

the leading electrical & electronics monthly (English)

ieema journal

VOL 18 • ISSUE NO. 2 • OCTOBER 2026

PGS. 102

ISSN 0970-2946 • ₹100/-

WINNING THE DECADE FOR AN ALL ELECTRIC FUTURE



COVER STORY: IEEMA 79th AGM & Annual Convention 2026

OTHER STORIES:

- **FOCUS:** Power Systems in the Age of AI; Indian Power Grid By 2030
- **INSIGHTS:** The Complex Chemistry and Engineering Behind EV Batteries; DGA of Solar Power & Inverter Duty Transformers

FROM THE PRESIDENT'S DESK

Dear Readers,

This past year has brought remarkable progress across many fronts, for our industry and also for IEEMA. My term as the President of IEEMA comes to a close and I am pleased to hand over the baton to my friend, Siddharth Bhutoria, to take forward IEEMA's vision for the industry.

The 2025-2026 period marked a series of defining transformations across India. India is now the third-largest producer and consumer of electricity. The electrical manufacturing sector recorded a growth rate of 14 percent building on a 10 percent CAGR over the last five years, with exports recording a similar robust increase of 14.5 percent.

That said, geopolitical shifts continue to profoundly impact global supply chains, creating a complex landscape of both challenges and opportunities, resulting in geopolitical realignment. Beyond geopolitical pressures, ageing grid infrastructure across the globe is triggering urgent demands for system overhauls. Domestically, Quality Control Orders and Omnibus Technical Regulations created some roadblocks in maintaining a consistent, smooth supply chain.

Nevertheless, the industry responded proactively by expanding production capacities and investing strategically in both forward and backward linkages, backed by investments of about USD 3.5-4 billion. Alongside meeting robust domestic demand, I am happy to note that our manufacturers share a strong ambition to expand their global footprint.

These trends are also reflected in the IEEMA Vision exercise, the honour of which I had to drive alongside our members. We have envisioned four core focus areas for IEEMA's future: 1) Strengthening the Policy Muscle 2) Going Global 3) Expanding the Tent 4) Building Centres of Excellence.

As part of our ongoing efforts to champion the Ease of Doing Business, we have continued to maintain a strong focus on policy advocacy, securing several major wins while continuing to work through pending issues.

During my tenure, we also carried out high-level government leadership interactions and stakeholder engagement across multiple levels of governance. We have built deeper industry-government dialogue and have also significantly strengthened our engagement with NITI Aayog and MeitY. We also expanded our state-level outreach, engaging closely with the governments of Rajasthan, Gujarat, Odisha, Telangana, and Bihar.

To address the long-standing demand from our members for support in expanding their



global footprint, IEEMA also organised a business delegation to France and Germany in April 2026, which has already yielded impressive results. Riding this momentum, EDF France recently visited with an eight-member team to seriously explore Indian procurement.

I am personally contented to share that IEEMA is opening two international offices – one each in Europe and the US; the recruitment drive for the US office is already underway. Our new trade facilitation services for members are also currently under development and will be announced soon.

Internationally, IEEMA also successfully coordinated India pavilions at major events like Hannover Messe and CIGRE and space has already been secured for Distributech US in 2027. Domestically, strengthening our presence across regions, we also added to our series of regional State Power Conclaves.

I am personally proud that today, IEEMA stands as a thriving association of over 1,100 members. As our membership continues to grow, we remain committed to deepening our engagement, adopting innovative outreach methods, and expanding our avenues of connection.

Looking ahead, I am sure the new presidium will take IEEMA to greater heights – both domestically and globally. My heartfelt gratitude to everyone across the industry and within IEEMA for your support through my tenure and my best wishes for exciting times ahead.

A handwritten signature in blue ink, reading "Vikram Gandotra".

VIKRAM GANDOTRA

Dear Readers,

In this edition's Samvaad, I am pleased to write about our Annual Convention and 79th AGM, along with the details of our new office bearers. I welcome IEEMA's new leadership and take this opportunity to introduce our new Presidium for 2026-26: Mr Siddharth Bhutoria, Director of RTS Power Corporation Ltd, has assumed charge as President; Mr Hartek Singh, Director of Hartek India Pvt Ltd, as President-Elect; and Mr Amit Kumar, Vice President & Head, MPS of Schneider Electric India Pvt Ltd, as Vice President for the upcoming term.

I would like to thank IEEMA President 2025-26 Mr Vikram Gandotra, Director (Industry & Policy) at Siemens Ltd, for his unwavering dedication, commitment, and encouragement to IEEMA during his Presidential tenure.

Looking ahead, with the new Presidium, IEEMA is confident of continuing to strengthen our focus on policy advocacy matters, government interactions, further promoting the domestic electrical industry and growing our global footprint manifold.

Our recently held IEEMA Annual Convention and the 79th AGM was a testament to our vision of "Winning the Decade for An All-Electric Future". We were honoured and privileged to have with us Mr Jamshyd Godrej, Chairman & Managing Director, Godrej Enterprise Group and Chairman & Managing Director, Godrej and Godrej & Boyce Mfg Co Ltd, who delivered the Keynote Address at the Special Plenary on 'Winning the Decade'.

Eminent industry speakers at the Convention included Mr Srinath Ramakrushnan, Co-founder & COO, Zetwerk; Mr Rajesh Nair, Senior Vice President, Tata Electronics Ltd; Mr Mustafa Wajid, Managing Director & CEO, MHM Holding Pvt Ltd; Mr Vishal Mehta, Managing Director & Partner and Head of Energy, BCG India; Mr Vimal Kejriwal, Managing Director, KEC International Ltd; Mr Bharat Jaisinghani, Jt Managing Director, Polycab India Ltd; Mr Owen Xavier, Supply Chain Development & Localisation Lead, EDF – Développement Nucléaire International, France; Mr Rajat Gupta, Senior Partner, McKinsey & Company; Mr Rishabh Desai, Director, APAR Industries Ltd; Mr Rohit Pathak, Past President, IEEMA; CEO, Birla Copper, Hindalco Industries Ltd; among other industry veterans.

The Convention explored critical themes revolving around growing global footprint, energy transition and future trends, AI and the transformation of the electrical sector, emerging demand and business opportunities, new and disruptive business models,



and the evolving electrical ecosystem and the opportunities ahead.

Earlier last month, IEEMA represented India's electrical equipment manufacturing industry at CIGRE Paris 2026, a leading global platform for knowledge exchange and innovation in the power sector. IEEMA's stall was inaugurated by Dr. Shalia Shah, Commercial Counsellor, Embassy of India, Paris, in the presence of IEEMA members.

Expanding the skilling initiative, IEEMA and the Skill Council for Green Jobs signed an MoU to strengthen skill development in the green energy sector. Earlier, IEEMA recently inaugurated a skills training programme under its CSR initiative on Electrical Safety at two locations – Vadodara and Kolkata, with the aim of promoting practical learning and a stronger culture of safety.

IEEMA also organised a stakeholders meeting of smart meter manufacturers and chip manufacturers to discuss the requirements of the industry and potential collaborations.

We started our regional outreach for ELECRAMA 2027 with the first roadshow in Chennai. I am excited for the upcoming roadshows in Bhopal and Bengaluru in October, as well as a host of other exciting developments related to ELECRAMA. We are also gearing up for the upcoming Metering India in Delhi and the CableWire Conference in Mumbai.

Wishing each one of you the joys of the coming festive season and a happy Dussehra in advance!

CHARU MATHUR

Contents

Volume 18 • Issue No. 2 • October 2026

CIN U99999MH1970GAP014629

Official Organ of Indian Electrical & Electronics

Manufacturers' Association

Member: The Indian Newspaper Society

From the President's Desk
Samvaad**12**
14**For suggestions and feedback, please write
to us on editor.ieemajournal@ieema.org**

COVER STORY

**IEEMA 79th AGM & ANNUAL
CONVENTION 2026** **16**

Themed 'Winning the Decade for An All-Electric Future', IEEMA's Annual Convention 2026 focused on future frontiers, enhancing global footprints, and creating home-grown giants and value, with the **79th Annual General Meeting** paving the way for the coming year.



FOCUS

**Power Systems in the Age of AI:
Engineering Electrical Infrastructure for
the Next Demand Revolution** **36**

This article by **Madhava Narasimha Murthy Nedunuri**, a senior MEP leader with leadership roles at **Urbanac Infra Projects, IL&FS Engineering, Shapoorji Pallonji and HCC**, examines the historical evolution of power systems and explores why AI represents a new demand paradigm rather than simply another increase in electricity consumption.

**Indian Power Grid By 2030: Challenges &
Strategic Solutions** **66**

While India's power capacity expansion will significantly strengthen the country's clean energy transition, it will also present new challenges for grid management. Ensuring grid stability will require advanced technologies, robust transmission infrastructure, energy storage systems, and effective grid-balancing mechanisms, writes **Biswanath Sahu**, **President (Projects), JPW Infratech Pvt Ltd, Ex-HOP NTPC, Khargone**.

INSIGHTS

**The Complex Chemistry and Engineering
Behind EV Batteries – Part-3** **53**

In Part-3 of this technical paper, **SV Varadarajan**, **Retired Technical Director, M. N. Dastur and Company (Pvt) Ltd, Chennai**, focuses on the comparison of main types of batteries, key minerals in a typical Li-ion battery, sodium-ion batteries, solid-state batteries, various conformity battery standards, among others.

**Dissolved Gas Analysis of Solar Power &
Inverter Duty Transformers** **71**

CL Krishnaiah, **Managing Director, Aishwarya Associates**, in this paper describes the reasons for gas generation and methods of analysis as stipulated in IEC 60599 and IEEE C 57.104.

SPECIAL REPORT

EV Sales: 25% Growth in 2025-26

49



This report delves into the rapidly expanding electric vehicle and charging infra sectors, the role of states in propelling the transition towards an electric future, and more...

INTERACTION

“Sustainability will remain central to our R&D.”

79

- Sriram Rangarajan, CEO, Ultravolt Wires & Cables

IEEMA EVENTS

ELECRAMA 2027 Roadshow – Chennai

80



The ELECRAMA 2027 Roadshow Series kicked off in Chennai, marking the beginning of 20 roadshows across India.

EDF-France Nuclear Workshop

82



IEEMA organised a workshop with EDF-France to enable Indian electrical equipment manufacturers to explore global avenues.

IEEMA ACTIVITIES

Training Programme on Electrical Health & Safety for Industrial Workers

84

IEEMA launches Electrical Safety Training in Vadodara

85

IEEMA Workshop explores Design-in-India Chips in Smart Meters

86

IEEMA at CIGRE Paris 2026

86

IEEMA signs MoU with Skill Council for Green Jobs

87

APPOINTMENTS

Bharat Bijlee appoints Khushru Vakharia as VP-Magnet Technology Machines

70

POLICY UPDATES

88

- CEA proposes amendments to technical standards for construction of electric plants and electric lines.
- India, Germany strengthen cooperation on energy security and low-carbon development.
- India-EU FTA opens opportunities across manufacturing, technology, clean energy sectors.
- MHI amends Phased Manufacturing Programme for N2 and N3 e-trucks under PM e-drive.
- JSERC notifies State Grid Code Regulations, 2026.
- Shri Piyush Goyal highlights USD 200 billion investment potential in India's data centre industry.
- MNRE invites proposals for concentrating solar thermal technology for Indian industry.
- India approves additional power exports to Nepal amid hydropower disruptions.
- UERC finalises Framework for Resource Adequacy Regulations, 2026.
- India highlights clean energy and regulatory reforms at G20 Energy Abundance Ministerial Meeting.

NEWS

NATIONAL

90

- POWERGRID wins transmission project for 6 GW RE evacuation in Rajasthan.
- Mahanadi Coalfields Limited files DRHP for IPO.
- SJVN commissions Buxar Thermal Power Project Unit-II.
- Maharashtra signs MoUs with JSW Energy and Torrent Power for nuclear projects.
- POWERGRID wins Lakadia REZ Phase-II project in Gujarat under TBCB.
- REC conducts India's first pilot issue of tokenised corporate bonds.

- CTUIL revises benchmark project costs, land requirements for RE projects.
- Odisha Cabinet approves Rs159.49 billion transmission expansion plan.

INTERNATIONAL 91

- BRICS countries reaffirm commitment to climate action, clean energy.
- NTPC invites global EoI for sodium-ion BESS pilot.
- ADB to support RE projects in Madhya Pradesh.
- Malaysia announces 250 MW RE FiT quota for 2027.
- Hitachi Energy invests USD 300 million in China to expand transformer manufacturing.
- South Korea's LS Electric, GE Vernova establish VSC-HVDC JV.

CORPORATE 92

- Avaada Group to invest Rs100 billion in green industrial campus in Haryana.
- Waaree Transpower to invest Rs1.92 billion in transformer manufacturing facility.
- Avaada Ventures plans Rs35.15 billion NCD and USD 398 million ECB raise.
- Oriana Power approves Rs1.18 billion investment in three subsidiaries.

POWER STATISTICS

- Global Scenario 93
- Indian Scenario 94

IEEMA DATABASE

- Basic Prices and Indices 95
- Production Statistics 96

PRODUCT SHOWCASE

Multifunction Power & Energy Monitor Model 97

AD INDEX 98

SHOCKS & SPARKS 100

Corporate Coups – By RG Keswani

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

Edited and published by Ms. Charu Mathur on behalf of Indian Electrical & Electronics Manufacturers' Association. Printed by Deepak Ramchandra Wadekar 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. Published at 501, Kakad Chambers, 132, Dr. Annie Besant Road, Worli, Mumbai 400 018.

EDITORIAL BOARD

ADVISORY COMMITTEE

Founder Chairman The late RG Keswani	Chairman Sunil Singhvi
Members Sunil Singhvi Rohit Pathak A Naveen Kumar	R Krishnakumar Mustafa Wajid Atul Arya Imteyaz Siddiqui
Editor Charu Mathur	Statistics & Data Incharge Ninad Ranade
Sr Executive Officer Corporate Communications and IEEMA Journal Seraphina D'souza	
Printed at Indigo Press (India) Pvt Ltd	Designed by Varghese Sakariya

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.

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

STATE HEADS

Andhra Pradesh & Telangana: Sairam Rayepeddi
Mobile: +91 96423 45691
Email: sairam.rayepeddi@ieema.org

Haryana, Punjab & Himachal Pradesh: Rajnish Kaushik
Mobile: +91 99911 10246
Email: rajnish.kaushik@ieema.org

Jammu & Kashmir: Mohammad Irfan Parray
Mobile: +91 98584 55509
Email: irfan.parray@ieema.org

Maharashtra, Goa & Gujarat: Rajesh Parab
Mobile: +91 97022 69598
Email: rajesh.parab@ieema.org

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

Uttar Pradesh, Uttarakhand & Madhya Pradesh:
Ashish Vikram
Mobile: +91 98733 05589
Email: ashish.vikram@ieema.org