

VOL 16 • ISSUE NO. 8 • APRIL 2025

PGS. 92

ISSN 0970-2946 • ₹100/-

# FIERGY



#### OTHER STORIES:

- INSIGHT: Electrical Safety
- CASE STUDY: Discrete Approach over Power Quality Parameters Monitored by a Utility

the leading electrical & electronics monthly

# ieema journal



For Subscription and Advertisement Queries Contact:

#### **Edward Jayan**

Mobile No.: +91 91460 08843 Tel.: +91 22 24932705 E-mail:edward.jayan@ieema.org 501, Kakad Chambers, 132, Dr. Annie Besant Road, Worli, Mumbai 400018, INDIA

# Why Advertise in IEEMA Journal?

- IEEMA Journal Covers Techno-Commerical Articles, Interviews, International and National News, Statistics, Product Showcase, Seminar, Exhibitions and Services.
- It is the only trade magazine in India that enjoy a readership of around 1,00,000
- It is circulated to Ministries of Power, Finance, Commerce, Defence, Railway, Information & Technology, Utilities like NTPC, NHPC, DVC, PGCIL etc

# Plug into the Right Connection

IEEMA Journal is the leading electrical and electronics monthly and the mouthpiece of the electrical equipment industry in India

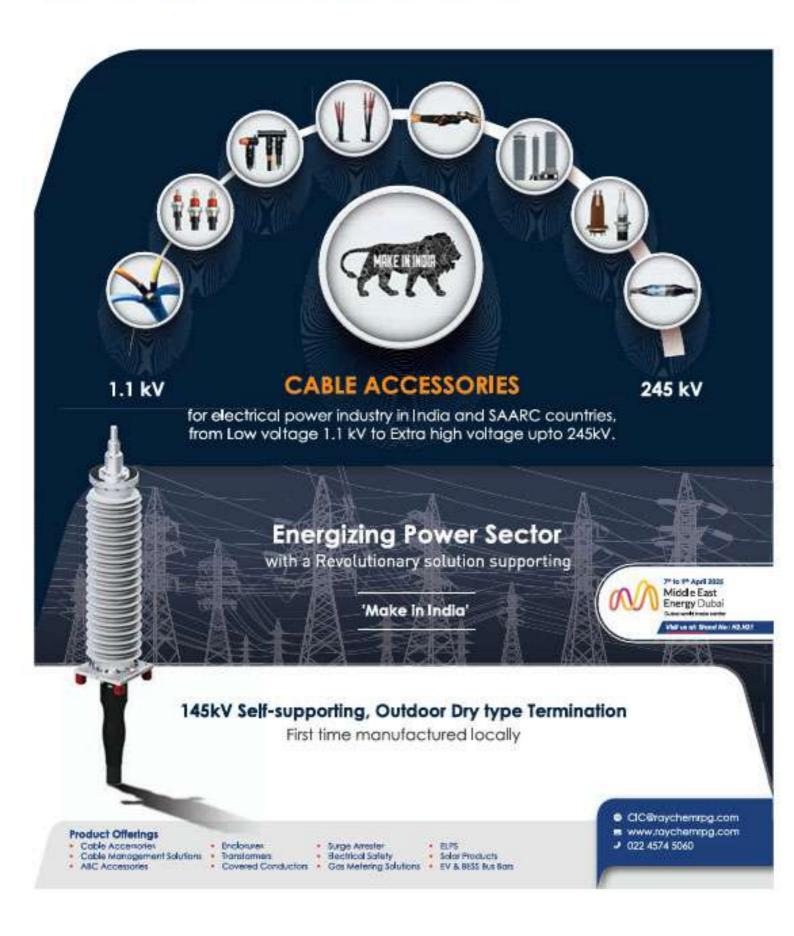
# International exposure

The overseas circulation of IEEMA Journal includes all Indian Missions abroad, counterpart electrical associations of IEEMA in countries like Japan, Taiwan, Australia, Germany, Spain, China, Italy, Malaysia, Korea, US, France, UK etc.





### **Market Leaders for Generation**



the leading electrical & electronics monthly

# Contents

Volume 16 . Issue No. 08 . April 2025 CIN U99999MH1970GAP014629 Official Organ of Indian Electrical & Electronics Manufacturers' Association Member: The Indian Newspaper Society

From the President's Desk Samvaad

For suggestions and feedback, please write to us on editor.ieemajournal@ieema.org

#### COVER STORY







ENERGY REFORM! 10

With the increasing adoption of renewable energy and smartening of the grid, India is on the path for a resilient, efficient, and sustainable energy future. In the centre of this transition stands the world's largest show - ELECRAMA. In this edition, we present insights from the power-packed conferences at ELECRAMA 2025 - the World Utility Summit and eTECHnxt, with the themes 'Empowering Utilities: Transforming Energy Challenges into Resilient Future' and 'Clean Energy (R)Evolution - Carbon Markets, Storage & Generation', respectively. Read on...

39

#### THINK TANK



#### CASE STUDY

#### Discrete Approach over Power Quality Parameters Monitored by a Utility

As India continues its journey towards a cleaner energy future, addressing power quality challenges will be crucial to ensure efficient and reliable operations of its electrical systems. By implementing appropriate mitigation strategies and maintaining power quality parameters within IEEE standards, utilities can enhance system performance, reduce losses, and protect equipment, writes Dr Manish Wath, Chief Engineer (Testing), Maharashtra State Electricity Distribution Company Limited.

53

### **EXPLORE THE WORLD OF OBO**

OBO Bettermann is an independent family company with a tradition stretching back over 100 years and four generations. OBO has more than 30,000 products and are the market leaders in providing the complete solutions for all your electrical infrastructure needs.





## Industrial Installations

- Cable trays, Cable ladders and Wire mesh trays.
- Junction Boxes, Cable Glands and Profile rails
- Beam Clamps and Wire Rope Suspension Systems
- Solar Module Mounting Systems

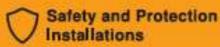


#### **Building Installations**

- Halogen free Wall trunking Systems
- ① Underfloor Systems
- Service poles for power & data
- Suspended power supply units Hover Cube







- Surge Protection Devices
- Lightning Protection Systems
- Earthing Systems
- Passive Fire Protection Systems





(C) +91 893 990 4000 C info@oboindis.com the www.oboindis.com













#### INSIGHT

#### Let's Work Together for an Electrical Safe India

Through this paper, Dr. Rajesh Kumar Arora provides insights of different causes of electrocution or fire hazards and provides recommendations and safety tips for an electrical safe India.



#### SPECIAL REPORTS

#### IIT Kanpur hands over Substation Inspection Robot to POWERGRID

The Substation Inspection Robot (SIR) is an advanced autonomous mobile robot designed to enhance the safety and efficiency of substation inspections.

#### ERDA Inaugurates State-of-the-Art Solar Inverter Test Facility

The Electrical Research and Development Association (ERDA), on its 51<sup>st</sup> Foundation Day, inaugurated a state-of-the-art solar inverter test facility that can undertake research and evaluation of up to 250KVA class solar inverters.

#### PRODUCT SHOWCASE

#### Product Launches @ ELECRAMA 2025

- High-Strength Copper Silver Alloys
- Copper and Aluminium Foils for Li-Ion Barrier Cells
- Innovative MV Gas-Insulated Switchgear
- Compact and Efficient Cable Junction Box
- · Electrical Power Branching Solution
- Modular Electrical Power Distribution Solution
- · Reliable DC Connectors
- Pioneering Self-Supporting HV Outdoor Termination
- Solar Module Junction Box
- Digital Clampmeter
- Digital Multimeter
- Made-in-India Digital Multimeter
- Dual Communication NICs with added Bluetooth Module

- Smart IoT Module for Low Voltage Switchgear
- Strip and Wire Forming Machine
- '5 in 1' New Tension and Metering Sensor Technology
- Power Quality Solutions

42

- 3-in-1 Busbar Bending-Cutting-Punching Machine
- Relays for T&D Segment
- PVC Rigid Conduit Pipes
- 150kVAr Advanced Static VAr Generator Module
- Solar Luminaire Solutions

#### POLICY UPDATES

82

- CEA issues guidelines for usage and sharing of fibre cores of OPGW and UGFO cables.
- Launch of National Critical Mineral Mission approved to reduce country's dependence on import of critical minerals for EVs.
- PM Surya Ghar. Muft Bijli Yojana crosses milestone of 10 lakh installations.
- Government initiatives to promote gas-based power generation.
- · Incentivising manufacturers of EVs.

#### NEWS

63

65

66

#### NATIONAL

85

- Madhya Pradesh launches Renewable Energy Policy 2025.
- NGEL and CSPGCL sign JVA for RE projects.
- REC signs MoU with EMC to finance PSPs in Kerala.
- IRFC extends Rs75 billion loan to NTPC Green Energy.
- NTPC REL commissions 105 MW Shajapur Solar Project.
- SJVN and Chhattisgarh Govt sign MoU for pumped hydro storage project.
- IREDA issues Rs12.47 billion perpetual bonds to strengthen tier-I capital.
- HERC notifies amendments to HERC (Green Energy Open Access) Regulations, 2023.
- Andhra Pradesh issues operational guidelines for Integrated Clean Energy Policy, 2024.

#### INTERNATIONAL

Q

- Thailand commits to US\$ 1.8 billion Al-powered smart grid transformation.
- Indonesia unveils third-largest floating solar plant.
- China commissions 500 kV Bayue-Chenjiaqiao II transmission line.
- Malaysia's 1.2 GW Pulau Indah Power Plant commences operations.

#### CORPORATE

88

- Avaada Electro inaugurates 1.5 GW solar module facility and 5 GW solar manufacturing unit.
- Torrent Green Energy incorporates subsidiaries for RE business.
- Jakson Green to invest Rs86.66 billion for RE portfolio expansion.
- CCI approves JSW Neo Energy's acquisition of O2 Power.
- Gentari acquires 1.6 GW renewable portfolio from Brookfield in India.
- CCI approves ONGC NTPC Green's acquisition of Ayana Renewable Power.



#### POWER STATISTICS

•	Global Scenario	76
•	Indian Scenario	77

#### **IEEMA DATABASE**

•	Basic Prices and Indices	78
٠	Production Statistics	79

#### **EXIM REPORT**

<ul> <li>Export-Import Scenario</li> </ul>	80

### AD INDEX 89

#### SHOCKS & SPARKS

90

#### For subscription and advertisement queries, write to: journal@ieema.org

Edited, printed and published by Ms. Charu Mathur on behalf of Indian Electrical and Electronics Manufacturers' Association, and printed at Indigo Press (India) Pvt Ltd, Plot No. 1C/716, Off Dadoji Konddeo Cross Road, Between Sussex and Retiwala Industrial Estate, Byculla (E), Mumbai-400 027, and published at 501, Kakad Chambers, 132, Dr. Annie Besant Road, Worli, Mumbai 400 018.

### ieema journal April 2025

### EDITORIAL BOARD

ADVISURY CUMMITTEE		
Founder Chairman	Chairman	
The late RG Keswani	Sunil Singhvi	
Members	R Krishnakumar	
Sunil Singhvi	Mustafa Wajid	
Rohit Pathak	Atul Arya	
A Naveen Kumar	Imteyaz Siddiqui	
Editor	Statistics & Data Incharge	
Charu Mathur	Ninad Ranade	
Printed at	Designed by	
Indigo Press (India) Pvt Ltd	Varghese Sakariya	

#### Read Office - Mumbai

501, Kakad Chambers, 132, Dr A Besant Road,

Worli, Mumbai 400 018.

Phone: +91(0) 22 24930532 / 6528

Fax: +91(0) 22 2493 2705 • Email: mumbai@ieema.org

#### Corporate Office - New Delhi

Rishyamook Building, First floor,

85 A, Panchkulan Road, New Delhi 110001. Phone: +91 (0) 11-23363013, 14, 16

Fax: +91 (0) 11-23363015 • Email: delhi@ieema.org

#### Branch Office - Bengaluru

K Seetharaman, Assistant Director

State Head – Karnataka, Kerala and Tamil Nadu Regional Representative-Southern Region

Mobile: +91 99800 04982 Email: k.seetharaman@ieema.org

#### Branch Office - Kolkata

Sanjoy Mukherjee, Regional Representative-Eastern Region

Mobile: +91 98308 50757

Email: sanjoy.mukherjee@ieema.org

#### Website: www.ieema.org

Articles: Technical data presented and views expressed by authors of articles are their own and IEEMA does not assume any responsibility for the same. IEEMA Journal owns copyright for original articles published in IEEMA Journal.

#### STATE HEADS

#### Raiesh Parab

Senior Executive Officer & State Head-Maharashtra.

Mobile: +91 97022 69598 Email: rajesh.parab@ieema.org

#### Anuj Kumar Chaturvedi

State Head-UP, Uttarakhand & MP

Mobile: +91 98396 03195 / 95191 38844 Email: anuj.chaturvedi@ieema.org

#### Ashish Vikram

State Head-UP

Mobile: +91 98733 05589 Email: ashish.vikram@ieema.org

#### Omkar Pradhan

State Head-Gujarat Mobile: +91 98199 06433 Email: omkar.pradhan@ieema.org

#### Mohammad Irfan Parray

State Head-Jammu & Kashmir Mobile: +91 98584 55509 Email: Irfan.parray®ieema.org

#### Nilankha Chaliha

State Head-North East Mobile: +91 97063 89965 Email: nilankha.chaliha@ieema.org

#### Rajnish Kaushik

State Head-Haryana, Punjab, Himachal Pradesh & Chandigarh

Mobile: +91 99911 10246 Email: rajnish.kaushik@ieema.org

#### Sairam Rayepeddi

State Head-Hyderabad Mobile: 9642345691

Email: sairam.rayepeddi@ieema.org