Issue No. : 6
January - March 2025

# VIDYUT ANUSANDHAN SAMACHAR

QUARTERLY NEWSLETTER


## CENTRAL POWER RESEARCH INSTITUTE

(Ministry of Power, Govt. of India)
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# Contents



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# ABOUT CPRI

Central Power Research Institute (CPRI) was established by the Government of India in 1960. It became an Autonomous Institute in the year 1978 under the aegis of the Ministry of Power, Government of India. For the last six decades, CPRI has been rendering dedicated service to the Power Sector.


Over the years, CPRI has developed expertise in Generation, Transmission, Distribution Systems and has established world-class facilities for research and testing in the areas of High Voltage, High Power, Short Circuit, Power Capacitors, Power Cables, Solar PV, Smart Metering & AMI, Power System Studies, Energy Studies, Tower Design, Vibration Studies, Seismic Performance, Liquid Dielectrics, Diagnostics, Condition Monitoring, Cybersecurity, Smart Grid Systems, Energy Storage, RLA studies and development of newer materials for Power Sector.

## Activities of CPRI

- Applied Research in Power Systems Engineering.
- Independent Third-Party National Laboratory for Testing & Certification
- Consultancy & Field-Testing Services
- Specialized Training Programmes

# DIRECTOR GENERAL's MESSAGE

It gives me pleasure to present the sixth issue of Vidyut Anusandan Samachar for the quarter January to March 2025. This period has been marked by notable achievements in R&D, with CPRI making significant progress through new collaborative research projects focused on emerging technologies like cyber security, energy internet. Our officers continue to excel, with several patents granted in recognition of the innovative work at CPRI—my sincere compliments to all involved. This quarter also saw the celebration of the 65th Institute Day of CPRI, a proud milestone in our journey, with dignitaries from the Ministry of Power, IISc, and DRDO gracing the occasion and encouraging the staff. I am particularly encouraged by the momentum gained under the SAMARTH mission projects, which are driving forward our commitment towards providing clean energy for our future generations.

Shri. B A Sawale,
Director General, CPRI

# RESEARCH HIGHLIGHTS

## Key Research Highlights

1. The Pre-Ph.D Comprehensive Viva-Voce Examination for Smt. Nithya V (Research Scholar, Ph.D (Engg.) under Visvesvaraya Technological University, Belgaum through CPRI Research Centre) was held on 17th January, 2025 at CPRI Bangalore. Her Ph-D topic is "Development of Polyaryl Ether Ketone/ Polyhedral Oligomeric Silsesquioxanes Nano Composites for PV cable applications."
2. A meeting was organized on 9th January 2025, with Member (Planning)-CEA, utilities, and industry representatives from the power sector.
   a. The agenda was "Discussion on Research Areas for Indigenization of Imported Power Equipment."
   b. A list of technologies for indigenization was identified during the meeting.
3. Meeting with CEA, New Delhi for streamlining R&D Schemes was held 21st January 2025.
4. A Meeting under the Chairmanship of DG was held on 14th March 2025 with Senior Officials of CPRI regarding formation of a dedicated research vertical.

## Project under focus

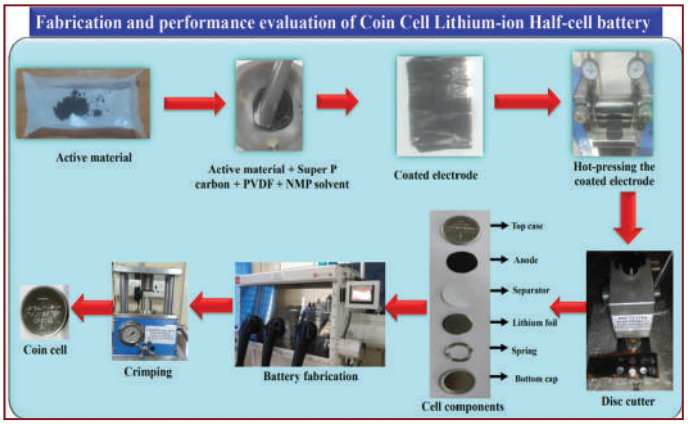
Development of High-energy density Composite materials for Fast-charging Lithium-ion Battery

**Project Investigator:** Dr. P. Chanrasekhar, JD, EATD
The work carried out under the project is as follows:

## 1. Half-Cell Fabrication

The anode's active material is a silicon and graphite composite that was made by mixing. The Additional raw materials include PVDF (polyvinylidenefluoride) as a binder, NMP (n-methyl 2-pyrrolidone) as a solvent, and Carbon Black as an additive.The other raw materials are combined uniformly with the anode active material. To make the electrode slurry, this slurry was then applied on Cu-foil (current collector). And cut the electrode by disc cutter and fill the electrolyte inside the glove box and porous polypropylene (PP) is used as a separator and crimp it by crimping machine

An electrochemical work station has been used to investigate the electrochemical performance of silicon-graphite composite as the working electrode in a lithium-ion coin cell (CR2032) with lithium metal as the reference electrode (half-cell).The performance of Half coin cell is evaluated by measuring the parameters like Charge Capacity, Discharge Capacity, Columbic Efficiency, Charging Time and Discharging time.

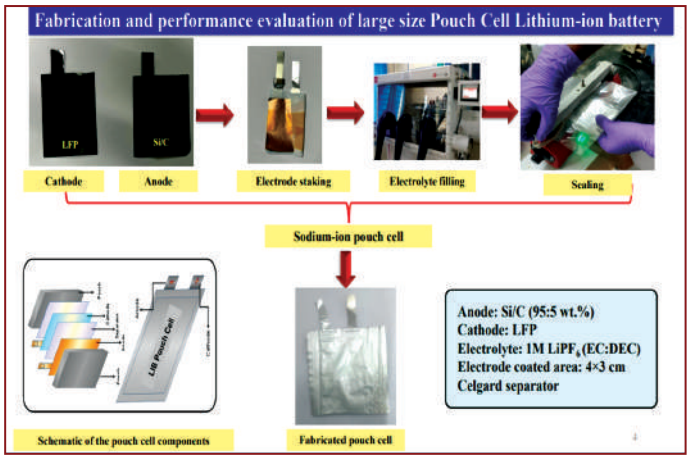



## 2. Full Coin Cell Fabrication

By combining silicon graphite, a silicon/graphite composite material was created and used as the anode active material. Additional raw materials include PVDF (polyvinylidenefluoride) as a binder, NMP (n-methyl 2-pyrrolidone) as a solvent, and carbon black as an additive. To create the electrode slurry, all of the raw materials are combined uniformly with the anode active material. To create the electrode, this slurry was then applied on Cu-foil, or current collector. The anode portion of the whole cell is the coated electrode. LCO ( lithium cobalt oxide) was used as the cathode. The prepared electrode above has been cut using an electrode disc cutter for use as the anode in the coin cell procedure. The remaining components of the coin cell are put within the glove box. Additionally, the cell is crimped.

## 3. Pouch Cell Fabrication

By combing silicon graphite, a silicon graphite composite material was created and was used as anode active material for anode and the Lithium Iron Phosphate (LFP) is a cathode active material. PolyvinylideneFluoride (PVDF) as a binder, n-methyl 2- Pyrrolidone (NMP) as a solvent, and carbon black as an additive. By combing active material and raw materials slurry to be prepared and slurry is coated on foil (anode on cu foil and cathode on Al foil) cut the electrode by disc cutter and fill the electrolyte inside the glove box.




## Patents Granted

- **Patent Title:** Beneficiated Fly Ash Cenospheres as a Resource Material for Manufacture of Polymer Composites
  **Patent Number:** 557400 Date: 02.01.2025
  **Inventors:** Shri.K. Suryanarayana, Dr. M. Shekhar Kumar and Dr. S. Seetharamu

## Patents Filed

- **Patent Title:** Regeneration of Transformer Oil Using Membrane and Percolation Techniques: A Sustainable Approach
  **Inventors:** Dr. Moumita Naskar, Ms. Ankita Deb, Sri. Manis Kumar, Sri. Manas Chakraborty and Dr. Prabhat Kumar Maiti (Retd.)
- **Patent Title:** Labscale Reactor for the microwave steam plasma gasification of pulverized solid fuels
  **Inventors:** Dr. V.Saravanan and Dr. R.K.Kumar
- **Patent Title:** Simulated High Temperature boiler tube corrosion testing system under controlled Flue Gas Environments
  **Inventors:** Dr. R.K.Kumar, Dr. V.Saravanan and Mr. Laxman Rao
- **Patent Title:** Advanced Photocatalytic Water-Splitting Reactor with Tio2@Zno Core-Shell Photocatalyst Coated Nafion
  **Inventors:** Alva's Institute of Engineering and Technology, Moodbidri and
  Central Power Research Institute, Bengaluru (Dr.M.G.Anandakumar).
- **Patent Title:** Enhancing Proton-Conductivity Retention and Structural Rigidity of Nafion Membranes via Glutaraldehyde Crosslinking followed by Sulfonation
  **Inventors:** Alva's Institute of Engineering and Technology, Moodbidri and
  Central Power Research Institute, Bengaluru (Dr.M.G.Anandakumar).

# TECHNICAL SPOTLIGHT

## ❖ Inauguration of 40kA Temperature Rise Test Facility at CPRI, Bengaluru

**Shri. Srikant Nagulapalli, IAS, Additional Secretary, Ministry of Power** inaugurated the 40kA Temperature Rise Test Facility at CPRI, Bengaluru in the presence of Shri B. A. Sawale, Director General and senior officers of CPRI on 16th January 2025. This facility will cater the testing needs of manufacturers of switchgear and allied equipment.

## ❖ Inauguration of Dynamic Laboratory at CPRI, Bengaluru

**Shri Srikant Nagulapalli, IAS, Additional Secretary, Ministry of Power** inaugurated the Dynamic Laboratory at CPRI, Bengaluru on 16th January 2025. Shri B. A. Sawale, Director General and senior officers of CPRI were present.

This laboratory will cater to Seismic, Vibration and shock testing of Power equipment.


## ❖ Inauguration of Smart Meter & Cyber Security Testing Laboratory at UHVRL, CPRI, Hyderabad

Smart Meter & Cyber Security Testing Laboratory at UHVRL, CPRI, Hyderabad was inaugurated by Shri B. A. Sawale, Director General, CPRI along with Shri T. Jagath Reddy, Director, TSTRANSCO on 18th February 2025. Er. Ashok Kumar Khatua, CE, CPWD and Dr. T. Bhavani Shanker, Additional Director were present during the occasion.

## ❖ 22nd Meeting of Asian Members of High Power Laboratories (AMHPL)

CPRI hosted the 22nd Asian Members of High Power Laboratories (AMHPL) meeting on 19th & 20th February 2025 at Hyderabad. Shri B. A. Sawale, DG, CPRI chaired the meeting. AMHPL is an association of Asian High Power Laboratories comprising of High Power Laboratories of India (CPRI), Japan High Power Laboratories (JSTC), South Korean High

Power laboratory (KERI), China High Power Testing Laboratory (CHPTL). The participants deliberated on matters concerning uniform interpretation of the standards on electrical power equipment, latest development trends in testing, enhancement of test facilities and technical issues relating to short circuit testing of various electrical equipment used in network.

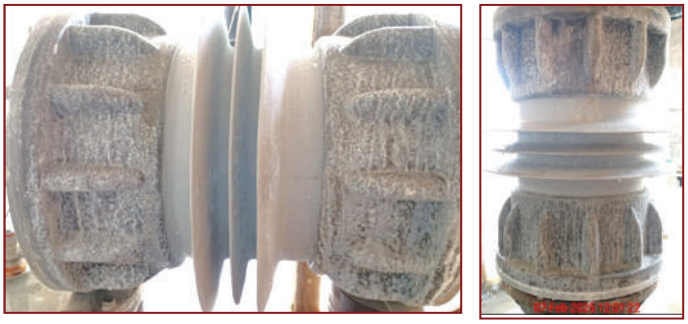
*DG CPRI addressing the dignitaries of AMHPL*

*AMHPL Representatives*

❖ Shri Gurdeep Singh, Chairman and Managing Director, NTPC visited CPRI, Bengaluru on 20th March 2025 and interacted with the officers of various laboratories of CPRI.

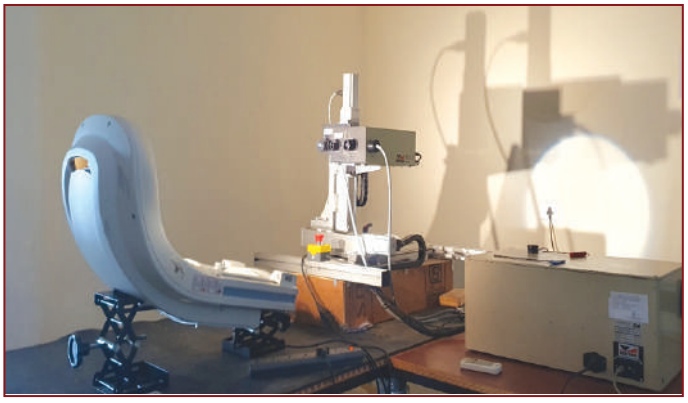
## First Time Tests

❖ **High Voltage Division, CPRI Bengaluru** carried out the Tracking and Erosion test through salt fog method for a duration of 2000 hours for the first time on 66kV to 400kV Composite Hollow Core Insulator. The test was performed as per customer request and in accordance with IEC 62217:2012. The sample was manufactured by M/s. Modern Composite Private Limited, Abu Road, Rajasthan.



*Test samples after 2000-hour exposure to salt fog*

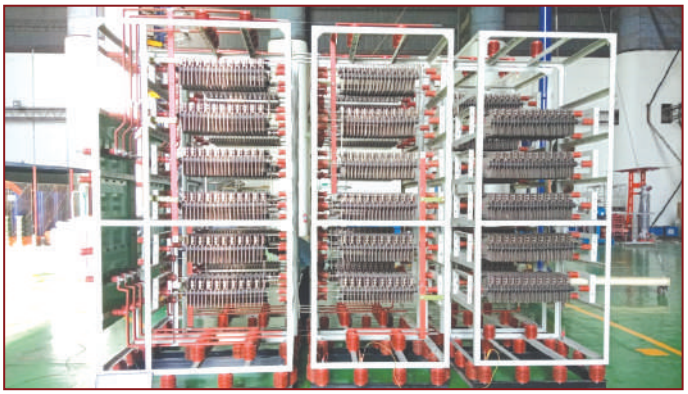
❖ **Energy Efficiency and Renewable Energy Division, CPRI Bengaluru** carried out photobiological safety test for the first time, on an Infant Warmer - medical device as per IS 16108: 2012 / IEC 62471: 2006



❖ CPRI Bhopal, Station-1 carried out 18000kVA, 33/(4*0.69) kV Inverter Duty Transformer of M/s. Nucon Switchgear Pvt. Ltd., Bhiwadi, Rajasthan for ability to withstand dynamic effects of short circuit test as per IEC 60076-5:2006. This is the highest rating multi winding transformer tested for the first time.

## Special Tests

❖ **High Voltage Division, CPRI Bengaluru** has successfully conducted the Lightning Impulse Voltage Withstand Test and Dry Power Frequency Voltage Withstand Test on 12kV MV Current Limiting Punched Stainless Steel Resistor Banks. These resistor banks are designed to regulate short-circuit currents during Short-Time Current (STC) testing of switchgear, instrument transformers, and other electrical equipment. They are intended for installation alongside the Short-Circuit testing station at CPRI, Nashik.



*Resistors banks under Lightning Impulse Voltage Withstand Test*

❖ **Energy Efficiency & Renewable Energy Division, CPRI Bengaluru** carried out solar radiation test for the first time on Automatic Teller Machine (ATM). The equipment was exposed to the solar radiation of 600+/-50 W/m2 for 4 hours at 40 +/- 5° C ambient temperature.

❖ **CPRI Bhopal** has carried out impulse test on shunt reactor for RTL Nashik. During impulse testing of high-voltage (HV) reactors, primary challenge is to accurately control and maintain the test Impulse voltage waveform, ensuring it adheres to standard requirements, regarding front time, time to half, and overshoot rate.

Rating of reactors are 11 kV, 39 Ohms, 11 kV, 24 Ohms, 11 kV, 3.6 Ohms, 11 kV, 5.4 Ohms, 11 kV, 0.9 Ohms, 11 kV, 0.6 Ohms. By using the Glaninger's circuit, the correct impulse waveshape was achieved as per standard and the test was completed satisfactorily.

## Consultancy and Field Testing

❖ **Power System Division, CPRI Bengaluru** has carried out "Comprehensive Study of Power Transmission Network of Delhi Comprising of Generation and Transmission" for Delhi Transco Ltd (DTL). The scope of work included load flow analysis, short circuit analysis, reactive power compensation studies, TTC/ATC calculations, transient stability studies and contingency analysis. Dr. J. Sreedevi, Additional Director & HoD, Dr Tulika Bhattacharjee, Engg Officer Gr 4, and Mr Ved Prakash Yadav, Engg. Officer Gr 2, visited DTL Office at New Delhi on 28.02.2025 for presentation of the findings of the study before CMD of DTL.

*CPRI Team at DTL Office in New Delhi*

# OVERSEAS CUSTOMERS

## Testing for overseas customers

CPRI rendering testing services to many overseas customers. Few of those services are listed below;

- **High Voltage Division, CPRI Bengaluru** has successfully conducted the chopped wave lightning impulse test on 400kVA and 630kVA transformers with plug-in type HV bushings, in accordance with IEC 60076. These transformers were manufactured by M/s. Saudi Transformers Co. Ltd., Dammam, Kingdom of Saudi Arabia.

*CPRI Officials along with customer and 400kVA Transformers under test.*

- **CPRI Bhopal** carried out ability to withstand dynamic effects of short circuit test as per IEC 60076-5:2006 on 300kVA, 24/0.416kV Distribution Transformer of M/s. Thai Maxwell Electric Ltd., Thailand. The test was witnessed virtually by the customer.

- **CPRI Bhopal** carried out ability to withstand dynamic effects of short circuit test as per IS 60076-5:2006 26000kVA on 220/11kV Generator Transformer of M/s. BHEL Jhansi. Test witnessed by officers from M/s Raghuganga Hydropower Ltd., Nepal.

- Impulse Voltage withstand Test & Temperature Rise Test tests was conducted on 12kV, 1250A, 31.5kA, HT Panel by M/s. Reverie Power & Automation Engineering Ltd., Bangladesh at Supplementary Test Laboratory, STDS, Bhopal.

- **CPRI Bhopal** carried out continuous current test on 12kV, 2000A, 31.5kA, HT Panel of M/s. Reverie Power & Automation Engineering Ltd., Bangladesh.

- **CPRI Bhopal** carried out Temperature Rise Test on 315kVA, 11/0.45kV Distribution Transformer of M/s. Reverie Power & Automation Engineering Ltd., Bangladesh.

- **CPRI Bhopal** carried out Ingress Protection IP-4X test on 12kV, 1250A VCB Panel of M/s. Reverie Power & Automation Engineering Ltd., Bangladesh.

- **Energy Efficiency & Renewable Energy Division, CPRI Bengaluru** carried out on 22kW AC Electric Vehicle Charger underwent comprehensive Electromagnetic Interference (EMI) and Electromagnetic Compatibility (EMC) for M/s. ChargeNET International Pvt. Ltd., Sri Lanka. The test was conducted as per the standards of IS 17017: Part 21: Sec 2: 2019 / IEC 61851-21-2: 2018, specifically addressing EMC requirements for off-board EV chargers. Emission tests were performed both in waiting and charging modes.

# INDUSTRY TRENDS

## Technical Article

### The Digital Substation: AI and ML Empowering Electrical Equipment Management

As power systems become more complex and reliability demands increase, digital technologies are reshaping substation management. Artificial Intelligence (AI) and Machine Learning (ML) are transforming equipment monitoring, diagnostics, and maintenance — enabling predictive analytics, early fault detection, and smarter decision-making. By minimizing downtime and extending asset life, AI/ML are driving the future of intelligent, resilient power networks[1].

#### The Rise of AI/ML in Power Systems

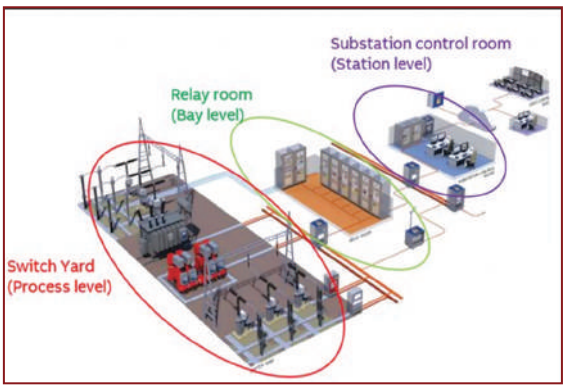
In today's evolving energy landscape, substations are transforming into intelligent, self-monitoring systems. Powered by Artificial Intelligence (AI) and Machine Learning (ML), the "Digital Substation" enables predictive analytics, real-time monitoring, and automated decision-making for smarter equipment management. The block diagram below represents a typical architecture of a digital substation enhanced by AI/ML capabilities[2]. Electrical equipment is interfaced with IoT sensors that feed operational data over a communication network to a data centre or edge computing node. AI/ML models then analyse this data to produce actionable insights, enabling real-time monitoring, predictive maintenance, and improved asset management.


AI and ML are enhancing substation reliability, efficiency, and safety through predictive maintenance, anomaly detection, and energy optimization. By learning from real-time and historical data, substations are becoming smarter and more adaptive[2]. As grid modernization accelerates, AI/ML-driven digital substations are key for achieving higher automation, resilience, and intelligent control in future power systems.

#### Why Focus on Electrical Equipment in Substations?

Critical assets like Current Transformers (CTs), Voltage Transformers (VTs), Circuit Breakers, Transformers, and Protection Relays form the backbone of power system reliability.

- CTs and VTs provide precise measurements for protection and control.
- Circuit Breakers isolate faults to prevent widespread damage.
- Transformers manage voltage levels for efficient distribution.
- Protection Relays detect and respond to system faults.



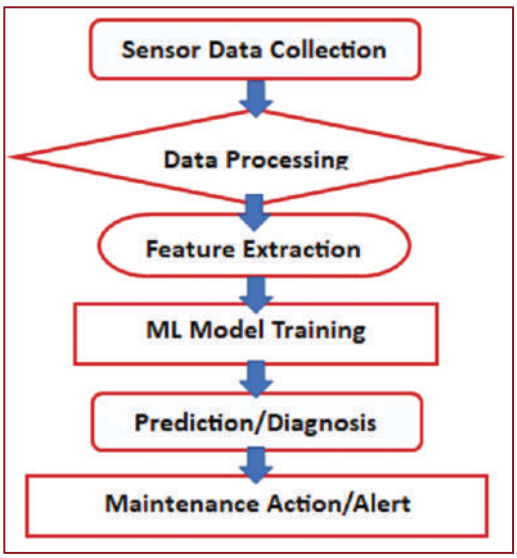

Failures in these components can cause instability, outages, and costly repairs. AI and ML enhance their monitoring, enabling early fault detection, predictive maintenance, and greater system resilience.

#### Key Applications of AI/ML in Substation Equipment Management

AI and ML are revolutionizing substation management by optimizing performance, reducing downtime, and enhancing asset reliability through:

- **Predictive Maintenance:** AI models forecast asset conditions, such as transformer oil degradation, enabling timely maintenance and preventing costly failures.
- **Anomaly Detection:** Continuous monitoring identifies abnormal patterns, providing early warnings for potential faults like breaker failures.
- **Load Forecasting and Equipment Optimization:** AI predicts power demands, ensuring efficient load distribution and preventing equipment overload or underutilization.
- **Health Indexing of Assets:** AI-based health scores prioritize maintenance schedules, focusing attention on the most critical and vulnerable equipment.

These applications deliver deeper operational insights, lower costs, and drive higher substation reliability.




This flowchart illustrates the sequential steps involved in AI/ML-based equipment monitoring. It starts with real-time sensor data collection from critical substation assets, followed by data preprocessing to remove noise and inconsistencies. Key features are extracted to train machine learning models that can predict equipment conditions. Predictions trigger preventive maintenance actions, reducing the likelihood of failures.

## Global Trends and Case Studies

AI and ML adoption in substations is gaining momentum globally:

- **PG&E (USA):** AI-based predictive maintenance cut transformer failures by 20% and improved asset life management[4].
- **National Grid (UK):** Machine learning for condition monitoring delivered 15% savings in maintenance costs and boosted reliability.
- **China Southern Power Grid:** AI inspection robots reduced manual efforts by 40% and enhanced high-voltage safety.
- **CPRI (India):** Promotes active research on AI-driven transformer diagnostics and smart CT/VT monitoring supports grid modernization.
- **IEA Forecast:** By 2030, digital technologies could cut substation O&M costs by 25% and halve fault detection times[3].

These cases show AI/ML are already transforming substation management, delivering tangible reliability, cost, and safety benefits.

| Benefits | Challenges |
|---|---|
| **Improved Uptime:** Fewer outages, higher availability. | **Data Availability:** Need high-quality, real-time data. |
| **Reduced Maintenance Costs:** Optimized maintenance, longer asset life. | **Cyber security Risks:** Increased threat exposure. |
| **Better Planning:** Smarter decisions through forecasting and health insights. | **Integration Issues:** Complexity in merging with legacy systems. |

## Future Outlook: Towards Autonomous Substations

Substation management is evolving toward full autonomy, driven by AI, IoT, and digital innovations[3]. Edge AI enables real-time decisions at the equipment level, reducing latency. IoT sensors provide continuous, high-resolution monitoring for deeper insights into asset health. Digital Twins allow predictive simulations and real-time diagnostics without operational disruption. These technologies pave the way for self-monitoring, self-healing, and self-optimizing substations, ensuring enhanced reliability, efficiency, and grid stability[4].

## Conclusion

AI and ML are transforming substation management, enhancing uptime, reducing costs, and improving efficiency. Despite challenges in data quality, cyber security, and integration, advancements in edge computing, IoT, and digital twins are driving the shift towards autonomous substations. As research and global deployments grow, digital substations powered by AI/ML will become central to future energy infrastructure.

## References:

1. IEEE Power & Energy Society, AI Applications in Power Systems, IEEE PES Technical Report, 2021.
2. CIGRÉ Technical Brochure No. 807, Artificial Intelligence Applications in Substations, Working Group D2.52, 2020.
3. https://www.iea.org/reports/digitalisation-and-energy
4. Pacific Gas and Electric Company (PG&E), Grid Modernization and Predictive Maintenance Initiatives, Technical Summary Report, 2021.

**Author(s)**: Mr. S.Arjuna Rao, JD &
Mr. Himangshu Roy, JD & HOD, Station-II, STDS

# CONFERENCE/ SEMINAR/ WORKSHOP/ TRAINING

❖ BD&CBD and IEEMA jointly organized a "2-day Awareness Workshop on EEQCO-2024 (Electrical Equipment Quality Control Order) for Low Voltage Switchgear Division" on 21-22, January 2025 at CPRI, Bengaluru. About 125 delegates representing BEE, IEEMA, Testing laboratories, various manufacturers participated in the event. Laboratory visit was arranged for the participants.


❖ Power Systems Division had organized a series of workshops on Power Systems Protection during 17-19 March 2025 for engineers of Indian Oil Corporation Limited (IOCL). The workshops on (i) Generator Protection (ii) Substation Protection and (iii) Testing of Numerical Relays were conducted.

This workshop was attended by new entrants from IOCL Mathura, Panipat, Paradip, Haldia, Bongaigaon, Barauni and AOD Refineries. The workshop deliberated on topics such as General Overview of Power Systems Protection, Load Flow & Short Circuit Analysis, Generator Protection, Role of CT & PT in Power System Protection, Line & Cable Protection, Bus Bar, Feeder Backup & Transformer Protection, Motor Protection & Relay Coordination and Testing of Power System Protection Relays.

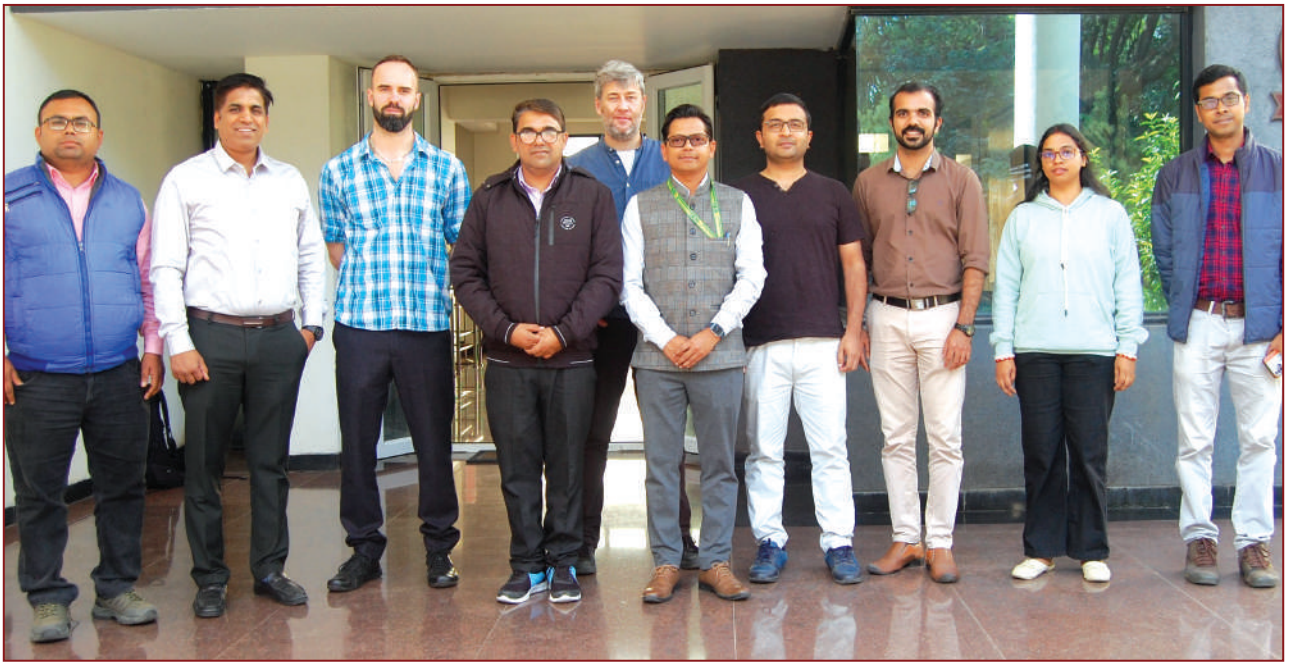
Visits to Tower Testing, Pre-Qualification Cable Testing, Earthquake and Vibration Simulation, High Voltage Testing and Relay Testing Laboratories of CPRI were arranged for the participants of the workshop.

❖ Dr Samir Kumar Nath, Joint Director (R&DM) was the Guest of honor for two days state level Technical Exhibition and Competition - "Navitantriks 2025" organized for the engineering college students of Karnataka, on 12th March, 2025 at Mahatma Gandhi Institute of Rural Energy and Development (MGIRED) Campus, Jakkur, Bengaluru.

❖ The High Voltage Division had organised one-day workshop on "Impulse Testing of High Voltage Equipment" during 31st January 2025 at CPRI, Bengaluru. The workshop was inaugurated by Shri. B.A. Sawale, Director General, CPRI. Participants from utilities, electrical equipment manufacturers and academic institutions attended the program.

❖ Electrical Appliances Technology Division (EATD) had organized one-day workshop on “Battery and BESS & Development of Standards for Energy Storage Technologies” at CPRI, Bangaluru. The program was aimed to provide various critical aspects related to Lithium ion batteries and battery energy storage systems used in renewable storage and EV applications. Delegates representing various manufacturers, power utilities and academic institutions participated in the workshop conducted on 07th February 2025. The programme was inaugurated by Director General Shri B. A Sawale. Demonstration on performance testing of batteries and battery packs were arranged during the workshop.

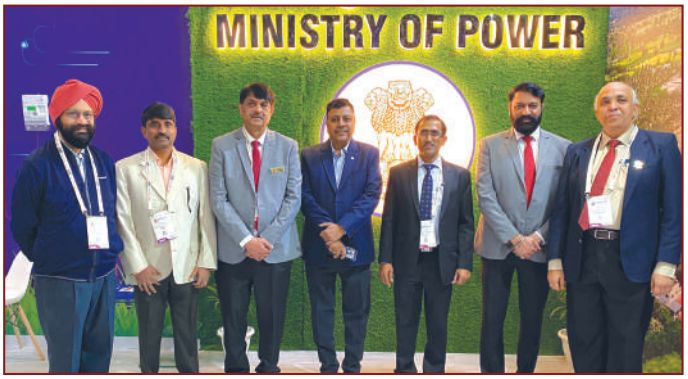

❖ Energy Efficiency & Renewable Energy Division (ERED) organized second phase of ‘Training of Trainers (ToT) on Quality Assurance in PV module Manufacturing’ as part of Indo-German Cooperation Project on strengthening quality infrastructure for the solar industry during 27 - 31 January 2025.



# EXHIBITION PARTICIPATION

## ELECRAMA 2025

CPRI participated in the ELECRAMA Exhibition organised by IEEMA at India Expo Mart, Greater Noida during 22nd to 26th February 2025. Hon'ble Union Minister of Power and Housing & Urban Affairs Shri Manohar Lal Khattar, was the Chief Guest for the exhibition and inaugurated the event.




*CPRI and PGCIL representatives at ELECRAMA 2025 with DG CPRI*

## GRIDCON 2025

CPRI participated in the GRIDCON 2025 Exhibition, organized by Power Grid Corporation of India (PGCIL) during 09th to 11th March 2025 at Yashobhoomi, Dwaraka, New Delhi. Hon'ble Union Minister of Power and Housing & Urban Affairs, Shri Manohar Lal Khattar inaugurated the International Conference cum Exhibition. Hon'ble Union Minster of State for Power and New & Renewable Energy, Shri Shripad Yesso Naik was present during the occasion. CPRI showcased its credentials, test facilities and other activities at the exhibition.


*Foreign visitors at CPRI stall*

## Global Investors Summit 2025

CPRI participated in the '8th Edition of Biennial Global Investors Summit-2025' organized by the Govt. of Madhya Pradesh in Bhopal during 24th and 25th February 2025. The summit was inaugurated virtually by Hon'ble Prime Minister of India, Shri Narendra Modi.

The CPRI stall at the summit was inaugurated by the Unit Head of CPRI Bhopal Smt. Sumbul Munshi. Hon'ble Minister of Ministry of Skill Development, Govt. of Madhya Pradesh Shri Gautam Tejwal has visited CPRI stall.

*Unit Head of CPRI Bhopal inaugurated the stall*

*Hon'ble Minister Shri Gautam Tejwal, Ministry of Skill Development visited CPRI stall*

# EVENTS

## CPRI Institute Day - 2025

CPRI Bengaluru celebrated 65th Institute Day on 16th January 2025. Shri Srikant Nagulapalli IAS, Additional Secretary, Ministry of Power, Govt. of India was the chief guest for the function. Prof. Govindan Rangarajan, Director, Indian Institute of Science, Bengaluru was present as the Guest of Honour. During the occasion, the Jawaharlal Nehru Memorial Lecture on "Airborne Radars- Indian Scenario" was delivered by Dr. D. Seshagiri, Outstanding Scientist and Director of Naval Physical & Oceanographic Laboratory (NPOL), DRDO, Kochi. Shri BA Sawale, Director General CPRI presided over the function. Other units of CPRI has also celebrated Institute day.

*Institute day celebration at CPRI Bengaluru*


*Institute day celebration at CPRI Hyderabad*

## Republic Day Celebration

CPRI & its units celebrated 76th Republic Day on 26th January 2025. DG CPRI & other Unit Heads hoisted the national flag at the respective places.

*Flag hoisted by DG CPRI Bengaluru*

*Republic day celebrations at CPRI, Hyderabad*

## Regional Official Language Awards for outstanding work in Hindi for the Financial Year 2023-24

The Department of Official Language, Ministry of Home Affairs, New Delhi organized 'Joint Regional Official Language Conference' in Jaipur, Rajasthan on 17th February 2025. During the occasion, CPRI, Bhopal was awarded the first prize under Regional Official Language Awards - Region 'A' category for outstanding work in Hindi for the year 2023-24.


## TOLIC Rajbhasha Shield

Central Power Research Institute (CPRI), Bengaluru has been awarded the TOLIC RAJ BHASHA SHIELD – First prize for the excellent performance in the implementation of the official language in the Institute during the year 2023 – 24. The award was received by Shri Swaraj Kumar Das, Director from the Chairman, TOLIC during the Second Meeting of TOLIC held on 10th January 2025 at General Post Office, Bengaluru.

Under the auspices of TOLIC, CPRI was felicitated with a Memento for organising "Kavi Sammelan" for the first time and for conducting essay competition in Hindi for all central government offices at Bangaluru. The memento was received by Sri. Swaraj Kumar Das Director, CPRI.

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# ACCOLADES

Dr. D. Gnanasekaran, Scientific Officer, Dielectric Materials Division Bangaluru received the award for "Research contribution in the field of power sector for the year 2024" on 16th January 2025 CPRI -institute day. The award was jointly presented by Director General CPRI and Director IISc Bangaluru.