ICAIN-2025
International Conference on Artificial Intelligence and Networking

Organized by
University of Stirling - RAK Campus, UAE

10th - 11th October 2025

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

SPECIAL SESSION ON

Transforming Big Data Insights: Federated Learning in AI and ML for IoT Solutions

SESSION ORGANIZERS:

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

EDITORIAL BOARD: (Optional)

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

SESSION DESCRIPTION:

The era of rapid modernization provided a significant boost to the integration of Artificial Intelligence, Machine Learning, and the Internet of Things, all of which are increasingly being used to factor in the potential of Big Data. The special session, "Transforming Big Data Insights: Federated Learning in AI and ML for IoT Solutions," will highlight novel approaches towards data processing and analysis in federated learning. Federated learning provides underlying decentralized data cooperation, enabling widespread collaboration while also providing privacy to share data fairly across distinct IoT devices. The discussions will address the challenges and opportunities for this paradigm while showcasing cutting-edge research, case studies, and field implementations that highlight the heating of such technologies.

RECOMMENDED TOPICS:

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

• **Federated Learning Frameworks and Architectures**

• **Privacy-Preserving Techniques in Federated Learning**

• **AI and ML Algorithms for Big Data Analytics**

• **Real-World Applications of Federated Learning in IoT**

• **Challenges and Solutions in Federated Learning**

• **Integrating Edge Computing with Federated Learning**

• **Future Trends in AI, ML, and Federated Learning for IoT**

• **Ethical Considerations and Policy Implications**

SUBMISSION PROCEDURE:

Researchers and practitioners are invited to submit papers for this particular theme session on **[session name]** *on or before* **[30th May 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 [Session Name] at the top (above paper title) of the first page of your paper.

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