

the leading electrical & electronics monthly

ieema journal

Volume 8 Issue No. 12 August 2017 CIN U99999MH970GAP014625
Official Organ of Indian Electrical & Electronics Manufacturers' Association
Member: Audit Bureau of Circulation & The Indian Newspaper Society

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Appointments

This new space in the IEEMA Journal will incorporate recent important appointments in the power and related sectors

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Interaction

In the battle of survival, we are seriously compromising any future indigenous innovation in R&D: **Mr Harish Agarwal**

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Interview

Need of the hour is to introduce new and smart technologies in manufacturing: **Mr RK Shah**

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Face to face

Need to have system which identifies the need of transmission project much ahead of the commencement of projects: **Mr Chaubey**

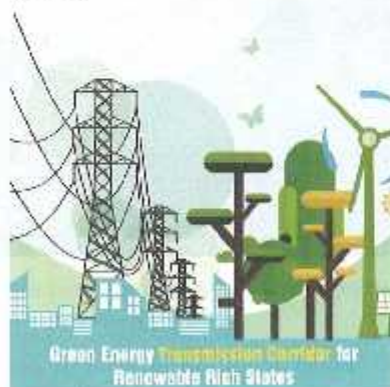


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Cover story

Green Energy Transmission Corridor for Renewable rich States



In developing countries like India, the energy demand always outpaces the supply. The energy needs of the country are growing at a very fast pace to meet high GDP growth. Electricity generation is hitherto primarily dependent on fossil fuels viz. Coal, Gas and Oil, and is also supplemented through hydro based generating stations and few nuclear generating stations.

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In depth

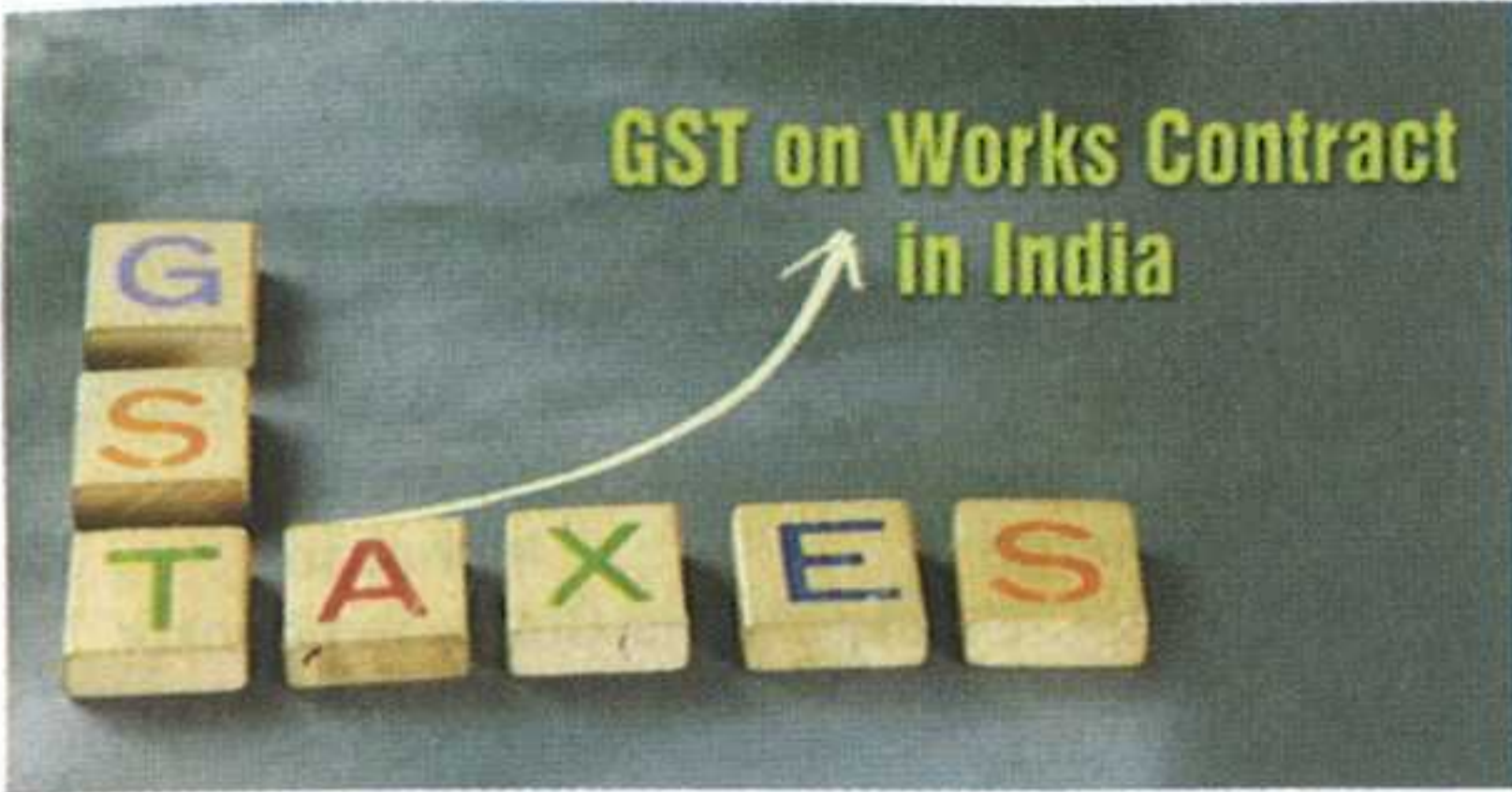
Recent advancement in Transmission Line Compaction



The right of way limitations to construct new transmission lines and to increase the voltage level of the existing ones have LED the development of the line compaction technique. The article presents many components & innovative solution for overhead transmission available right of way.

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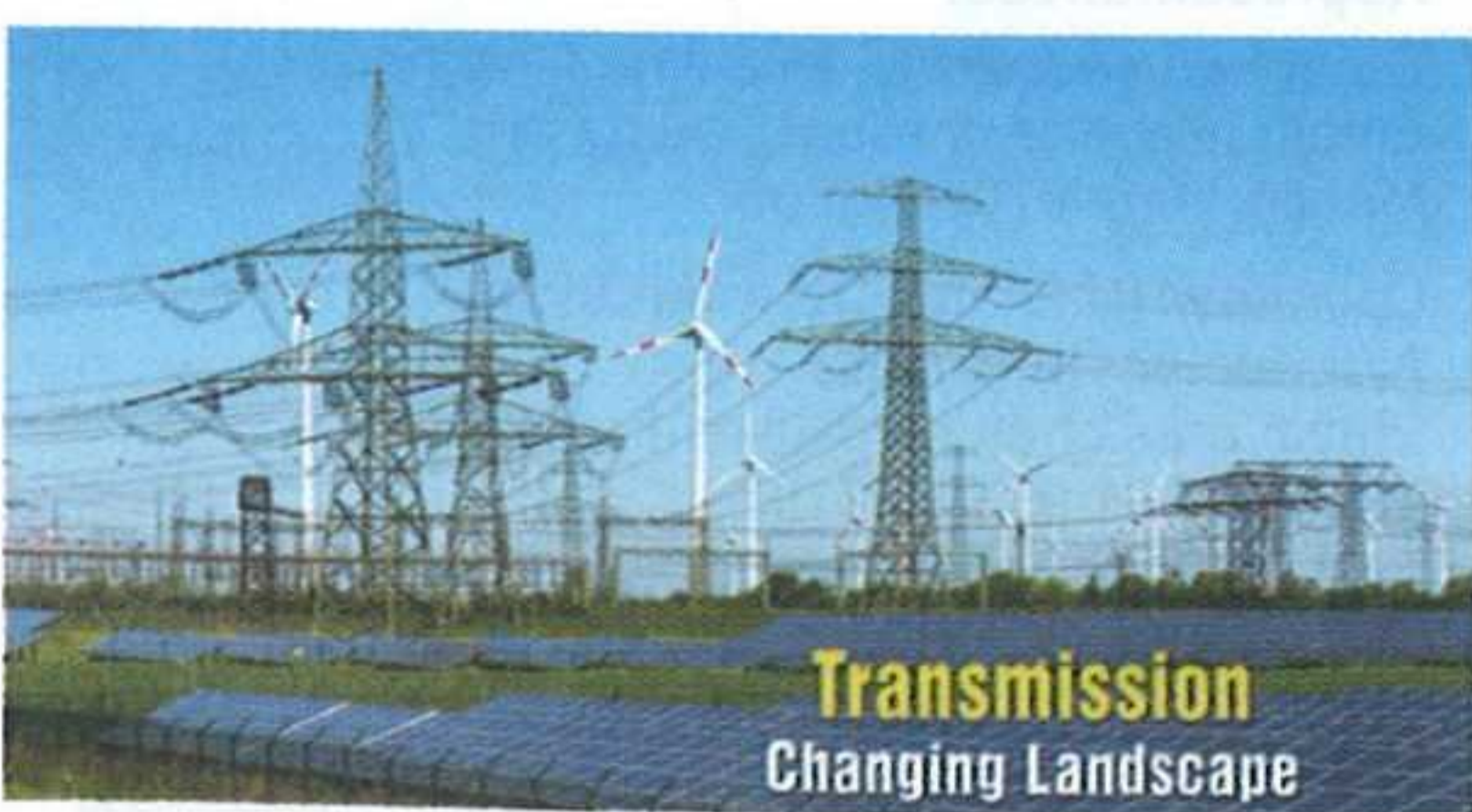
Special report
GST on Works Contract in India



India's biggest tax reform is now a reality. A comprehensive dual Goods and Services Tax (GST) has replaced the complex multiple indirect tax structure from 1 July 2017. GST is a destination-based tax that replaces the earlier Central taxes and duties such as Excise Duty, Service Tax, Counter Veiling Duty (CVD), Special Additional Duty of Customs (SAD), central charges and ceases and local state taxes, i.e., Value Added Tax (VAT), Central Sales Tax (CST), Octroi, Entry Tax, Purchase Tax, Luxury Tax, state ceases and surcharges and Entertainment tax (other than the tax levied by the local bodies).

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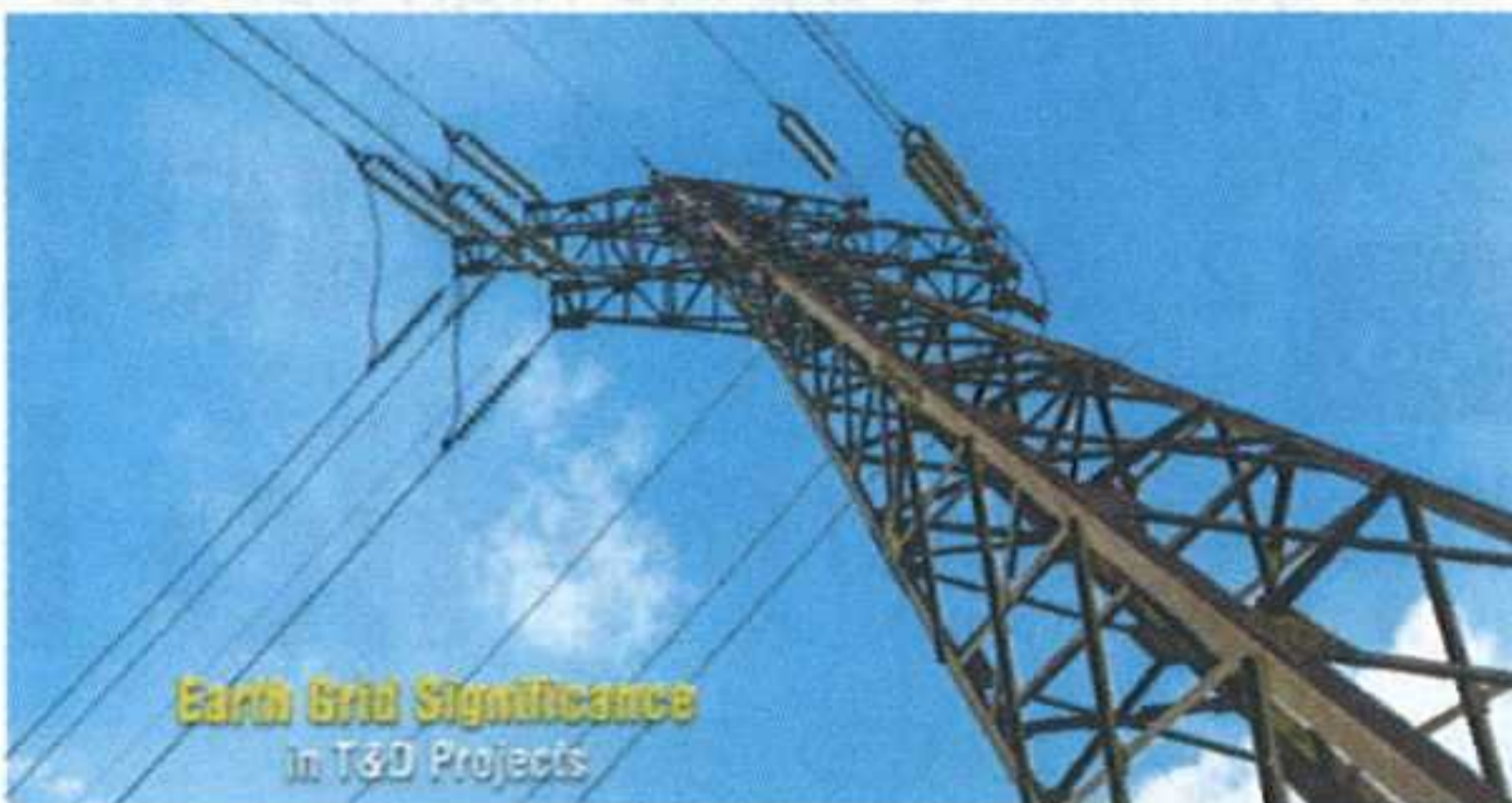
Expert speak
Transmission: Changing Landscape



Earlier transmission infrastructure in India assumed an utmost importance as the distribution of energy resources and consumption centers were extremely unbalanced. Generation projects were primarily trying to locate in pit head/resource rich areas ultimately depending on the huge network of transmission infrastructure for their consumption.

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Guest article
Earth Grid Significance in T&D Projects



Utility transmission and distribution network substation ground grids should ensure and improve the power quality. More importance is to be given towards SAFETY, hence workers as well as the public working / entering the area need to be the top most priority in designing an earth grid (earth mat). Such earth grids are normally formed by the mesh of horizontally buried conductors.

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Highlights

- Legrand India announces its experiential Centre- Innoval in the country
- Vikarsh Stampings gets technology awards

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In Focus
Pre-magnetizing of Transformers



Transformer is energized by closing circuit breaker, with system voltage being applied on transformer instantly. This switching introduces an asymmetrical magnetic flux in core, driving the transformer into saturation. As a result, high magnetizing current is produced in the winding. Magnitude of this current may reach upto 10 times of the rated current.

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Power Ministry

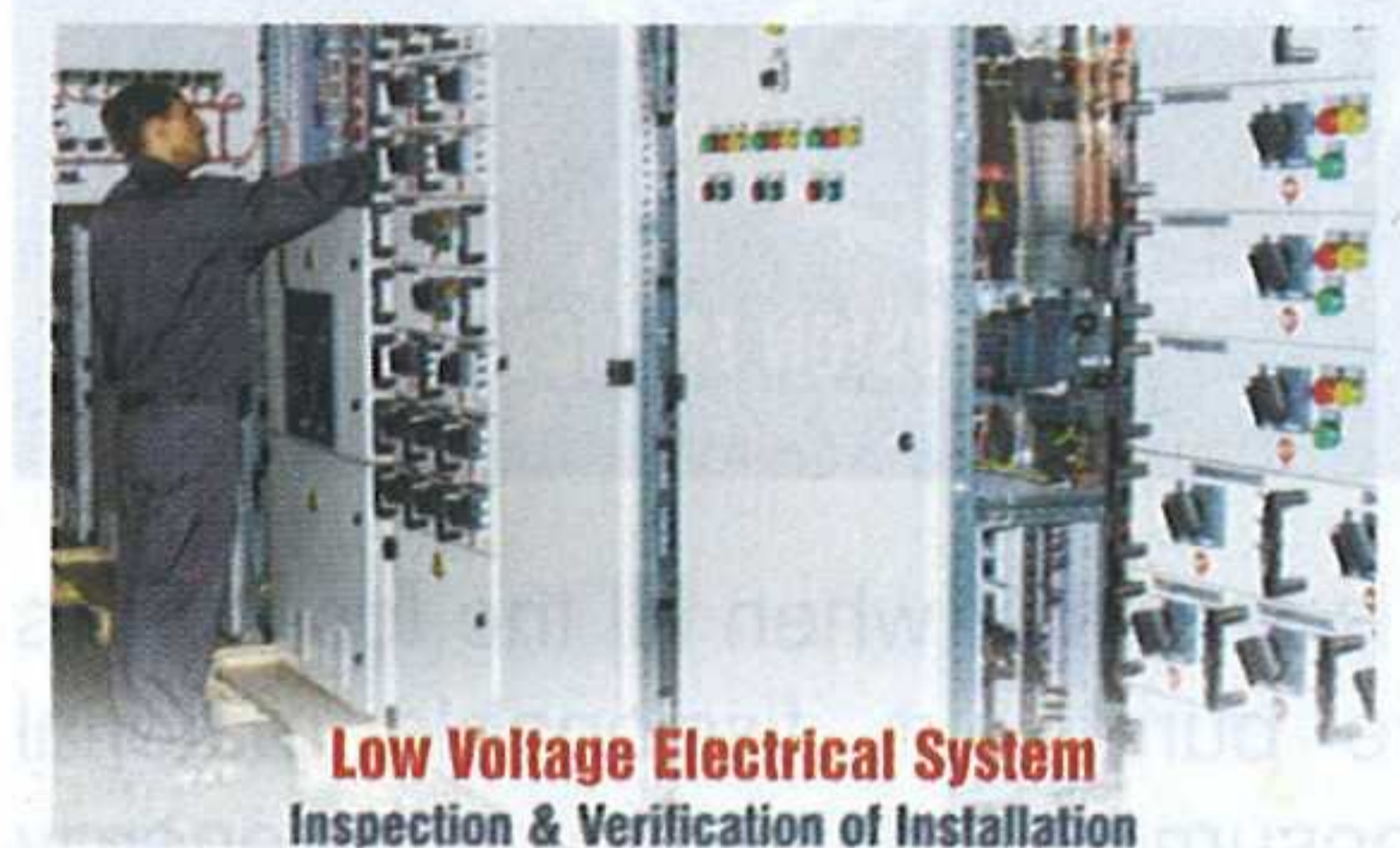
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Policy matters
Draft National Electricity policy by NITI Aayog focuses on challenges of Grid Integration

Grid integration means minimizing and/or managing the variability and uncertainty aspects of Renewable Energy. Unlike fossil fuel based electricity that can be generated steadily, renewable sources like wind and solar cannot be made to generate on demand (or be shut down for later exploitation).

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Solutions
Low Voltage Electrical System – Inspection & Verification of Installation



Verification of L.V electrical installation is mandatory in several countries. This is done during erection, as far as reasonably possible and on completion, before being put into service. IEC 60364-6 provides clear requirements about the verifications required.

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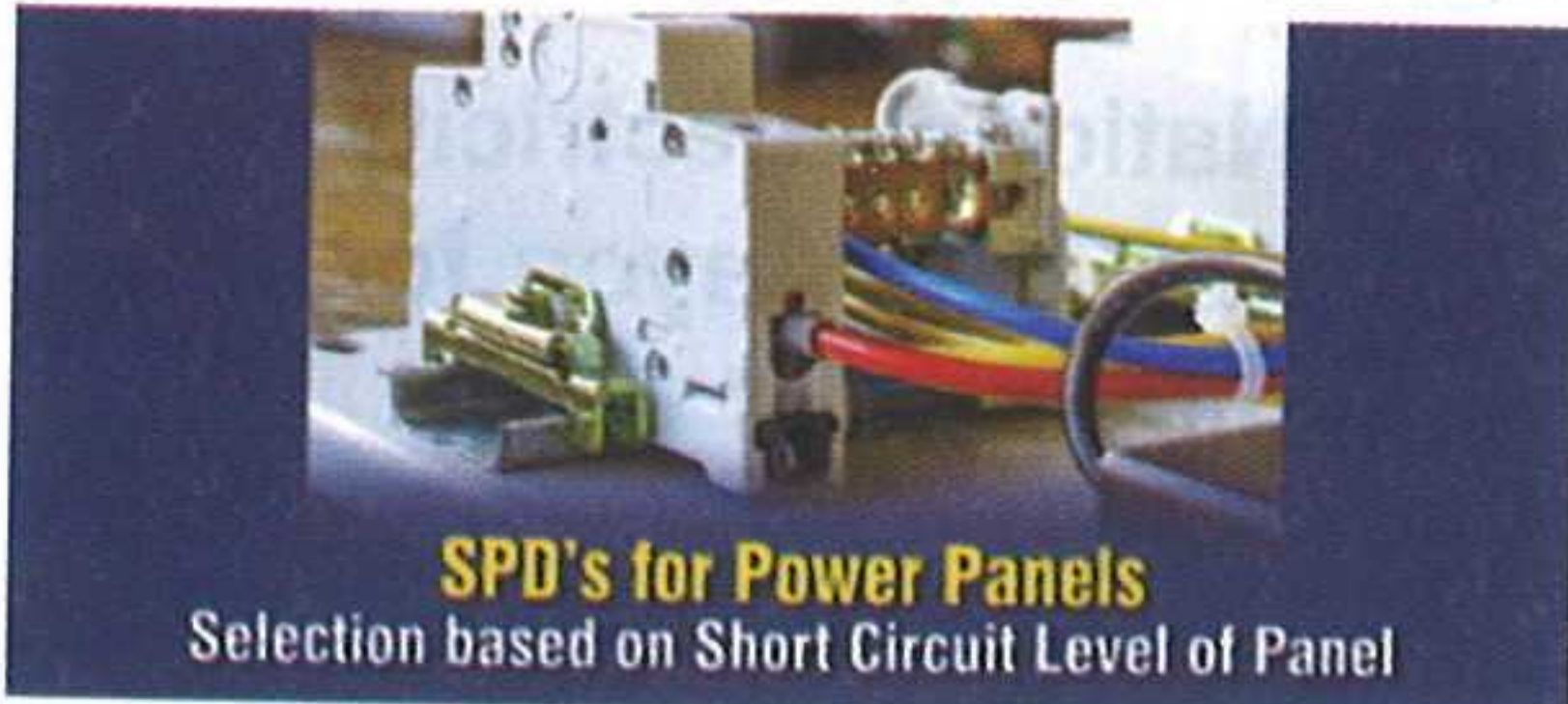
Opinion
Disruptive Technologies to Watch

Remember the good old 35mm camera, a favorite of most photographers and hobbyists? Kodak was a common household name, had 170,000 employees and in 1998, sold 90% cameras and 85% of all photo paper and film worldwide.

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Technology

SPD's for Power Panels – Selection based on Short Circuit Level of Panel



Surge Protective Devices are the most sensitive components in a power panel with response time in nano seconds. The protective components such as MOV/ GD tubes / Spark Gaps in SPD are always connected in parallel to the line.

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Tech Space

Fusion Energy: Where Do We Stand



It is said that when all the fossil fuels are burnt out, fissionable material consumed and the renewable energy resources are developed, we would be left with fusion energy only to meet further needs.

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Simulation of High Voltage Bushing Faults and its Failure Analysis



High Voltage (HV) Bushing is a device used to carry high voltage & high current from electrical equipment

like transformers and switchgear to overhead lines. In service, HV bushing has to withstand the rated high voltage and also the abnormal system over voltages as well as the heat generated by the high current.

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