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

SPECIAL SESSION ON

Advanced Deep Learning Architectures and Intelligent Data-Driven Systems for Real-World Applications

SESSION ORGANIZERS:

Dr. Tawseef Ayoub Shaikh, Senior Assistant Professor, Computer Science & Engineering Department, National Institute of Technology (NIT), Srinagar, J&K, Inida-190006, kzain4043@gmail.com

Dr Jameel Ahamed, Assistant Professor, University of Bisha Saudi Arabia

Jameel.shaad@gmail.com

SESSION DESCRIPTION:

The fields of Data Science and Machine Learning are rapidly evolving, with new paradigms constantly shifting the research landscape. While traditional cloud-centric ML has dominated the last decade, the proliferation of IoT devices, concerns over data privacy, and the need for real-time processing have catalyzed a significant shift towards decentralized intelligence. This special session aims to explore the cutting-edge developments in Data Science, Decision Making, Tiny Machine Leaning, Edge AI, Federated Learning, Split Learning, Deep Learning, GenAI, Large Language Modelling, Decentralized and Privacy-Preserving Machine Learning. As data generation moves to the edge of the network, conventional centralized models face

challenges related to latency, bandwidth, and regulatory compliance. This session will serve as a platform to discuss novel architectures, algorithmic innovations, and real-world applications that address these challenges. The theme of this session is timely and aligns perfectly with the broader scope of ICCDM-2026, as it touches upon the core of how data is processed and how models are trained in the modern, distributed world. This session elevates the conference's academic rigor by focusing on **mathematical robustness, architectural innovation, and scalable deployment frameworks**, thereby strengthening ICCDM-2026's international visibility and research impact.

RECOMMENDED TOPICS:

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

- Machine Intelligence
- Biomedical Data Analysis
- Artificial Intelligence and Natural Language Processing
- Edge AI and Internet of Things (IoT)
- Tiny Machine Leaning for Resource Constrained Environments
- GenAI, Large Language Modelling
- Deep Ensemble Learning for Real Life Applications
- Decision Making algorithms for Health Informatics
- Federated Learning, Decentralized and Privacy-Preserving Machine Learning

SUBMISSION PROCEDURE:

Researchers and practitioners are invited to submit papers for this special theme session on ***"Advanced Deep Learning Architectures and Intelligent Data-Driven Systems for Real-World Applications" on or before 25th February 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.iccdm-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 ***"Advanced Deep Learning Architectures and Intelligent Data-Driven Systems for Real-World Applications"*** at the top (above paper title) of the first page of your paper.

* * * * * *