ICAIN-2026
International Conference on Artificial Intelligence and Networking

11th-12th December 2026
Organized by
Universal Inovator & UI-Educon
In association with
Indian Institute of Information Technology, Allahabad

********** CALL FOR PAPERS **********

SPECIAL SESSION ON

Machine Learning and Deep Learning Approaches for EEG Signal Interpretation

SESSION ORGANIZERS:

Dr. Tarun Kumar, Lecturer, Government Polytechnic Kotana Baraut Baghpat, India,
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EDITORIAL BOARD: (Optional)

[Name, University or Organization, Country, e-mail]

SESSION DESCRIPTION:

[This special session aims to bring together researchers, academicians, and industry experts working at the intersection of artificial intelligence and neurophysiology. With the growing availability of EEG data and advancements in machine learning and deep learning, innovative approaches for decoding brain signals have become essential for emotion recognition, cognitive state assessment, mental health monitoring, and brain–computer interface (BCI) applications. This session will highlight state-of-the-art algorithms, robust feature extraction techniques, hybrid AI frameworks, and practical implementations that enhance the reliability, accuracy, and real-time capabilities of EEG signal interpretation. It will provide a collaborative platform to share novel methodologies, benchmark datasets, emerging challenges, and future trends in AI-driven EEG analytics**]**

RECOMMENDED TOPICS:

Topics to be discussed in this special session include (but are not limited to) the following:

- Machine learning models for EEG signal classification and pattern recognition
- Deep learning architectures (CNN, RNN, LSTM, Transformers) for EEG feature learning
- EEG-based emotion recognition, stress detection, and cognitive state analysis
- Hybrid AI frameworks combining ML, DL, and signal processing techniques
- Brain–Computer Interface (BCI) systems powered by AI and neural decoding

- Preprocessing, artifact removal, and feature extraction techniques for EEG analytics
- Multimodal emotion recognition using EEG and physiological signals
- Real-time EEG processing using edge-AI, IoT, and embedded systems
- Benchmark EEG datasets and performance evaluation metrics for AI models
- Applications of AI-enabled EEG analysis in healthcare, education, robotics, and human–machine interaction.

SUBMISSION PROCEDURE:

Researchers and practitioners are invited to submit papers for this particular theme session on **[**Machine Learning and Deep Learning Approaches for EEG Signal Interpretation **]** ***on or before*** **[30th August 2026]**. All submissions must be original and may not be under review by another publication. INTERESTED AUTHORS SHOULD CONSULT THE CONFERENCE'S GUIDELINES FOR MANUSCRIPT SUBMISSIONS at https://www.icain-conf.com/downloads. All submitted papers will be reviewed on a double-blind, peer-review basis.

NOTE: While submitting a paper in this special session, please specify [Machine Learning and Deep Learning Approaches for EEG Signal Interpretation] at the top (above paper title) of the first page of your paper.

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