमध्ये लवादाची तस्तूद असते. अशा कार्य/सेवा कंत्राटाच्या अनुषंगाने विलंबाने होणारे प्रदान, लवादाच्या आदेशानुसार करावयाचे प्रदान, न्यायालयीन प्रकरणानुसार करावयाची प्रदाने इत्यादी बाबतीत व्याजाची रक्कम ही NHAI (National Highways Authority of India) प्रकल्पामधील सवलत करारनाम्यातील तरतुदीनुसार रिझर्व बँकेने वेळोवेळी जाहिर केलेले बँक दर + ३ टक्के प्रती वर्ष, या दराने असेल अशी स्पष्ट तरतुद निविदाच्या अटी व शर्तीमध्ये तसेच त्या अनुषंगाने करण्यात येणाऱ्या करारनाम्यामध्ये विनिर्दिष्टपणे नमुद करण्यात यावी.

३. प्रशासकीय विभागांना विनंती करण्यात येते की, सदर आदेशातील तरतुर्दीनुसार विभागांनी कार्यवाही करावी. कार्यवाही करणेबाबत अधिनस्त कार्यालयांना कळविण्यात यावे. याबाबत आवश्यक त्या सुधारणा यापुढे प्रसिध्द करण्यात येणाऱ्या निविदा तसेच, करारनाम्यामध्ये विनिर्दिष्टपणे केली जाईल, याची दक्षता सर्व मंत्रालयीन विभागांनी घ्यावी.

 अ. सदर शासन निर्णय, महाराष्ट्र शासनाच्या www.maharashtra.gov.in या संकेतस्थळावर उपलब्ध करण्यात आला असून, त्यांचा सांकेताक 202306061627330305 असा आहे. हा शासन निर्णय डिजीटल स्वाक्षरीने साक्षांकित करून काढण्यात येत आहे.

महाराष्ट्राचे राज्यपाल यांच्या आदेशानुसार व नावाने. Digitally signed by AJAY PANDURANG WAGH (अ. पां. वाघ) उप सचिव, वित्त विभाग

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गुजरात ऊर्जा विकास निगम लिमिटेड कडून अवादा समूहाला ४०० मेगा वॉटच्या सौर ऊर्जा प्रकल्पासाठी LOI मिळाले

कंपनीने e-reverse लिलावा अंतर्गत विजेच्या भावावर आधारित स्पर्धात्मक लिलावामध्ये गुजरात ऊर्जा विकास निगम लिमिटेडकडून २०० मेगावॉट क्षमता रुपये २.७५ प्रति किलोवॅट आणि ग्रीन शूज या पर्याया अंतर्गत आणखी २०० मेगावॉट क्षमता रुपये २.७१ प्रति किलोवॉट दराने जिंकली आहे.

अवादा एनर्जी ही अवादा समूहाचा भाग असून हा समूह भारतातील अक्षय ऊर्जा निर्मिती, सोलर मोड्यूल उत्पादन, इलेक्ट्रोलाइजर उत्पादन, हरित अमोनिया उत्पादन या सर्व क्षेत्रात आधाडीवर आहे. या कंपनीला आता गुजरात ऊर्जा विकास निगम लिमिटेडकडून ४०० मेगावॉटच्या सौर ऊर्जा प्रकल्पासाठी लेटर ऑफ इन्टेन्ट मिळाले आहे. कंपनीने e-reverse लिलावा अंतर्गत विजेच्या भावावर आधारित स्पर्धात्मक लिलावामध्ये गुजरात ऊर्जा विकास निगम लिमिटेडकडून २०० मेगावॉट क्षमता रुपये २.७५ प्रति किलोवॉट दराने आणि ग्रीन शूज या पर्याया अंतर्गत आणखी २०० मेगावॉट क्षमता रुपये २.७१ किलोवॉट दराने जिंकली आहे.

प्रकल्पाला प्रत्यक्ष सुरुवात झाल्यानंतर त्यातून ७४० मिलियन युनिट्स एवढ्या हरित ऊर्जेचे उत्पादन प्रतिवर्षी होईल असा अंदाज आहे. यामुळे कार्बन डायऑक्साईडचे उत्सर्जन प्रतिवर्ष ६,८८,९४० टन एवढे कमी होण्यास मदत होणार आहे. या सौर ऊर्जा प्रकल्पामुळे अंदाजे ५ लाख घरांना हरित वीज मिळणार आहे. लिलावातील अटीनुसार जी वीज या सौर प्रकल्पातून निर्माण होईल ती २५ वर्ष गुजरात ऊर्जा विकास निगमला पुरवली जाईल. वीज खरेदी करार केल्याच्या दिवसापासून १८ महिन्यांच्या आत प्रकल्पाला सुरुवात होईल.

या सगळ्याबद्दल अवादा समूहाचे सीइओ श्री. किशोर नायर यांना विचारले असता ते म्हणाले की 'हा आमच्या शिरपेचात खोवला जाणारा आणखी एक मानाचा तुरा आहे. कारण हा प्रकल्प आम्ही जिंकला म्हणजेच आम्ही संपूर्ण गुजरात राज्यात अक्षय ऊर्जा निर्मितीच्या क्षेत्रात आणखी एक पाऊल पुढे गेलो आहोत. देशातील लोकांचे दीर्घकालीन सुरक्षित भविष्य घडवण्याच्या वाटचालीत आम्ही आमचे पूर्ण योगदान देऊ.

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१६ जून २०२३ रोजी इलेक्ट्रिकल कॉन्ट्रॅक्टर्स असोसिएशन ऑफ महाराष्ट्र (इकॅम) पुणे विभाग आणि R R Kabel wires & Cables कंपनी यांच्या संयुक्त विद्यमाने Electrical Installation in High-rise Building (उंच इमारतीचे विद्युतीकरण) या विषयावर तांत्रिक चर्चासत्र आणि R R Kabel कंपनीच्या वायर्स आणि केबल्स उत्पादनाविषयी माहिती या कार्यक्रमाचे आयोजन 'इन्स्टिटयूट ऑफ इंजिनीयरिंग कॉलेजचे फिरोदिया सभागृह शिवाजीनगर पुणे' थेथे करण्यात आले.

'बहुमजली इमारतीचे विद्युतीकरण करत असताना अपघात होऊन आपल्या राष्ट्रीय संपत्तीचे व कोणतीही जीवितहानी होऊ नये यासाठी ऊर्जा विभागाचे नियम पाळावेत ' असे मत विद्युत निरीक्षक पुणे, श्री नितीन सूर्यवंशी साहेब यांनी मांडले. As per CEA 2023 Regulation No. 38, General Arrangement, Electrical Duct Arrangement, Conector Arrangement in Duct, Meter Room Arrangement. या नियमांनुसार रोजच्या जीवनातील येणारे साधे साधे अनुभव सांगताना अनेक दाखले देत सूर्यवंशी साहेब हे मार्गदर्शन करीत असताना आपल्या इकॅम सभासदांना मनात काही प्रश्न निर्माण झाले. त्यांनी विचारले असता साहेबांनी सभासदांच्या प्रश्नांची उत्तरे सोप्या भाषेत समजावून सांगत काम करताना काही अडचण आल्यास माझ्याशी संपर्क साधावा, नक्कीच आपल्या अडचणी सोडवायचा प्रयत्न करू असे सांगितले.

R R Kabel या कंपनीच्या वतीने Head Product Marketing सिल्वासा येथील श्री.नैतिक पुनमिया यांनी आपल्या वायर्स आणि केबल्स उत्पादनाविषयी माहिती देत असताना वायर्स, केबल मधील कंडक्टर्स, इन्शुलेशन कसे चांगल्या दर्जेदार मटेरियल वापरून ISI च्या दर्जाचे तयार करण्यात आले विद्युत अपघात होऊ नये, काळाची गरज ओळखून शहरात अति उंच इमारत होत आहेत, त्या दृष्टीकोनातून FRLSH गुणवन्त वायर्स आणि केबल्स विद्युतीकरण करत असताना का बापराव्यात याची सखोल माहिती पुनमिया यांनी सभासदांना दिली.

आपल्या विद्युत क्षेत्राशी निगडित नसलेले आणि मुळचे पुणेकर आणि कॉम्प्युटर व्यवसायाशी संबंध असणारे श्री. संतोष पंडित आणि सौ नंदा पंडित यांचा शाल, श्रीफळ आणि छत्रपती शिवाजी महाराजांची प्रतिमा देऊन इकॅम पुणे विभागाकडून सत्कार करण्यात आला. त्याचे कारण गेली १५ वर्ष हे दाम्पत्य मॉरिशस मराठी बांधवांच्या संपर्कात असून छत्रपती शिवाजीमहाराज यांचा १४ फूट अश्वारूढ पुतळा मॉरिशस येथे बसवावा यासाठी प्रयत्न करत होते, त्यांच्या प्रयत्नांना यश प्राप्त होऊन एप्रिल २०२३ मध्ये पुतळा अनावरण सोहळा उपमुख्यमंत्री श्री. देवेंद्र फडणवीस साहेब यांच्या हस्ते करण्यात आला. सामाजिकतेची जाणीव ठेवून इकॅम पुणे विभाग अशा वेगवेगळया क्षेत्रातील व्यक्तींचा शोध घेवून त्यांचा सत्कार करीत असते. मॉरिशस मध्ये मराठी बांधवांना व्यवसाय करण्याकरिता भरपूर प्रमाणात संधी उपलब्ध आहे याचा आपण फायदा घ्यावा. त्यासाठी काही मदत लागल्यास आम्ही नक्कीच करू अशी ग्वाही पंडित दाम्पत्याने दिली.

२०२४ - २५ हे वर्ष इलेक्ट्रिकल कॉन्ट्रॅक्टर्स असोसिएशन ऑफ महाराष्ट्र (इकॅम) या संघटनेचे शताब्दी वर्ष आहे. त्यानिमित्ताने इकॅम महासमितीचे अध्यक्ष श्री.वामन भुरे साहेब यांनी 'विद्युत सुरक्षा' या विषयाच्या अनुषंगाने कार्यक्रम वर्षभर चालणार आहेत. सभासदांसाठी विविध विषयांवर तांत्रिक चर्चासत्रे घेण्यात येणार आहेत, २०२४ मध्ये इकॅमेक्स २४ असे भव्य विद्युत उत्पादनाचे प्रदर्शन भरविणार आहोत अशी इकॅम शताब्दी महोत्सवाविषयी माहिती दिली.

इकॅम पुणे विभागाचे अध्यक्ष श्री.अमरनाथ पाटील साहेब यांनी या वर्षभरात इकॅमची जास्तीत जास्त सभासद संख्या वाढली पाहीजे त्याकडे लक्ष वेधून सभासद वृध्दीवर मार्गदर्शन केले.

तांत्रिक समितीचे अध्यक्ष श्री.सुनील गायकवाड यांनी प्रत्येक महिन्यात सभासदांसाठी विविध विषयांवर तांत्रिक चर्चासत्र घेण्याचे

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आश्वासन दिले.

या तांत्रिक चर्चासत्रास विद्युत निरीक्षक पुणे विभागाचे पदाधिकारी, R R Kabel कॅंपनीची टीम आणि इकॅम पुणे विभागाचे सचिव श्री अनिल महाजन, उपाध्यक्ष श्री.मारुती माळी, श्री. प्रकाश जाधव, आणि संचालक मंडळ, पुणे विभागाचे माजी अध्यक्ष राजीव जतकर तसेच महासमितीचे संचालक सर्व श्री. राजेन्द्र सिन्नरकर, शिंदेकर, पवार, कोठावदे माजी महासमितीचे महासचिव श्री.मिलिंद नाईक आणि बहुसंख्येने इकॅमचे सभासद व शासन मान्यता प्राप्त विद्युत ठेकेदार उपस्थित होते.

या कार्यक्रमाचे सूत्रसंचालन इकॅम पुणे विभागाचे सहसचिव श्री.संजय कान्हेकर यांनी केले तर आभार प्रदर्शन तांत्रिक समितीचे

अध्यक्ष श्री सुनील गायकवाड यांनी केले. तसेच कार्यक्रमाची सांगता सुग्रास भोजनाने झाली.



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entec India Limited is established in year 1984 and situated in one of the industrial areas in Kolkata. The company is located approximately 16Km from Howrah station, 12Km from Sealdah station, 40Km from Kolkata Airport and 8Km from Khidirpur Dock. Mr. Om Prakash Agarwal, Mr. Raj Kapoor Bhartia, Mr. Anup Bhartia and Mr. Kailash Chand Agarwal joined in the Board of Directors. The company started manufacturing KWH energy Meters of different ratings i.e. 5-20 Amp., 5-30 Amp ,10-60 Amps ,20-100Amps etc and supplied to valued customers like CESC Ltd., West Bengal State Electricity Distribution Company limited (WBSEDCL), Assam State Electricity Board (A.S.E.B.), Tamil Nadu State Electricity Board (T.N.S.E.B.), Maharashtra state Electricity Board (M.S.E.B.) and many others power utilities in India.

Bentec India Limited had established its own Research and Development Lab in Year 2001, which enable us to rapidly and profitably introduce new products of higher quality in today's competitive market. Our experience in transforming new designs into actual products enables us to improve customer satisfaction with greater cost efficiency and implementing the latest technology.

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Certification (ISI Mark) and valid ISO 9001:2015 certification for meter manufacturing, ISO 27001:2005 for information security management system and ISO: 14001- 2015 for environmental management system, CMMI Maturity Level 3 for Software development, NABL Accredited Lab and Applied for DSIR(Department of Scientific and Industrial Research) Certificate) controlled process to test and produce quality products.

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Congratulations! Mr. Ulhas Vajre

The First Contractor to Become Charterd Electrical Safety Engineer

Mr. Ulhas Vajre, member and director of ECAM, has received the Authorization as Chartered Electrical Safety Engineer under Central Electricity Authority (Measures relating to safety and electric Supply) Regulations 2010/5A from the Chief Electrical Inspector, IE&L department, Govt. of Maha. Exam was held in Dec. 22.

About Chartered Electrical Safety Engineer

In order to minimize the Fire and shock hazards in residential, commercial, hospitality, and industrial facilities and to augment the workforce of Electrical Inspectorate, to rigorously conduct the periodical inspections of electrical installations, identify the

hazards and help mitigate those hazards, thereby minimizing the risk of potential fires, under Indian Electricity Act 2003, under Central Electricity Authority (Measures Relating to Safety And Electric Supply) Regulations 2010, updated draft Regulations 2023, mandates state governments to authorize Chartered Electrical Safety Engineers.

Salient features regarding the Chartered Electrical Safety Engineer, under draft CEA Regulations 2023 are as under:-

Regulation No. 6. Chartered Electrical Safety Engineer.-

The Appropriate Government shall authorise Chartered Electrical Safety Engineer from amongst persons having the qualification and experience as per the guidelines issued by the Authority to assist the owner or supplier or consumer of electrical installations for the purpose of self-certification under regulation 32 and regulation 45 of these regulations.

Regulation 32: Periodic inspection and testing of installations. –

(1) The periodic inspection and testing of installation of voltage above the notified voltage belonging to the owner or supplier or consumer, as the case may be, shall be carried out by the Electrical Inspector: Provided that the electrical installation below or equal to the notified voltage shall be self-certified by the owner or supplier or consumer, as the case may be.

Regulation 45: Safety provisions for electrical installations and apparatus of voltage exceeding 650 volts. Approval by the Electrical Inspector and selfcertification.-







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इकॅम नाशिक आणि महावितरण आयोजित ऊर्जा परिसंवाद



विभागाचे थ्री. बाहत्रे साहेब इकॅमचे सर्व पदाधिकारी, महाबितरण, ऊर्जा विभाग, ठेकेदार, त्यांचे कर्मचारी या सर्व सन्माननीयांच्या उपस्थितीमध्ये हा कार्यक्रम सुरू झाला. कार्यक्रमाची सुरुवात इलेक्ट्रिकल कॉन्ट्रॅक्टर असोसिएशनच्या स्लाईडशोने झाली. या स्लाईड शोमध्ये संपूर्ण माहिती प्रसारित करण्यात आली. त्यानंतर दीप प्रज्चलन करून मंचावर मान्यवर स्थानापन्न होऊन कार्यक्रमाला सुरुवात झाली. सूत्रसंचालन श्री समीर वडजे यांनी सुरू करून कार्यक्रमाचे प्रास्ताविक श्री सुरज अहिरे यांनी केले. त्यानंतर अतिरिक्त कार्यकारी अभियंता

ऊर्जा विभाग महावितरण व इकॅम, नाशिक यांच्या संयुक्त विद्यमाने दिनांक ९ जून २०२३ रोजी सायंकाळी सहा ते नऊ या वेळेत महाकवी कालिदास कला मंदिर नाशिक येथे ऊर्जा परिसंवाद संपन्न झाला. या कार्यक्रमाच्या अध्यक्षस्थानी महावितरण नाशिक परिमंडळाचे मुख्य अभियंता सन्माननीय



प्रशिक्षण व सुरक्षा श्री. राठोड यांनी सुरक्षिततेबद्दल व्याख्यान दिले. त्यानंतर प्रशिक्षण संदर्भात तसेच सुरक्षेच्या संदर्भात श्री. पाचंगे यांनी एकपात्री नाटक सादर करून सुरक्षिततेचे महत्व आणि जिवंत देखावा या नाटकातून उभा केला. त्यानंतर विद्युत निरीक्षक श्री उगले साहेब यांनी मनोगत व्यक्त केलं. त्यानंतर मुख्यअभियंता श्री. कुमठेकर साहेब यांनी अध्यक्षीय भाषण केले. त्यानंतर इकॅमचे नाशिक

श्री. दीपक कुमठेकर साहेब होते, तसेच विद्युत निरीक्षक, श्री. उगले साहेब, श्री देवेंद्र सायनेकर, सीजीएम प्रशिक्षण व सुरक्षा श्री. एकलहरे तसेच नाशिक मंडळाचे अधीक्षक अभियंता, श्री. ज्ञानदेव पडळकर साहेब तसेच इकॅम महाराष्ट्राचे अध्यक्ष श्री. वामन भुरे साहेब व महासचिव श्री. देवांग ठाकूर, नाशिक महानगरपालिका ऊर्जा विभागाचे कार्यकारी अभियंता श्री. गायकवाड, सां. बांधकाम विद्युत



विभाग अध्यक्ष श्री सचिन फडतरे यांनी या कार्यक्रमाचा समारोप केला. अशा पद्धतीने हा कार्यक्रम राष्ट्रगीताने संपन्न झाला. कार्यक्रमाच्या समामीनंतर आलेल्या सदस्यांना कुपन देऊन गिफ्ट देण्यात आले व या कार्यक्रमाची सांगता करण्यात आली. सदर कार्यक्रमाचे प्रायोजक केंटर केबलचे श्री. भाविक भाई व नाशिक केबल औड इलेक्ट्रिकल्सचे श्री. प्रमोद सोनावणे यांचे सहकार्य लाभले. तसेच कार्यक्रमाचे नियोजन नाशिक टीमने यशस्वीरित्या पूर्णत्वास नेले.

कार्यक्रमास नाशिक रिजनचे चेअरमन - सचिन फरतडे, सचिव - सुशिल भुरे, मा. चेअरमन रावसाहेब रकिबे, खजिनदार- संदिप शिंदे, संचालक - मनोज पवार, धनंजय पाटील, निमंत्रित- समर्थ निकम, संदिप धांडे, सुरज अहिरे, विशेष निमंत्रित- समाधान पाटील, अमेय कण्णव, प्रमोद सोनवणे, भरत देवरे, नितीन गांगुर्डे, संदीप कुंडारिया, सुनिल सजनुले, विलास गावडे, अनिरुध कुर्तडकर, विशेष सल्लागार - सुनिल भुरे, शैलेंद्र गुजर, देवांग ठाकुर हे सर्व मान्यवर आवर्जून उपस्थित होते.

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CORPORATE OFFICE 150 Upen Banerjee Road, Kolkata 700060 Email - info@bentecindia.com

MUMBAI OFFICE - BENTEC INDIA LTD,

504, Aditya Banara Heritage, Behind Orbit Mall, Mind Space off Link Road, Malad (West), Mumbai - 400064 (Maharashtra), Phone - 022 28712686/87, Mobile - 09324287968/ 7303928980

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Wires and Cables : A Critical Component for India's Development

Www.ires and cables are an integral part of India's rapidly growing infrastructure, and their importance in the country's development cannot be overstated. With the Indian government's focus on building world-class infrastructure, the demand for wires and cables is expected to grow significantly in the coming years.

India's electrical equipment industry is one of the fastest-growing in the world, with a market size of around \$42 billion in 2020. The demand for wires and cables is driven by various sectors, including power generation, transmission, distribution, renewable energy, construction, and automotive. The Indian government's ambitious plans to electrify rural areas, promote renewable energy, and develop smart cities are expected to further fuel the demand for wires and cables.

One of the key trends in the Indian wires and cables market is the shift towards advanced technologies that offer higher efficiency, reliability, and safety. As the country embraces digitalization and automation, the demand for smart wires and cables that can communicate with other devices and systems is expected to increase. These wires and cables can help optimize energy consumption, reduce downtime, and improve safety and security.

Another trend in the Indian wires and cables market is the adoption of environmentally friendly materials and manufacturing processes. As the world moves towards a sustainable future, the demand for wires and cables made from recycled materials or biodegradable polymers is expected to grow. The use of eco-friendly materials can help reduce the carbon footprint of the wires and cables industry and promote a cleaner and greener environment.

The Indian wires and cables market is highly competitive, with both domestic and international players wanting for a share of the market. Some of the leading Indian companies in the industry include Polycab, Havells, Finolex, and KEI Industries. These companies are investing in research and development to develop innovative products and solutions that meet the evolving needs of the market.

In conclusion, wires and cables are a critical component of India's development, and their importance is only set to grow in the coming years. As India continues to invest in infrastructure, electrification, and smart cities, the demand for wires and cables will rise, creating significant opportunities for the industry. By embracing advanced technologies, ecofriendly materials, and innovative solutions, the Indian wires and cables industry can play a pivotal role in shaping India's future.

Regards, Nitin Aher, Director. Rulka Electricals Pvt. Ltd. www.replservies.com https://www.linkedin.com/company/rulka-

electricals-pvt-ltd/



The Central Electricity Authority (CEA) has notified guidelines for field efficiency test in hydropower plant (HPP) including pumped storage plants (PSPs).

The objective of the guideline is to guide hydropower generating utilities in the country, to provide a uniform approach for carrying out said tests, its acceptance and to minimise dispute between project authority and the supplier of the units in the project. This guideline mainly focuses on defining the terms and quantities to be used in the process, validity, the period for acceptance of test, agency to perform the test, to specify methods and ways of measuring quantities involved to ascertain the hydraulic/ electrical efficiency of the units and determination of fulfilment of contract guarantees and penalisation in case of failure of its fulfilment. This guideline will be applicable to any size and type of unit comprising generator -motor and impulse/ reaction turbine, and pump-turbine above unit size of 5 MW.

इकॅम धुळे – नंदुरबार विभागातर्फे टेक्निकल सेमिनार



अध्यक्ष भाषणात ECAM शताब्दी वर्षांबद्दल थोडक्यात माहिती देऊन प्रत्येक सभासदाने ECAM शताब्दी वर्षांत सहभाग घ्यावा असे सांगितले. तसेच नगर येथून आपले HO संचालक श्री. अमित गरुड ECAM Power Supply Commitee Chairman यांनीही उपस्थिती दिली व आमच्या विभागातील MSEDCL मध्ये काम करणाऱ्या सभासदांच्या अडचणी जाणून घेतल्या व मार्गदर्शन केले व विभागीय अध्यक्ष या नात्याने मी सर्वांचे आभार मानले व नंतर सर्व मान्यवर व सर्व सभासदांनी भोजनाचा आस्वाद घेतला व कार्यक्रम संपला सर्व मान्यवरांचे मी शतश: आभारी आहे.

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विनीत सर्व संचालक मंडळ ECAM धुळे-नंदुरबार विभाग.

दि. ०६/०४/२०२३ रोजी मासिक मिटिंगमध्ये आम्ही techincal सेमिनार घेण्याचे ठरविले त्याप्रमाणे आम्ही दि. २३/०४/२०२३ techincal सेमिनार घेण्यात आला त्यामध्ये १) श्री राहुलजी मुंदडा Chartered Accountant यांनी विविध GST, IT, MSME विषयी मार्गदर्शन केले २) श्री उल्हास वज्रे नवी मुंबई CESE यांनी सुरक्षा व विद्युत पुरवठा संबधित उपाय (CEA Safet Regulations 2010) यावर अत्यंत उपयुक्त व सभासदांना समजेल अशी माहीती दिली ३) श्री अरविंद गद्रे, मुंबई (Ex.Chairman Ecam कोकण Rigion यांनी KVAh बिलिंग विषयी माहिती दिली तसेच सदर कार्यक्रमाचे अध्यक्ष पद ECAM HO Voice Chairman श्री उमेश रेखे बांनी भूषविले व त्यांनी





Basics of Cable Testing

By Mr. Naved Shaikh Sr. Engineer- Marketing Department

Cables are essential components of electrical systems primarily responsible to transmit power. To ensure the quality and reliability of these cables, comprehensive testing & measurement is crucial. Testing is vital in identifying potential defects, assessing performance, and verifying compliance with industry standards. This article explores the importance of cable testing and highlights some of the important testing methods.

Cables would generally require multiple types of test whether they are in the production phase, commissioning phase and when they are in service. Some of the general test are as mentioned below.

- Continuity & Resistance
- Insulation Resistance
- High Voltage Testing/ Hipot
- · Conductor Resistance & Resistivity
- Tan Delta & Capacitance
- Very Low Frequency
- · Partial Discharge
- · Cable Pre-Fault Locating
- Underground Cable Route Tracing
- Underground Cable Fault Locating
- 1. Insulation Testing :

Insulation resistance test measure's the resistance of the insulation thus indicating the healthiness of the insulator in the cable. The voltage is applied across the insulation and resultant current is measured to calculate the insulation resistance.

2. Continuity and Resistance Testing :

These tests help in assessing the cable's ability to conduct electricity efficiently. Continuity testing, typically performed with a low-resistance ohmmeter, verifies the presence of an uninterrupted conductive path within the cable.

3. Capacitance and Dielectric Loss Testing :

These tests indicate the deterioration & ageing of the insulation. Capacitance refers to the cable's ability to store electrical energy.

Dielectric loss refers to the energy dissipated as heat during operation. By measuring power factor and dielectric loss, potential weaknesses or aging of the insulation material can be identified, allowing for proactive maintenance or replacement.

4. Hipot Testing :

High-potential test, is also known as the Dielectric-Withstand test is used to evaluate the insulation condition of the test object. It ensures that current will not flow from one point to another and indicates the ability of the insulation to withstand high voltage and over voltage transient.

5. Conductor Resistance & Resistivity Testing :

Electrical resistivity is a basic material property that quantifies a material's opposition to current flow; it is the reciprocal of conductivity. The resistivity of a material depends upon applied DC current by measuring the voltage resultant resistance is calculated. The resistivity is calculated from geometric factors, the source current, and the voltage measurement.

6. Partial Discharge Testing:

It is an electrical discharge that does not completely bridge the gap between two electrodes. Partial Discharge activity provides evidence that an asset is deteriorating in a way that is very likely to lead to failure.

7. Very Low Frequency Testing:

VLF testing is a method for verifying the integrity of the cable

insulation for medium voltage & high voltage cables.

It is a withstand test usually carled out at frequency range between 0.1hz to 0.01hz instead of 50/60hz for a specified time.

8. Cable fault location

It helps in identifying and pinpointing faults in cables. Locating cable faults minimizes the downtime, reducing repair costs, and restoring the functionality of electrical systems. Different methods for different type of faults can be utilised as below,

A. Time Domain Reflectometry: TDR is an electrical equivalent of radar & is used for locating cable faults typically open circuits, discontinuities & short circuit. A electrical pulse is sent into the cable and the time taken for the reflected pulse to return is measured where the time delay and magnitude of the reflected pulse indicates the distance to the fault.

B. Impulse Current Method: The ICM is the conventional location method for high resistive cable faults in very long cables. A surge generator/thumper is coupled to a TDR via an inductive coupler. The breakdown in the fault generates a current impulse, which travels along the cable sheath between the surge generator/thumper and the cable fault causing reflections that are detected by the TDR.

C. Bridge Method: The bridge method is based upon the principle of the Wheatstone bridge, in which resistances of different cable sections are being balanced to find the location of the fault. The measuring circuit according to Murray requires an additional healthy core with the same diameter and conductor material as the faulted core. A linking bridge is connected at the far end of the cable and the bridge is then balanced to determine the distance of the fault.

D. Thumping Method: The thumping method is effective for locating high-impedance faults, such as cable breakdowns or insulation faults. It involves applying a high-voltage impulse to the cable and listening for the acoustic signal generated at the fault location. By using acoustic detectors or geophones, the fault position can be determined.

E. Arc Reflection Method: The arc reflection method of fault prelocating combines the use of a TDR (cable radar) and a surge generator (thumper)coupled through an arc reflection filter. This technique substantially reduces the amount of high voltage exposure to the cable, preventing the initiation of new faults, which will surface after the cable is put back into service.

It's important to note that the choice of fault location technique depends on various factors, including the type of cable, fault type, cable length, and available equipment. Experienced technicians and specialized fault location instruments are typically required to accurately locate cable faults. The selection of the most suitable method for a specific situation will help expedite repairs and minimize downtime in electrical systems.

Motwane specializes in providing expert solutions including Test & Measurement products, cable fault locators, IoT-based products like IoTx, oil testing services, Substation testing services.

For any further technical details, consult with our technical expert Er. Naved Shaikh at shaikh naved@motwane.com Website : www.motwane.com

OMG! One World, One Sun, One Grid?



Deserting engineering after a year in a factory, Amitabha Banerjee did an MBA in the US and returned to India. Choosing work-to-live over live-to-work, he joined banking and worked for various banks in India and the Middle East. Post-retirement, he returned to his hometown Kolkata and is now spending his golden years travelling the world, playing bridge, befriending Netflix & Prime Video and writing in his wife's travel blog.)

Of course, you know what OMG means, but "One World, One Sun, One Grid"?

It means powering the whole world with solar electricity through a unified electric grid.

You may already be aware that only a small fraction of the earth's land surface is sufficient space for installing enough solar plants to power the whole world 24/7. There's no need to use up arable or populated land.

The space required for all these solar plants would amount to only 20% of the total area of the biggest deserts in the world (area in million sqkm—square kilometres)—Sahara (9.0), Arabia (2.3), Gobi (1.0), Australia (0.65), USA (0.7) and Patagonia (0.6).

If you take my word for it and don't want to know the calculations behind these statements, please skip the next paragraph.

(The total electricity consumed by the whole world is about 25mn (million) GWH (giga-watt-hours), or about 685,000 GWh per day. Assuming that solar plants operate six hours a day at full-rated capacity, this would need solar plants with a total capacity of







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about 114,000 GW. Generating this amount of power from solar power plants will require 2.85mn sqkm of the desert for installing solar panels.)

If you look at the map of the world and spot these big deserts—in Australia, China (Gobi), Africa (Sahara) and North/ South America - you will notice that they are located in different time zones, so that at any given hour of the day at least one of them would be in daylight. Ultra-large solar plants in these deserts, supplemented by smaller installations scattered around the globe, will generate enough electricity to power areas that are in the 6am –10pm period.

Okay, so enough solar power is possible, but how to send it around the world?

Every country has an electricity grid covering its entire area. Power plants feed electricity into the grid, and consumers draw power from it. If one country has a massive surplus of power due to its mega solar plant in the desert, it needs to pass on the surplus electricity to the grids of other countries.

For this to happen, grids have to be connected to one another all over the world, creating one worldwide power grid—the G in OWOSOG. This will make electricity produced anywhere in the world available at any other place where it is needed.

The question is: How?

Moving huge quantities of electricity over land is fairly easy, and the technology is well developed. Alternating current (AC) produced by power plants can be stepped up to very high voltages, such as 132,000 volts, and sent along overhead (non-insulated) power lines with fairly small losses.

But sending electricity across an ocean is much more problematic.

You can't build an overhead power line across an ocean. Hence, it has to be an undersea cable. But you can't send current through a bare wire under the water. It has to be an insulated cable.

Therein lies the problem.

If you send AC power through an insulated cable over long distances, capacitance develops within the cable, which causes substantial power losses. There is no such problem with DC (direct current) power transmission. Hence, the other option is to convert high-voltage AC power into DC at one end, send it through the cable, and convert it back to AC at the other end. Unfortunately, power losses occur here, too.

Obviously, there are technical issues and, therefore, higher costs. That is why undersea power

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Revolutionizing Home Comfort: The Rise of BLDC Fans



Introduction :

In recent years, the market for ceiling fans has witnessed a significant evolution with the emergence of Brushless DC (BLDC) fans. These innovative and energy-efficient appliances have revolutionized the way we experience comfort in our homes. By employing advanced technology, BLDC fans have surpassed traditional fans in terms of performance, energy efficiency, and durability. This article explores the features, benefits, and applications of BLDC fans, shedding light on why they are rapidly gaining popularity among homeowners worldwide.

1. What are BLDC fans?

BLDC fans are an advanced variation of traditional ceiling fans that utilize brushless DC motors to drive the blades. Unlike conventional fans that use AC motors and require brushes for commutation, BLDC fans eliminate the need for brushes, resulting in a more efficient and durable design. By employing electronic circuitry to control the motor's operation, BLDC fans provide precise speed control and improved energy efficiency.

2. Energy efficiency:

One of the key advantages of BLDC fans is their exceptional energy efficiency. Traditional ceiling fans often consume significant amounts of electricity, leading to high energy bills. BLDC fans, on the other hand, operate on much lower power consumption without compromising on performance. Thanks to their brushless motors, these fans convert a higher percentage of electrical input into useful airflow, making them up to 70% more efficient than conventional fans. By choosing BLDC fans, homeowners can enjoy a comfortable living space while reducing their carbon footprint and saving money.

3. Silent operation:

BLDC fans excel in providing a peaceful and quiet environment. The brushless motor technology eliminates the mechanical friction and humming noise associated with traditional fans. This makes BLDC fans an ideal choice for bedrooms, libraries, and other areas where a tranquil atmosphere is desired. By eliminating distractions, these fans enhance relaxation and improve sleep quality.

4. Variable speed control:

BLDC fans offer precise speed control, allowing

users to select their desired airflow intensity. With multiple speed settings, homeowners can easily adjust the fan's speed to match their comfort requirements. Whether it's a gentle breeze on a cool evening or a strong airflow on a hot summer day, BLDC fans deliver personalized comfort at the touch of a button.

5. Remote control and smart features:

Many BLDC fans come equipped with remote controls, enabling users to conveniently operate the fan without getting up from their seat. Additionally, some models offer smart features, such as compatibility with voice assistants or integration with home automation systems. These smart capabilities allow users to control the fan using voice commands or smartphone apps, enhancing convenience and seamlessly integrating with modern smart homes.

6. Durability and low maintenance:

BLDC fans are built to last. The absence of brushes in the motor design reduces wear and tear, resulting in a longer lifespan compared to traditional fans. Additionally, the elimination of mechanical friction reduces the need for regular maintenance, making BLDC fans a hassle-free appliance for homeowners. With proper care, these fans can provide years of reliable and efficient performance.

7. Applications and versatility:

BLDC fans are not limited to residential applications alone. They find extensive use in commercial spaces, offices, hotels, restaurants, and other public places. Their efficient operation and superior airflow make them suitable for large rooms and areas with high occupancy. BLDC fans are available in various sizes and designs, allowing users to choose the style that complements their interior decor.

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cables are not frequently seen. The biggest one is the North Sea Link, connecting Norway and the UK through a 720km cable that carries 1.4GW.

But, sending hundreds, even thousands, of GW across the Atlantic, spanning a distance of over 5,000km and sea depth of over 4km, is a much bigger challenge.

But one has to make a start somewhere!

India has announced a plan to consider linking the grids in India and UAE/ Saudi via an undersea power cable. The distance to be covered is quite large—about 1,400km. The quantity of power to be transmitted is also likely to be very large—100+GW. Of course, it is just a plan so far. A feasibility study has to be done first, and then only the actual work may start.

But, just consider the immense possibilities!

Saudi Arabia is two time zones away from India. In fact, sunset at Tinsukia in India is 3.5 hours ahead of sunset in Jeddah, Saudi Arabia. The sun continues to shine in Jeddah well after most people have finished dinner in Assam.

Move further west, from Saudi Arabia to the Sahara, and solar power can be generated and sent to India until people in the eastern part of India are asleep.

If you think about it, it is clear that generating power by burning fossil fuel, and destroying the environment in the process, is utter madness when the sun sends us far more power than we need, all for free!

So, OWOSOG is imperative—it is a matter of time. It will not happen in our lifetimes, but our grandchildren will see it in their lifetimes.

Don't believe me? When I was in school, only a few families had telephones and nobody, even in their wildest dreams, could imagine seeing the face of a person in the USA while having a phone conversation, and that too anytime you like, free of cost. Undersea power cables are already there – It is just a matter of scaling up.

Of course, there has to be the money and the political intent to invest in such a long-gestation project, as well as cooperation between countries regarding tariff, access, upkeep of equipment, etc. But, given the will, it can become a reality in the not-toodistant future.

And I am glad India has taken a step, albeit a tiny one, in this direction.



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tor (Electrical and personal safety division)



Previous Dues of Electricity Can Be Recovered from Auction Purchasers, Rules SC

The Supreme Court (SC) has ruled that electricity dues of the previous owner of a property can be recovered from an auction purchaser or the subsequent owner.



A bench headed by chief justice of India (CJI) DY Chandrachud and comprising justices Hima Kohli and PS Narasimha said: "A condition enabling the distribution licensee to insist on the clearance of the arrears of electricity dues of the previous consumer before resuming electricity supply to the premises is valid and permissible under the scheme of the 2003 Act (Electricity Act 2003)."

The apex court was examining the issue raised in a batch of appeals, whether the arrears of unpaid electricity dues outstanding from the erstwhile owner can be claimed from the subsequent owner, who has acquired the property in proceedings initiated to enforce mortgages or to pay off the dues of creditors.

The electric utilities had argued that the duty to supply electricity under Section 43 of the 2003 Act is not absolute and, in case there are outstanding dues of the previous owner, they are entitled to refuse a new connection or decline to commence the supply of electricity until the dues owed by the previous owner are cleared.

On the contrary, the auction purchasers have urged that Section 43 obligates the distribution licencees to supply electricity when demanded by the auction purchaser. It was argued that the provisions of the Electricity Act 1910 and the Electricity (Supply) Act 1948, do not empower the electricity board to recover the electricity dues of the previous owner or occupier from the new owner or occupier of such premises and the liability to pay electricity dues is only on the person to whom the supply of electricity is made.

The bench noted that the duty to supply electricity under Section 43 is only with respect to the owner or occupier of the premises, and not the premises, as it is the owner or occupier who has the statutory right to 'demand' electricity for the premises under their use or occupation.

"Further, it is the applicant who has to fulfil all the statutory conditions laid down under the 2003 Act to become entitled to get supply of electricity to their premises. The applicant has to pay the necessary charges and comply with all terms and conditions as determined by the appropriate commission for the supply of electricity," it said.

The bench said: "The duty to supply electricity under Section 43 is with respect to the owner or occupier of the premises. The 2003 Act contemplates a synergy between the consumer and premises. Under Section 43, when electricity is supplied, the owner or occupier becomes a consumer only with respect to those particular premises for which electricity is sought and provided by the electric utilities."

CJI Chandrachud, who authored the 179-page judgement on behalf of the bench, said: "For an application to be considered as a 'reconnection', the applicant has to seek supply of electricity with respect to the same premises for which electricity was already provided. Even if the consumer is the same, but the premises are different, it will be considered as a fresh connection and not a reconnection."

The bench noted that the duty to supply electricity under Section 43 of the 2003 Act is not absolute, and is subject to the such charges and compliances stipulated by the electric utilities as part of the application for supply of electricity. "A condition of supply enacted under Section 49 of the 1948 Act requiring the new owner of the premises to clear the electricity arrears of the previous owner as a precondition to availing electricity supply will have a statutory character," said the bench.

The bench noted that Electricity Supply Code providing for recoupment of electricity dues of a previous consumer from a new owner have a reasonable nexus with the objects of the 2003 Act. It said the implication of the expression 'as is where is' basis is that every intending bidder is put on notice that the seller does not undertake responsibility in respect of the property offered for sale with regard to any liability for the payment of dues, like service charges, electricity dues for power connection, and taxes of the local authorities.

Conclusion "In the exercise of the jurisdiction under Article 142 of the Constitution, the electric utilities have been directed in the facts of cases before us to waive the outstanding interest accrued on the principal dues from the date of application for supply of electricity by the auction purchasers."

Adani Transmission gets shareholders' approval to raise up to Rs 85 billion

Adani Transmission Limited has received shareholders' approval to raise up to Rs 85 billion through issuance of equity shares on qualified institutional placement basis.

The company had sought shareholders' approval through postal ballot to raise up to Rs 85 billion by way of qualified institutional placement through issuance of equity shares and/or other eligible securities to eligible investors on May 15, 2023.

NRL signs MoA with IFSA and Kaziranga University for research on wind energy potential in north-east India

Numaligarh Refinery Limited (NRL) has signed a memorandum of agreement (MoA) with the Institute of Frontier Science and Application (IFSA) and Kaziranga University to carry out research on the assessment of wind energy potential in north-east India.

The project aims at developing bankable wind energy assessment over Assam in a riverine environment using mobile lidar observations for three years. According to the MoA, Kaziranga University, in technical collaboration with IFSA and with funding from NRL, will implement the project.

KPI Green Energy receives LoI for a hybrid green energy project

KPI Green Energy Limited has received a letter of intent (LoI) for executing wind-solar hybrid power project of 40 MW capacity from Anupam Rasayan India Limited, Surat under captive power producer business segment of the company.

The 40 MW capacity comprises of 21.50 MW of wind and 18.50 MW of solar capacity. The project is scheduled to be completed in 2023-24, in various tranches. This largest single LoI for the 40 MW hybrid power project is a significant milestone for the company.





इलेक्ट्रिक व्हेईकल्स येणार! आपण तयार आहोत का?

- पर्यावरणाचा ऱ्हास, बदलते हवामान व वाढते तापमान, प्रदूषित हवा इ. समस्या जागतिक व स्थानिक पातळीवर किती भेडसावत आहेत हे आता वेगळे सांगायची गरज नाही. खनिज तेल व कोळसा तयार होण्यास लागणारा वेळ व ते वापरले जाण्याचा वेग यांचे प्रमाण व्यस्त असल्यामुळे त्याचा वापर कमी व्हावा असे जाणकारांचे मत आहेच. ह्याचा समतोल राखला गेला तरच पुढच्या पिढ्यांसाठी आपण काहीतरी चांगले मागे ठेवले असे होईल.
- या सर्वांबर काही प्रमाणात पर्याय म्हणून इ. वाहनांची निर्मिती झाली. डिजिटल इलेक्ट्रॉनिक्स व संगणक तंत्रज्ञानातील प्रगतीचा फायदा ही वाहने अधिक सुरक्षित करण्यासाठी होत आहे. इ वाहने येणार येणार म्हणता २०२२-२३ मध्ये भारतात १० लाख वाहने विकली गेली. स्थानिक पातळीवर प्रदूषण कमी करणे, देखभालीचा खर्च खूपच कमी, अधिक आरामदायी प्रवास असे भरपूर फायदे असल्यामुळे ह्या प्रकारची वाहने येणार व वाढत जाणार.
- या वाहनाच्या वापरासंबंधी सामान्य माणसांना पडणारे मुख्य प्रश्न व त्याबद्दलची माहिती देण्याचा प्रयत्न या लेखात करत आहे. ही वाहने वाढत राहिली तर त्यांच्या रोजच्या चार्जिंगची सोय काय?
- राष्ट्रीय स्तराबर उपलब्ध माहिती नुसार सध्या भारतात विद्युत निर्मितीची 'इन्स्टॉल्ड कर्पॅसिटी ' ४१२ गिगावॅट इतकी आहे व भारताची जास्तीत जास्त गरज ३०० गिगावॅट असते. यापैकी ११२ गिगावॅट 'क्लीन एनर्जी' प्रकारात मोडते व यापैकी ६२ गिगावॅट 'सौर ऊर्जा' आहे. सध्या सौर ऊर्जेचा पुरेपूर उपयोग व्हावा म्हणून 'जलविद्युत सयंत्रे' दिवसा कमी वापरली जातात. (या माहितीचा स्रोत https://posoco.in/reports/monthlyreports/monthly-reports-2022-23/_हा आहे. वाचक अधिक माहिती देखील मिळवू शकतात).

Kwh युनिट्सची गरज/किलोमीटर	१०० किलोमीटरसाठी लागणारी kwh वुनिट्स ३.३ १९		
0,033			
0.89			
0,05	Ę		
શ.રૂબ્	१३५		
	गरज/किलोमीटर ०.०३३ ०.१९ ०.०६		

वेगवेगळ्या इ.व्हेहिकल्सची प्रमाणित विद्युत ऊर्जेची गरज खालील प्रमाणे

 या सर्वांचे व केंद्र सरकारच्या नीती आयोगाने २०३० पर्यंत भाकीत केलेल्या सर्व प्रकारच्या सर्व इ. वाहनांच्या चार्जिंगचे गणित मांडल्यास असे दिसते की चार्जिंगची राष्ट्रीय स्तरावरची गरज साधारण ६० गिगावॅट असणार



नरेन्द्र दुवेदी

आहे. उपलब्ध ऊर्जा ४१२ गिगावॅट, सध्याचा वापर ३०० गिगावॅट हे पाहता सादर चार्जिंगची गरज भागवण्याची क्षमता भारतात आजच आहे. २०३० पर्यंत सौर ऊर्जा निर्मिती क्षमता याच्या कितीतरी पट वाढवण्याचे नियोजन आहे. यासवाँचा विचार करता वाहने वाढत गेली तर चार्जिंगची सोय होईल का? तर नक्की होईल.

- इलेक्ट्रीसिटी रेग्युलेटरी कमिशन व सरकारी यंत्रणा वेगवेगळ्या स्तरांचर विचारमंथन करून हे चार्जिंग शक्यतो सौर उर्जेवरच होईल अशी व्यवस्था करत आहेत. आपल्या भारताला वर्षातील ८ ते १० महिने सौर ऊर्जेची देणगी निसर्गाने दिलेली आहे म्हणून हे शक्य आहे. आपण पेट्रोल पम्पावर पेट्रोल भरतो तसे चार्जिंग स्टेशनवर बॅटरी बदलून देता येतील का यावर देखील विचार सुरु आहे.
- घराच्या व सोसायटीच्या पार्किंगमध्ये अशी चार्जिंगची सोय होईल का?
- घरी चार्जिंग करण्यासाठी जरूर पडल्यास 'कनेक्टेड लोड ' वितरण कंपनीकडून वाढवून घ्यावा लागेल. विद्युत सुरक्षेविषयी जरूर ती काळजी घेण्यासाठी सरकारी नोंदणीकृत विद्युत ठेकेदाराकडून संबंधित वायरिंगचे काम करून घ्यावे. सोसायटी पदाधिकाऱ्यांनी यासंबंधी अधिकृत सूचनापत्रक तज्ञ व्यक्तींचे मार्गदर्शन घेऊन करून घ्यावे व संबंधित सभासदाकडून त्याची अंमलबजावणी काटेकोरपणे करून घ्यावी.
- एव्हढी विद्युत ऊर्जा वापरली जाणार असेल तर ग्लोबल वॉर्मिंग कार्बन डायऑक्साईड उत्सर्जन वगैरेचे कसे होणार?
- आधी सांगितल्याप्रमाणे भारत हा जगातील काही देशांमध्ये मोडतो जेथे मुबलक सौर ऊर्जा उपलब्ध आहे. केंद्र सरकारने २०३० पर्यंत ५०० गिगावॅट 'ग्रीन एनर्जी' जनरेशनचे लक्ष निश्चित केले आहे. यातील ११२ गिगावॅट सध्या अस्तित्त्वात आहे. हे ५०% साध्य झाले तरीही आपली इ. बाहने सौर उर्जेवर चालतील असे म्हणता येईल व यामुळे ग्लोबल वॉमिंग कार्बन डायऑक्साईड उत्सर्जन हे प्रश्न जास्त बिकट होणार नाहीत.
- इ. व्हेहिकल वापरणे व घराजवळ चार्ज करत ठेवणे कितपत सुरक्षित आहे?
- वरती वर्णन केल्याप्रमाणे चार्जर काळजीपूर्वक बसवले ब वापरले तर त्यांचा वापर घराजवळ देखील पूर्णपणे सुरक्षित

Published By Campaign

आहे. वर्षानुवर्षे आपण पेट्रोलसारखा ज्वालाग्राही पदार्थ भरलेल्या गाड्या घराजवळ व पार्किंगमध्ये ठेवतोच आहोत.

- इ. वाहने व त्याच्या बॅटरी डिजिटल तंत्रज्ञान वापरून पूर्ण सुरक्षित करण्यात आलेली आहेत व सातत्याने त्यात सुधारणा चालू आहेत. यासंबंधी यथायोग्य काळजी, जरूर असेल तेथे तज्ज्ञांचे मार्गदर्शन घेऊन शिस्त पाळली तर यासंबंधीचे अपधात शून्यावर आणणे सुद्धा शक्य आहे. सदर इ. वाहने नव्या पिढीकडे जाणार असल्यामुळे या सर्वांची अपेक्षा ठेवण्यास हरकत नसावी.
- नव्याने बांधली जात असलेली घरे व कार्यालये अश्या वाहनांच्या चार्जिंगची सोय करूनच तयार होतील का?

डिजिटल प्रोटोकॉल्स व चार्जर कनेक्टर संबधीचे नियम केंद्र सरकारने आधीच तयार केलेले आहेत. यासंबंधी कोणतीही तडजोड न करणे व फक्त मान्यताप्राप्त चार्जर वापरणे हि काळजी आपण घेणे गरजेचे आहे. बॅटरीची किंमत गाडीच्या किमतीच्या ४०% वा त्यापेक्षा जास्त असल्यामुळे बहुदा हे काळजीपूर्वक केले जाईल असे वाटते. अन्यत: बॅटरी खराब होण्याचा धोका संभवतो.

 अशी चार्जिंग स्टेशन्स आपल्याकडेपण उपलब्ध होऊ लागली आहेत. नुकतेच महावितरणने त्यांच्या पुण्यातील सर्व उपकेंद्रामध्ये अशी सोय उपलब्ध करून देण्यास सुरवात केली आहे. पुणे महानगरपालिकेने ६० स्टेशन्स उभी



- अशी अपेक्षा ठेवण्यास हरकत नसावी. सध्या महानगरपालिका 'इमारत बांधणी परवाना' देताना इ. वाहन चार्जिंगची सोय अनिवार्य करीत आहेत. यासंबंधीच्या कायदेशीर तरतुदी परिपक होण्यास थोडा अवधी जावा लागेल.
 पब्लिक चार्जिंग म्हणजे नक्की
- काय ? यरोप व अमेरिकेमध्ये मध्यवर्ती व्यापारी संकुले व इतर सार्वजनिक जागांमध्ये व्यावसायिक स्तरावर काही कंपन्या इ-वाहनांसाठी चार्जिंगची सुविधा उपलब्ध करून देतात. असे चार्जर इंटरनेट चरून 'बुक' करता येतात . समजा तुम्ही एखाद्या शॉपिंग मॉलमध्ये तास दोन तास खरेदी करत फिरणार असाल तर जाण्यापूर्वीच तिथे उपलब्ध चार्जरचा 'टाइम स्लॉट' तुम्ही इंटरनेट वरून बुक करून जाऊ शकाल. तुमचे शॉपिंग होईपर्यंत गाडी चार्ज झालेली असेल, अशा चार्जर व गाडीमध्ये डिजिटल संपर्क होऊन जसे हवे तसे चार्जिंग आपोआप होईल. अशा चार्जिंगला पब्लिक चार्जिंग

असे म्हणतात. यासंबंधीचे



करण्याचा संकल्प सोडला आहे.

- मोठ्या बसेस व ट्रक इ.च्या चार्जिंगची काय व्यवस्था होणार?
- वर वर्णन केल्याप्रमाणे यासाठी पब्लिक अथवा खाजगी चार्जिंग स्टेशन्स निघतील. पुणे महानगरपालिका सध्या १०० पेक्षा जास्त इ-बसेस चालवते आहे. यासाठी चार्जिंग सम्बधी सध्या कोणतीही तक्रार ऐकू येत नाही.
- दूरच्या रस्त्यावर गाडी घेवून गेले तर चार्जिंग कुठे करणार?
- खुप मोठ्या प्रमाणावर यासंबधीचे प्लॅनिंग सध्या चालू आहे. सर्व विद्युत वितरण कंपन्यांना या वाहनांचे चार्जिंग हि एक मोठी व्यावसायिक संधी आहे. महामार्गांवर चार्जिंग स्टेशन व हॉटेल अशी एकत्रित उभी असलेली संकुले लवकरच दिसू लागतील. ही सर्व इंटरनेट कनेक्टेड असतील व त्यांचे पूर्वलक्षी बुकिंग शक्य असेल. ५ ते ६ वर्षांपूर्वी ण्झब पेमेंटची सोय इतक्या ठिकाणी असेल व

मोबाईलवरून सहज पैसे फिरवता हे जसे खरे वाटले नसते तसेच हे आहे. आमच्या पिढीने एकाच आयुष्यात पोस्टात जाऊन डिमांड कॉल बुक करण्यापासून ते जगभर व्हिडीओ कॉल करणारा मोबाईल फोन खिशात घेऊन फिरण्यापर्यंची स्थित्यंतरे मागच्या फक्त ४० वर्षात बघितली व वापरली देखील – या सुखद अनुभवरून इ-वाहनांचे यश दृष्टीपथात आहे असा विश्वास वाटतो.

- एकूणच स्वयंचलित वाहनांमध्ये 'इ वाहन' हा एक उत्तम पर्याय उपलब्ध होणार हे नक्की.
- 'कॉस्ट ऑफ ओनरशिप' च्या बाजूने पेट्रोल वाहन व इ वाहन असा थोडा विचार करून बघू यात. यावरून इ वाहन वापरणे महाग कि स्वस्त याचा थोडा अंदाज येईल. 'हॅच बॅंक' श्रेणीतील दोन गाड्यांची तुलना पाहू

सर्व आकडे रु	नेहमीचे पेट्रोल चाहन	ই ব্যাচন ইড়০০০০০		
ऑन रोड किंमत १००००० किलोमीटर (५ वर्ष) साठी,	2230000			
पेट्रोल खपत १२ किलोमीटर /लिटर, पेट्रोलचा दर रु ११० प्रति लिटर १००००० किलोमीटर (५ वर्ष) साठी, विजेची	९१७०००			
गरज 0.18 kwh /km, विजेचा दर १२ प्रति kwh		२१६०००		
एकूण मूळ किंमत व ५ वर्ष गाडी चालवण्याचा	5886000	* ? * E 0 0 0		
अपेक्षित रिसेल किंमत	300000	Ę00000		
'कॉस्ट ऑफ ओनरशिप य वर्षा अखेरीसङ्ग	888.0000	きまき長ののの		

५ वर्षांनंतर दुसऱ्या मालकाला इ-वाहनाची बॅटरी बदलावी लागू शकते. नवीन बॅटरीची किंमत आत्ता उपलब्ध माहितीनुसार ५००००० रुपये असणार आहे.

इ-वाहनाला देखभाल कमी लागणार हे नकी परंतु या वाहनाचे मुख्य तीनच भाग आहेत - बॅटरी , इन्व्हर्टर व मोटर. यामध्ये काही बिघाड झाल्यास बहुतेक ते संपूर्ण बदलावे लागतील. बॅटरी सोडून बाकीच्या वस्तूंच्या किमती सध्या माहित नाहीत. हे सोडून बाकी काही मेकॅनिकल पार्टस गाडीत आहेतच.

पेट्रोल इंजिन, ट्रान्समिशन व ब्रेक्स हे नेहमीच्या गाडीचे मुख्य भाग – परंतु आपल्या एव्हढ्या वर्षांच्या अनुभवावरून हे नक्की माहिती आहे कि ठराविक किलोमीटर नंतर गाडी अधिकृत सर्व्हिस सेंटरमध्ये सर्व्हिस करून घेतल्यास १००००० किलोमीटर पर्यंत देखभालीचा खर्च एकावेळी ७ ते ८ हजाराबाहेर जात नाही. हा विश्वास इ-वाहनांबाबत येण्यासाठी काही वर्ष जावी लागतील.

या सर्व बाबींचा विचार करता इ वाहन नेहमीच्या वाहनापेक्षा महाग नक्कीच पडणार नाही, परंतु स्वस्त पडेल का हे समजण्यासाठी अजून काही वर्ष वाट पाहावी लागेल असे दिसते. इ वाहनांमुळे शहरातील प्रदूषण नक्की कमी होईल. एकूण प्रदूषण कमी होईल का हे आपला देश सौर ऊर्जा क्षेत्रात किती लवकर किती पुढे जातो यावर अवलंबून असेल. इ वाहनांच्या वापराबरोबरच मल्टी ट्रिलियन इकॉनॉमी कडे जाताना औद्योगिक व व्यापारी वीजवापर देखिल वाढणार आहेच. हे सर्व पर्यावरणाचा समतोल राखून साधणे आव्हानात्मक आहे. आपला देश या सर्व क्षेत्रात विकसित देशांच्या खांद्याला खांदा लावून पुढे चालला आहे हे खुप आशादायी व स्वागताई आहे.

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Nominal		1	Resistance	Conventional Cables Current Carrying Capacity 2 Cables, Single Phase		EBXL Cobles Current Carrying Capacity 2 Cables, Single Phase		
	Number / Nominal	Incones						
	of		D COTTON OF A CONTRACTOR OF A	(Max) per km @20°C	In conduit trunking	Unenclosed clipped directly to surface or on cable tray	In conduit trunking	Unenclosed clipped directly to surface or on cable tray
Sq. mm.	mm	mm	mm	ohms	Amps	Amps	Amps	Amps
0.75	24/0.20	0.6	2.20	26.00	6	7	9	14
1.0	32/0.20	0.6	2.40	19.50	11	12	16	24
1.5	30/0.25	0.7	2.85	13.30	13	16	20	32
2.5	50/0.25	0.8	3.50	7.98	18	22	27	44
4.0	56/0.30	0.8	4.00	4.95	24	29	36	58
6.0	84/0.30	0.8	4.50	3.30	31	37	47	74

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German companies are searching for new supply chains. And India is on top of that list

A silver jubilee editon of LED EXPO (Mumbai Edition) was held in May 2023. This was organised by Messe Frankfrut. IEct had interiwed the chief of this exhibition Mr. Johannes. A few excerpts are presented here for our readers.



Mr. Johannes

Lighting technology is closely associated with built in and open environment. how it can be benefit public in general ?

My name is Johannes. I am responsible for lighting building, trade show and also responsible for portfolio of lighting shows. In Frankfurt. So as you have said in Frankfurt since 20 years of light building we realise we couldn't think about lighting without thinking about Home automation activity. Talking about energy efficiency Talking about digitalisation electrification. This is what we thinking close to 3 billion part. So talking about Germany one of our key topics In Germany is energy efficiency and getting more energy efficient product. Lighting is





one of the big and important parts in electrical building. This is why it is so important. To building part.

How you are promoting education and research in lighting technology?

Our whole exhibition is on key education. When you come to exhibition you got all newest Information , new innovation in exhibition. So our key context is what activities bringing to Our show. But of course get something as finch programme. For instance conferences like add ons for Architects . Where they can collect their points. We get some knowledge points. This programme has fix stages . We organise our finch programme in Frankfurt. Where we take key lectures and key notes.

What is your vision in organising this event and trade fares?

First of all we are so happy by conducting this event. Since last 3 years we are conducting this Event. We really got strong portfolio of exhibitions. When it comes to lighting exhibitions we got all shows from bankok, Two shows in india. We got show also in dubai. And one show in Argentina. We want All the customer to choose Frankfurt as partner to get your business connections all over the world. This is one of our key idea. To bring all organisers together from all parts of the world. And bringing the world closer together. Show building needs to be connect to home automation, building automation connectivity's one of the key words.

What advise you would like to give to stakeholders in lighting industry?

Firstly go to exhibitions. You will meet your customers face to face. You will get chance to explain your products. Why your products are best. You can compete with your competitors . You can present your company. Present your image . And corporate identity and think if you want to sale Lighting product . You need to give your customers experience of your lighting. Feeling of your light. This you can not do on internet. This needs face to face communication. So my advice is to go to exhibitions.

What will be the opportunities to Indian exhibitors when they exibit in Germany Light And building ? We are happy to welcome all exhibitors all over the world. Our policy is to take care of Indian exhibitors. We want to make it easy for you. We prepare something like pre- constructed Stand packages. So you can come to frankfurt you can come over there. Turn key openup stand . we will offer package to you. We would also arrange for your travel requirement like visa etc. So that you can travel to Germany . What is good in Frankfurt is there is international trade fare not just for Indian market, Germany market, not for US market. We really got all world in Frankfurt. Over 50% of Visitors coming from abroad. Coming from France , Netherlands, Spain, China, India, Turkey . So come to Frankfurt get chance to connect with whole world.

How you look to Indian market?

Impressive at the moment. In full swing.

What you think about future lighting industry in india ?

I think focus of the production is more to India now. Market is changing. German companies are searching for new supply chains. And India is on top of that list. When it comes searching new partners, conducting exhibitions. Present yourself in Frankfurt. Present yourself in international Exhibitions. I can be partner to development, for delivery for them. I think we need to focus to India. When it comes to production.

Any message to manufacturers in lighting industry?

Present yourself professionally, Be prepare , present your product. present your communication In proper way. Help us to understand you better.





PROLITE IS NOT ONLY ABOUT SAFE EXIT AND ESCAPE SOLUTIONS BUT MUCH MORE

he human mind is wired to compartmentalize and label people, situations and even companies and businesses. This simplistic psychological function helps us categorize and create 'slots' to place them in. Many companies actually use this to their advantage and the 'branding' gets so ingrained that people often mistake the brand for the product itself. Cadbury's as in Chocolates, Nike as in shoes, or Bata, if you will in the good old days.

Fortunately, or unfortunately Prolite, has over 30 plus years, gained the reputation as a market leader and service provider in 'safe escape' or 'exigency' solutions. This branding has been very good for us but a little unfair too because we are not ONLY into safe escape but we provide a much larger umbrella of products and solutions than this branding suggests.

Lights and signs have been an essential feature of human lifestyles since man evolved. Worshipping the sun for providing light and sustenance and the discovery of fire as a light source are all part of evolution. Even today, the digitalization of lifestyle, is you wish to call it that, involves both lights and signs. The light in your mobile allows you to read the signs in your Whatsapp or Instagram or message box. So, without lights and signs, nothing is even possible.

Prolite is firstly an educator and information storehouse that trains and teaches people to understand and evaluate threats that can be caused by disasters such as fire situations, blackouts and the like. People can only use safe escape resources in the critical moments if they have basic knowledge of first response protocols, usage of fire extinguishers, reading the signs accurately and doing what is most needed in priority. That is what Prolite and its team does in public forums and lec-dems on various platforms. Secondly, with the passage of time, rules and regulations too change and Prolite manufactures products of high-quality conforming to the most recent requirements as per those recommendations. Our R&D is constantly innovating to be ahead at all times and that is the reason for our awesome growth today.

When the power fails, you may not necessarily be in a life-threatening scenario, yet the relief to be able to see in that situation itself is a service you may well appreciate. Way finding signs, signs that provide information about products in place and their utility, lighting in corridors that are naturally poorly lit



otherwise, are all highly important solutions not necessarily connected to safe exigency per sec. Prolite Autoglo is an institution, a movement if you will, for people to be aware, alert and informed about safety in any given surroundings. It's an essential service that goes way beyond what our 'branding' suggests.

Emergency lights in trains are mandatory as well

India's rail network is in expansion mode. But notwithstanding the euphoria of upgradation with Vande Bharat adding on, we suffered a setback and witnessed one of the ghastliest train accidents in decades which left 288 passengers dead and over 900 injured in Odisha.

Rail safety was back in discussion but there is a strong possibility that the accident was a case of sabotage and is under investigation. But just as we ensure safety by installing emergency lights, fire extinguishers, sprinklers and photoluminescent signages in homes, shops, malls, hospitals, business institutions and all kinds of enclosed spaces, even trains are equipped with emergency lights mandatorily today.

The government has planned to run 75 Vande Bharat trains by August 2023. To complete PM Narendra Modi's vision, the government is committed to re-developed railway stations too. Currently, only two Vande Bharat Expresses are operational in India from New Delhi to Varanasi and New Delhi to Katra.

During extreme emergencies such as derailment, collisions, or other the power is likely to fail and put the interiors in pitch darkness in the critical moments. Emergency Light Units then come on to facilitate immediate rescue during such emergencies. It is vital to provide illumination during failure of all other power supplies inside the coach. Vande Bharat trains will also have four emergency lights in every coach in case of electric failure.





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