

**The 21st International Conference on
Intelligent Information Hiding and Multimedia Signal Processing
(IIHMSP 2025)**

October 15-17, 2025, The Splendor Hotel, Taichung, Taiwan

Special Session on AIoT Convergence: Intelligent Integration of Artificial Intelligence and Internet of Things for Smart Environments

Call for Papers

Organizers: Prof. Yu-Huei Cheng, Prof. Kuo-Chuan Wu, and Prof. Zi Yi Lim

This Special Session is dedicated to creating a vibrant forum for the presentation, exchange, and discussion of the latest advances in the integration of Artificial Intelligence (AI) and the Internet of Things (IoT), collectively known as AIoT. The convergence of these technologies is transforming how modern systems perceive, interact with, and make decisions about their environments. AIoT technologies enable autonomous sensing, real-time analytics, intelligent control, and predictive decision-making across diverse domains, including smart cities, healthcare, agriculture, manufacturing, logistics, and environmental monitoring.

This session seeks to bring together researchers, engineers, and practitioners working at the intersection of AI and IoT to share cutting-edge innovations, frameworks, and case studies that highlight the power of intelligent connectivity. We particularly welcome contributions that explore how AI algorithms such as machine learning, deep learning, and reinforcement learning can be deployed efficiently on resource-constrained IoT devices, or how IoT infrastructure can support scalable and secure AI deployment.

For this Special Session, we invite original research papers that focus on architectural models, edge AI processing, federated learning, energy-efficient system design, context-aware computing, security, and standardization efforts in AIoT. Contributions that demonstrate real-world implementations, experimental results, or cross-disciplinary integration are especially encouraged.

The topics covered in this Special Session include, but are not limited to, the following areas:

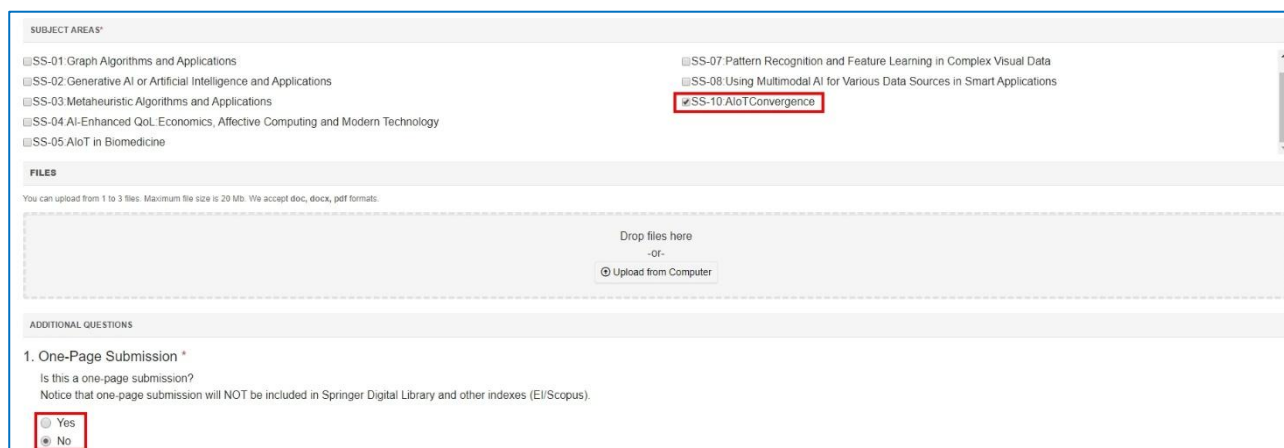
Topics of interest include but are not limited to the following:

1. AI-enhanced IoT system architectures
2. Edge computing and edge AI inference
3. Federated learning and distributed AI over IoT networks
4. Intelligent sensor data fusion and preprocessing
5. Low-power AI processing for embedded devices
6. Context-aware and real-time decision systems
7. AI-based anomaly detection and predictive maintenance
8. Privacy and security in AIoT systems
9. Interoperability and standardization in AIoT frameworks

10. Smart city, healthcare, agriculture, and industrial AIoT applications

Submissions:

Papers should follow the template announced on the IIHMSP 2025 conference website (<https://iihmssp25.csie.cyut.edu.tw>), and be submitted via [Microsoft CMT](#) system and then select SUBJECT AREAS: **SS-10: AIoT Convergence** for submission (please refer to the following captured figure).



The screenshot shows the Microsoft CMT submission interface. Under the 'SUBJECT AREAS' section, several options are listed, with 'SS-10 AIoT Convergence' highlighted with a red box. Below this is a 'FILES' section with a file upload area and a button labeled 'Upload from Computer'. At the bottom, there is an 'ADDITIONAL QUESTIONS' section with a question about one-page submission, where the 'No' option is selected with a red box.

Conference Proceeding Information:

Papers that are presented orally at the conference and meet the publication requirements of the IIHMSP-2025 conference proceedings will be published in Springer's book series titled "Smart Innovation, Systems and Technology". Normally, this series will be indexed by Scopus and EI Compendex.

Important Dates: (If IIHMSP 2025 extends the dates, follow those dates announced on the website)

Paper submission deadline: **May 30, 2025**

Acceptance notification: **July 30, 2025**

Camera-ready copy and registration: **July 15, 2025**

For more information:

Please visit the IIHMSP 2025 official websites (<https://iihmssp25.csie.cyut.edu.tw> or <https://iihmssp25.github.io/>) or contact the organizers of this special session as follows:

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