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4

From the President's Desk

6

Samvaad

11

Cover Story

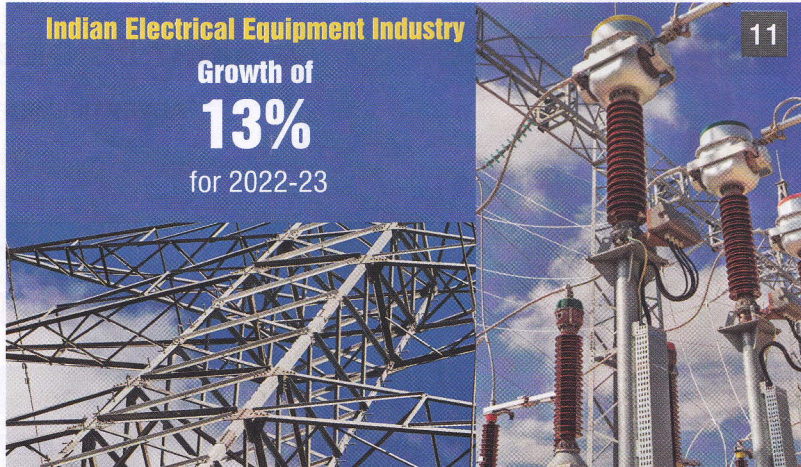
Indian Electrical Equipment Industry Growth of 13% for 2022-23

The power industry plays a pivotal role in India's socio-economic development, driving growth, improving living standards, and supporting various sectors of the economy.

31

Interaction

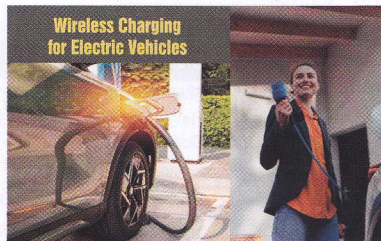
India is consistently demonstrating its climate leadership and a firm commitment to achieve the clean energy transition. At COP26 in Glasgow, the Prime Minister of India announced 2070 as Net Zero goal for India. The new energies viz Green Hydrogen, Grid scale battery storage, Electric Vehicle, Renewable energy based generation will be driving the clean energy transition pathways over a next couple of decades. Given the background, it is critical for Indian Electrical and Electronics manufacturing industry to prepare itself to complement the energy transition journey of the nation



34

InFocus

Wireless Charging for Electric Vehicles

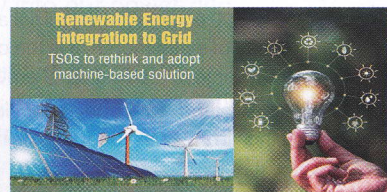


Electric Vehicles (EVs) are becoming popular as we want to reduce our dependency on oil and reduce the ill effects of pollution caused by IC engine based vehicles, which also suffer from low torque and low fuel efficiency performance. Moreover, there is an increasing interest in the use of sustainable green energies, which is spurring the encouragement given to EVs. EVs have much higher 'Well to Wheel Efficiency', compared to IC engine based gasoline vehicles.

50

Insight

Renewable Energy Integration to Grid –TSOs to rethink and adopt machine-based solution



India has set highest RE addition target of 500GW by 2030. It is utmost important to understand the behaviour of our large network, when 500GW will be added to this network from renewable power generation, which is also known as Inverter Based Resources (IBR). While planned our system with addition of static solutions like STATCOM and SVC, the focus needs be drawn to the need of improving the Short Circuit Ratio (SCR) and Inertia at different nodes in RE rich regions.

For suggestions and feedback please write to us on shalini.singh@ieema.org

55

Ministry Update

Need to have another PLI scheme for grid scale storage, to augment capacity and have round-the-clock renewable energy: Union Power and New & Renewable Energy Minister R. K. Singh



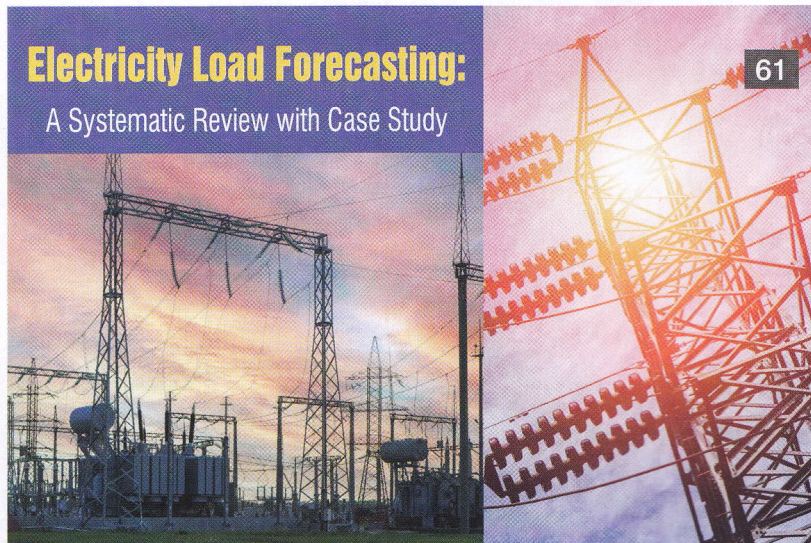
"Need to have another PLI scheme for grid scale storage, to augment capacity and have round-the-clock renewable energy:"
 - Shri R. K. Singh, Union Minister of Power & NRE

The Union Minister for Power and New & Renewable Energy R. K. Singh Addressing "The Economic Times" Energy Leadership Summit & Awards event in New Delhi

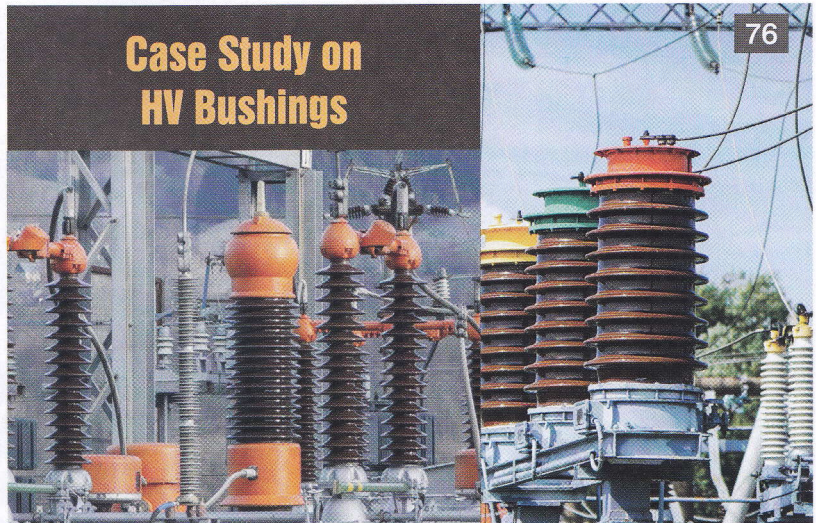
61

Case Study
Electricity Load Forecasting: A Systematic Review with Case Study

Load forecasting plays an important role in power system planning, operation and control.



61



76

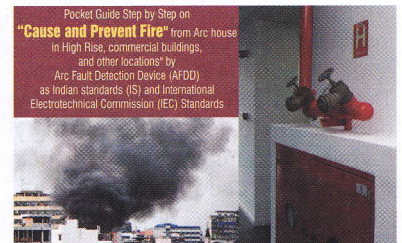
76

Expert Speak
Case Study on HV Bushings

HV Bushings are critical components and a failure can have very serious consequential damage. Because of this extreme care is required in the condition monitoring of HV bushings. Whenever an HV bushing is found to be unhealthy, the general practice is to replace the same. We have faced a situation wherein the bushings in service were observed to be unhealthy and no replacement was coming through. In that situation we have undertaken reconditioning of Oil impregnated bushings and successfully carried out the replacement.

80

Guest Article
Pocket Guide Step by Step on "Cause and Prevent Fire from Arc house in High Rise, commercial buildings, and other locations by Arc Fault Detection Device (AFDD) as Indian standards (IS) and International Electrotechnical Commission (IEC) Standards



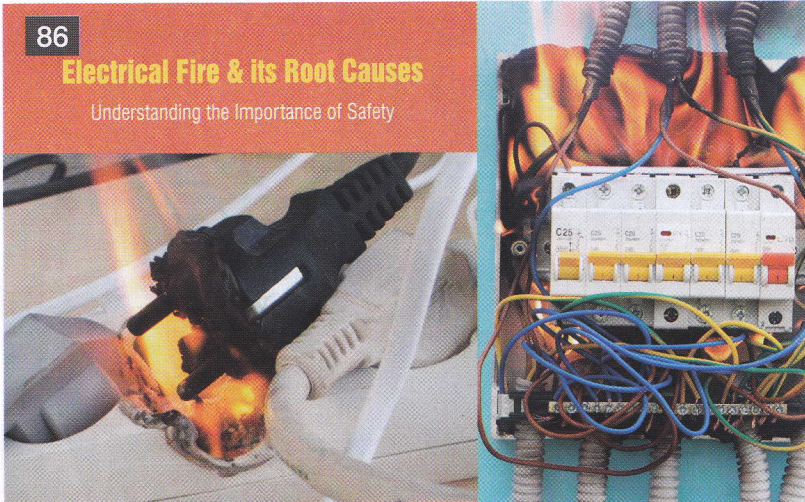
Cause of Arc occurs due to a Cut in wire, loose connections, and a Ground fault.

The line to Earth fault (means wire insulation burns or cuts. Copper wire, touch to Ground or earth parts.

In High rise buildings, if a fire occurs then this will cause major damage and be difficult to control.

Every day we read newspapers 1 or 2 electrical shocks and Fire in Electrical Installation.

This will cause loss of life, billions of rupees loss, damage to property, and loss of power.



86

Electrical Fire & its Root Causes

Understanding the Importance of Safety

86

Guest Article

ELECTRICAL FIRE & ITS ROOT CAUSES: UNDERSTANDING THE IMPORTANCE OF SAFETY

Electrical negligence is a major cause of accidents and loss of lives. Shockingly, over 40% of building fires are attributed to electrical issues, often stemming from improper connections, short circuits, overloading, faulty insulation in household appliances, and inadequate maintenance. These fires can start unexpectedly, originating from seemingly harmless sources such as hair dryers or overused phone chargers.

88

ERDA

90

Power Scenario

Global Scenario
Indian Scenario

92

IEEMA Database

Basic Prices & Indices
Production Statistics

94

International News

- L&T inaugurates Heavy Wall Pressure Vessel Facility in Saudi Arabia
- New York Power Authority receives innovator award for hydrogen blending

96

National News

- NTPC Vidyut Vyapar Nigam Limited (NVVN) commissions first Rooftop Solar PV Project

98

Corporate News

- Solar energy solutions provider Oriana Power files DRHP for its public issue with NSE Emerge

100

Product Showcase

101

Advt Index

102

Sparks Sans Shocks

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