ICAIN-2025
International Conference on Artificial Intelligence and Networking

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Organized by
Universal Inovator & UI-Educon
In association with
Indian Institute of Information Technology, Allahabad

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

SPECIAL SESSION ON

Machine Learning for Intelligent Communication and Networking Systems

SESSION ORGANIZERS:

Dr. Puneet Sharma
Associate Dean
Unitedworld Institute of Technology
Karnavati University, Gandhinagar, Gujarat, India
dr.puneetsharma9@gmail.com /
dean.uit@karnavatiuniversity.edu.in

Bhanu Prakash Reddy Rella
Golden Gate University, USA
27rellaprakash@gmail.com

Dr. Veera Talukdar
Controller of Examination
Karnavati University, Gandhinagar, Gujarat, India
veera@karnavatiuniversity.edu.in

EDITORIAL BOARD: (Optional)

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

SESSION DESCRIPTION:

Machine Learning (ML) has emerged as a core enabler of innovation in intelligent communication systems and modern networking infrastructures. The integration of ML algorithms into network design, optimization, traffic prediction, anomaly detection, and resource management has significantly enhanced

the adaptability, resilience, and efficiency of such systems. This special session aims to provide a platform for researchers, practitioners, and industry professionals to present their latest findings, applications, and challenges in applying machine learning across various layers and domains of networking and artificial intelligence.

The session invites high-quality contributions that address theoretical foundations, practical methodologies, system implementations, and emerging trends at the intersection of ML and intelligent networking.

RECOMMENDED TOPICS:

Topics to be discussed in this special session include (but are not limited to) the following:
- ➢ Supervised, Unsupervised, and Reinforcement Learning for Network Optimization
- ➢ ML-based Traffic Prediction and Load Balancing in Communication Networks
- ➢ Anomaly Detection and Intrusion Prevention Using Machine Learning
- ➢ Federated Learning in Distributed Networking Environments
- ➢ Deep Learning Models for Wireless and Mobile Networks
- ➢ AI/ML in 5G/6G Network Planning and Resource Allocation
- ➢ Real-Time Decision Making with Edge AI in Smart Networks
- ➢ Transfer Learning and Domain Adaptation for Network Applications
- ➢ Energy-Aware ML Models for Sustainable Networking
- ➢ Explainable AI in Network Management and Diagnostics

SUBMISSION PROCEDURE:

Researchers and practitioners are invited to submit papers for this particular theme session on **[Machine Learning for Intelligent Communication and Networking Systems]** *on or before* **[30th July 2025]**. 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 for Intelligent Communication and Networking System] at the top (above paper title) of the first page of your paper.

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