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From the President's Desk

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Samvaad

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In Focus

Cheap Chinese goods throbbing Indian electrical equipment units

India's small- and medium-enterprise-dominated electrical equipment industry is under pressure. Sluggish demand in the domestic market and a consistent increase in imports of electrical equipment from China are threatening its growth. Chinese imports have led to the closure of many businesses, switching from manufacturing to trading and over-dependence on Chinese inputs.

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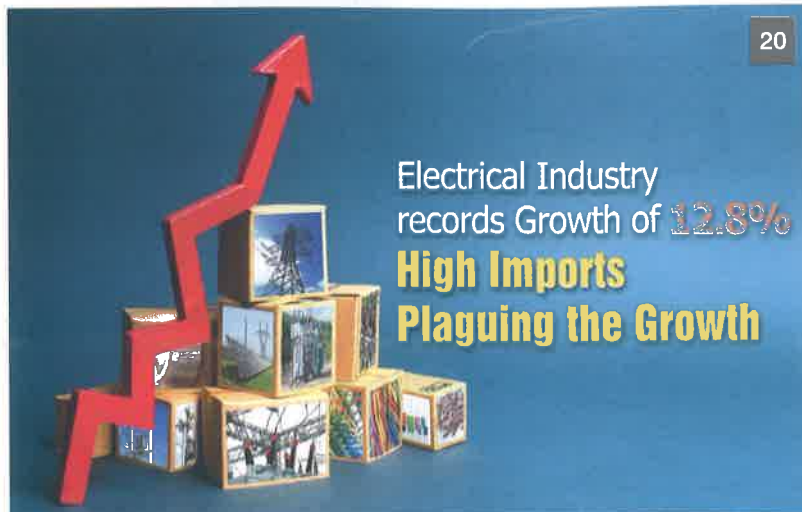
Cover Story

Electrical industry records growth of 12.8%, high imports plaguing the growth

India's energy sector has witnessed conventional power generation growth at an average rate of 4%-6% over the last 10 years. While continuous growth in conventional power generation is inevitable due to increasing industrialization and population, renewable sources for generation of power has also picked up lately.

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IEEMA Event First Edition of TRAFOTECH-DT Conference



The first edition of TRAFOTECH-DT Conference was held on June 12, 2019 at Stein Auditorium, India Habitat Centre, New Delhi. The event witnessed the presence of more than 350 delegates with 25 papers presented during the one day conference. The Conference was inaugurated by Mr Vishal Kapoor, Director, Ministry of Power, in the presence of Mr Sanjay Banga, CEO, TPDDL, Mr RK Chugh, Vice President, IEEMA, Mr Alok Agarwal, Chairman, Distribution Transformers Division and Mr Sunil Misra, Director General, IEEMA..

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Expert Speak Tata Power's Experience on Online Moisture Removal for Distribution Transformers



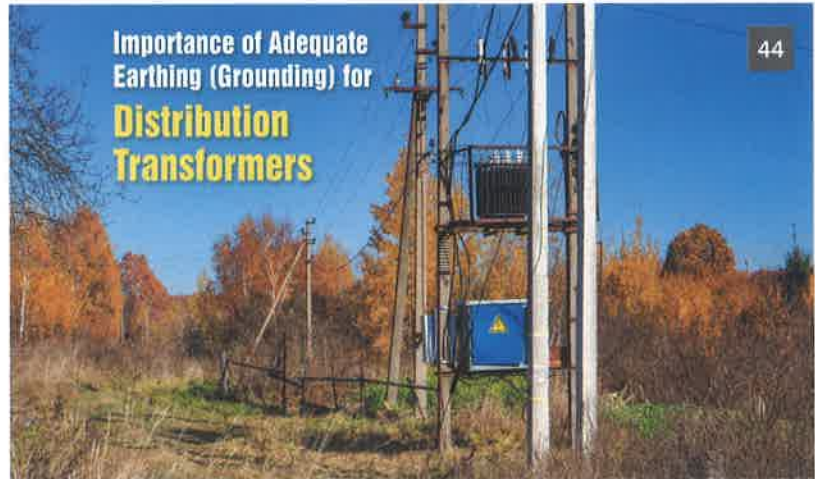
Distribution transformers are the most critical and expensive component in Distribution system. These are the service transformers that provides the final voltage transformation stepping down the voltage used in the distribution lines to the level used by the customer. The capacity of Distribution transformers ranges from 0.4 MVA to 2 MVA. Some of distribution transformers are aged and are having high moisture problem. Moisture level in transformer oil is one of the important parameter which affects healthiness of transformer.

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Indepth

Importance of Adequate Earthing (Grounding) for Distribution Transformers

The transformer, being a key element in the transmission and distribution of electrical energy, improving its reliability is of utmost importance. System abnormalities, loading, switching and ambient condition normally contributes towards accelerated aging and sudden failure. It is important to provide adequate grounding which helps in mitigation of fire hazards and accidents.



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Guest Article

Power factor problems in large lime stone crushing plant

Stone crushing plants –generally pay a good amount of money as –power factor penalty .it is due to their low technology, input voltage problem, recurring financial loss, variable load operation, harmonics .this case study is prepared for such units who pay lump sum of penalty every year. Power Factor and harmonics, because of their impact on energy efficiency, are important issues to consider for the management of electrical installations. Power Factor Correction and harmonics mitigation both provide immediate benefits in terms of reduced power losses and reduced electricity bills.

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Insight

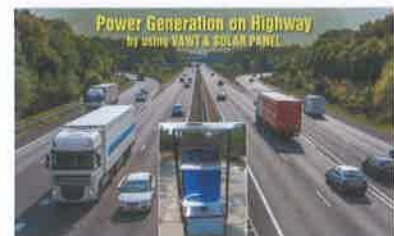
Adaptive Control Scheme Estimated the Parameter Using STR

This paper introduces the adaptive control scheme for the varying parameters of the plant to obtain the desired output. Self-Tuning Regulator (STR) is a part of adaptive control scheme. It consist of two blocks; parameter estimation block for the online parameter estimation either of controller parameters directly (Implicit STR) or plant parameters. which will further used to calculate the controller parameters (Explicit STR), and the controller design block to provide the controller design solution for the known parameters.

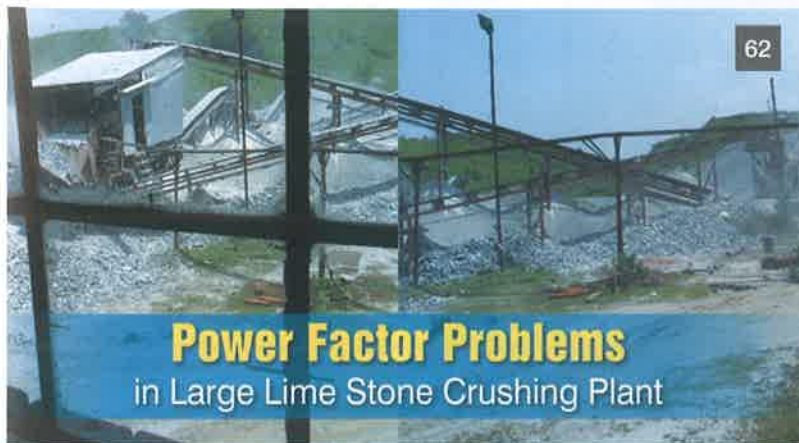
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Solutions

Power Generation on Highway by Using VAWT & Solar Panel



Wind energy is one of the non-conventional forms of energy and it is available in affluence. Electricity can be generated with the help of vertical axis wind turbine. This projects aims of utilizing this wind energy in most effective manner to get the maximum electric output, and therefore we selected highway as this installation site where we can take the advantage of the moving vehicles on both the sides of the road. In the present work, turbine is design and fabricated as per the specifications, the blades used are semi-circular shape and are connected to the disc which is connected to shaft. Shaft is then coupled with pulley with the help of bearing, and then pulley is connected to the alternator, which generates the power. The power developed is stored in battery and then can be used for street light, signal or toll. In this project a small model has been created for testing purpose.



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IEEMA event

Interactive program on “Emerging Business Opportunities in T&D and RE Sector” and B2B meetings

IEEMA Western region organised an Interactive programme on Emerging Business Opportunities in T&D and RE Sector followed by Buyer Seller meet between OEMs.

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Power Scenario

Global Scenario
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- Nepal, Bangladesh agree for joint investment in hydropower projects

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- Power ministry working on new norms for discoms to secure payment to gencos

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- Siemens to upgrade India’s oldest HVDC link

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