

# 2024 IEEE 7TH INTERNATIONAL CONFERENCE ON CONDITION ASSESSMENT TECHNIQUES IN ELECTRICAL SYSTEMS

(CONFERENCE RECORD # 60527)

## IEEE CATCON 2024

22 – 24 NOV, 2024, KOLKATA, INDIA

**SUBMISSION DEADLINE:**  
**11:59 PM IST | MAY 31, 2024**

**CALL FOR PAPERS**

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### Conference Deadlines:

- Paper submission link opens in website: **20th February, 2024**
- Paper submission closes: **31st May, 2024**
- Notification of acceptance: **7th August, 2024**
- Final Camera-ready paper submission: **15th October, 2024**

### IMPORTANT INFORMATION:

- The conference will be run only in-person.
- Maximum page length of a paper: 6
- Paper extra pages: INR 9700 for Indian author(s), or USD 110 for Foreign author(s) per page, up to 2 extra pages limit.
- Pre-registration is required.
- One of the authors of each paper must be registered and present the paper in person at the Conference.
- The organizing committee may grant permission for a substitute presenter upon request by the author(s). In such a case, an extra fee of 1/3 of the full registration fee according to the presenter category needs to be paid.
- Each paper must have one registration. One registration covers up to two papers if the person is a co-author and presenter of the paper.
- IEEE members will get a discount of 10% on the registration fee.
- There will be a 10% administrative fee for any conference registration cancellation. No refunds will be possible after November 20, 2024. Substitutions Permitted.
- IEEE reserves the right to exclude a paper from distribution after the conference, including IEEE Xplore® Digital Library, if the paper is not presented at the conference and if the submission does not meet IEEE standards for scope and/or quality.

Registration fee, which includes the conference registration kit, proceedings in USB, participation in all the sessions of the conference excluding tutorial, lunch, inter-session refreshments and gala dinner is as follows.

Author Category	Indian Delegates (In INR)	Foreign Delegates (in USD)
Academic/ Research Scholar	<b>9000</b> (on or before Oct 15, 2024)	<b>400</b> (on or before Oct 15, 2024)
	<b>10000</b> (Oct 16 – Nov 10, 2024)	<b>500</b> (Oct 16 – Nov 10, 2024)
UG and PG Students**	<b>6000</b> (on or before Oct 15, 2024)	<b>300</b> (on or before Oct 15, 2024)
	<b>7000</b> (Oct 16 – Nov 10, 2024)	<b>350</b> (Oct 16 – Nov 10, 2024)
Industry, R&D Institutes and others	<b>12000</b> (on or before Oct 15, 2024)	<b>500</b> (on or before Oct 15, 2024)
	<b>14000</b> (Oct 16 – Nov 10, 2024)	<b>600</b> (Oct 16 – Nov 10, 2024)

\*\*Limited number of students will be offered discount on registration fee based on application made to the organizing committee within Oct 15, 2024

Conference tutorial will be organized on the forenoon of 22nd November, 2024, details of which, including tutorial fees, will be announced on the conference website in due course of time.

Conference Website: <https://www.catcon2024.com>

2024 IEEE 7th International Conference on Condition Assessment Techniques in Electrical Systems (CATCON 2024) is organized by the Dielectrics and Electrical Insulation Society (DEIS) Chapter of IEEE Kolkata Section. It will be held during November 22-24, 2024, in Kolkata, India.

This conference is being organized for the seventh time, which is in line with the present day requirements in the global scenario of various condition assessment techniques for a variety of electrical systems. Its goal is to provide a broad coverage and dissemination of fundamental research in condition monitoring and assessment among researchers, academics, industry and practitioners. Around 150 delegates are expected to attend and will be one of the biggest gatherings in this field of research. The technical program of 2024 IEEE CATCON will consist of tutorials, invited talks, posters and oral presentations. **Accepted and presented papers will be sent to IEEE for archival and publication in IEEE Xplore® Digital Library.** Research papers describing original work on theories, methodologies, abstractions, algorithms, industry applications and case studies are invited. IEEE CATCON 2024 will not consider abstracts but will consider full papers within the scope of the conference for review.

### THE TOPICS INCLUDE BUT ARE NOT LIMITED TO

#### Track 1:- Condition Assessment of Electrical Equipment and Machines

Condition Monitoring of Solid, Liquid, Gas, and Composite Insulation in Electrical Equipment using Time-Domain and Frequency-Domain Techniques, Dielectric Ageing Mechanisms and their assessment, Nano-Dielectrics, Noise and Vibro-Acoustic Monitoring, Optical Monitoring, Flow, Pressure, Temperature Monitoring, On-line and Real-time Condition Monitoring, Thermography, Modeling and Simulations for Condition Monitoring, Condition Monitoring of Electrical Machines including insulation and allied Instrumentation System.

#### Track 2:- Condition Monitoring Applications using AI and Machine Learning and Allied Techniques

AI-Powered Condition Monitoring, Machine Learning for Fault Detection, Real-time Anomaly Detection, Deep Learning for Equipment Health Assessment, Ensemble Methods for Power System Diagnostics, Pattern Recognition for Fault Classification and Grid Monitoring, Data Mining in Transmission and Distribution Networks, Image Processing for Substation Assessment, Energy-Efficient Computing for Grids, Ubiquitous Computing in Power System Monitoring, Distributed Computing in Substation Health, Adaptive Computing for Grid Condition Assessment.

#### Track 3:- Condition Monitoring applications for Industry including Power Systems and Intricate Electrical Systems

Strategic Planning and Asset Management, Complex Interconnected and Interdependent Systems of Systems (SoS), Gas Insulated Systems (GIS), DC Insulation Systems, Issues related to Smart Grid and Industry Applications, Monitoring Systems and Measuring Devices for High Voltage Power Apparatus, Transmission Lines and Power Generating Units, Power Quality Monitoring and Assessment, Monitoring and Operation of Micro-grids, Condition Assessment of Power System Components employing Power Electronics and Drives, Monitoring of Power System Components involving Renewable Energy Sources, Damage and Failure Analysis, Fault and Cyber Threat Tolerant Power System, Stability, Operation, Planning, Prognostics, and Condition Assessment related to Phasor Monitoring Unit, SCADA, FACTS, TCSC, Active Power Filters, Energy Conversion. Condition Monitoring of LV, MV, HV and UHV Cables and Accessories including AC and DC Cable Systems.

#### Track 4:- Advanced Condition Assessment Applications involving interdisciplinary research

Condition Monitoring of Bioengineering and Biomedical Systems, Advanced Signal Processing for Power System Monitoring, Data-Driven Analytics for Condition Assessment, Integrated Sensor Fusion Methods, Power System Condition Monitoring using Intelligent Diagnostics, Multi-Sensory Approach to System Monitoring, Optimal Asset Management Strategies, Quantitative Risk Assessment in Power Networks, Cyber-Physical Integration for Condition Assessment, Reliability Engineering in Integrated Power Systems.



### Conference Venue:

The conference will be held in the Jadavpur University Main Campus, which is at the heart of Kolkata, one of the largest metropolitan cities of India.

### Local Host:

High Voltage Laboratory, Jadavpur University.

### CONTACT US

For any queries mail to [catcon2024@gmail.com](mailto:catcon2024@gmail.com)