


ICDMIS 2024

**International Conference on Data Mining and Information Security
(ICDMIS 2024)**

Organized by
Eminent College of Management and Technology (ECMT)

Technically Sponsored by:
Scientific Innovation Research Group (SIRG), Egypt
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Date: 7th – 8th October, 2024 (Hybrid Mode)

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

SPECIAL SESSION

Cutting-Edge AI Trends in Emerging Technologies

SESSION ORGANIZERS:



Jasmininder Kaur Sandhu

School of Computer Science and Engineering,
IILM University, Greater Noida.
Email: dr.jasmininder.sandhu@gmail.com



Dr. Harshal Patel

School of Computer Science and
Engineering, IILM University, Greater
Noida.
Email: harshal.patil@iilm.edu



Dr. Sunil Bhardwaj

School of Computer Science and
Engineering, IILM University, Greater
Noida.
Email: chitthi.to.sunil@gmail.com

SESSION DESCRIPTION:

Artificial Intelligence (AI) is revolutionizing several key sectors through advancements in intelligent sensing techniques, wireless Internet of

Things (IoT), and cyber-physical systems. AI-driven intelligent sensing allows for precise, real-time data collection across diverse environments, significantly benefiting environmental monitoring, healthcare diagnostics, and industrial automation. In wireless IoT, AI enhances the integration and management of numerous devices by optimizing communication protocols, reducing energy consumption, and improving data processing. Cyber-physical systems, which merge computational algorithms with physical processes, gain increased reliability, adaptability, and efficiency through AI. These improvements are particularly impactful for smart cities, where AI optimizes infrastructure management, traffic control, energy distribution, and public safety, fostering more efficient, sustainable, and livable urban spaces.

In wireless communication networks, distributed machine learning and AI-based techniques are pivotal for enhancing network performance and ensuring robust security. Distributed machine learning algorithms enable real-time data analysis and decision-making, essential for managing the dynamic nature of wireless communications. AI plays a crucial role in network security by offering advanced threat detection, anomaly detection, and intrusion prevention, thus protecting sensitive data and infrastructure. In UAV-enabled wireless networks, AI improves route planning, data transmission efficiency, and collision avoidance, increasing the reliability and effectiveness of unmanned aerial vehicles (UAVs).

Additionally, AI-based quality of service (QoS) prediction models and the mathematical computation of QoS parameters are vital for maintaining high performance and user satisfaction in emerging robotic communication systems and other advanced technologies. By accurately predicting and managing QoS, AI ensures these systems meet the stringent requirements of modern applications, driving the evolution of smarter, more interconnected technological ecosystems.

RECOMMENDED TOPICS:

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

- AI-driven Intelligent Sensing Methods
- AI Applications in Wireless IoT Networks
- AI Integration in Cyber-Physical Systems
- Distributed ML Techniques for Wireless Networks
- AI Innovations for Smart City Solutions
- AI-enhanced Network Security
- AI Techniques for Advanced Robotic Communication
- AI Optimization in UAV-based Wireless Networks
- AI-based QoS Prediction in Networks
- Mathematical Modeling of QoS Metrics

PUBLICATION AND SUBMISSION PROCEDURE

The conference aims at carrying out a double-blind review process. The papers submitted by the authors will be assessed based on their technical suitability, scope of work, plagiarism, novelty, clarity, completeness, relevance, significance, and research contribution. The conference proceedings will be published in **Springer LNNS Series (Scopus)**.

Submission Link: <https://cmt3.research.microsoft.com/ICDMIS2024>

Submission Deadline: **30th June, 2024**

NOTE: While submitting the paper in this special session, please specify [Cutting-Edge AI Trends in Emerging Technologies] at the top (above paper title) of the first page of your paper.

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