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 <u>AIoT in Biomedicine</u>

Call for Papers

Organizers: Prof. Xin Zhu and Prof. Shing-Hong Liu

With the progress in flexible sensing and AI technologies, it is believed that the AIoT, which corresponds to the integration of artificial intelligence (AI) and the Internet of Things (IoT) will play a more and more important role in Biomedicine, from disease monitoring to therapy. Although the design of the system may vary with specific application target, the systematic approach can be generally divided into 3 integrated parts: (1) development of applicable sensing technologies, (2) extraction of targeted biomarker and information on relevant factors using sensing technologies developed, and (3) modeling of the relation between targeted biomarker and the relevant factors.

This special session serves as an ideal place for presenting novel AIoT systems and/or outcomes of AIoT systems in treating non-communicable diseases. This Special Session is dedicated to creating a forum for the presentation, exchange, and discussion of the latest advances in the implementation of AI and IoT technology in biomedicine. The topics covered in this Special Session include, but are not limited to, the following areas:

1. Biomedical Image Processing based on AI
2. Biomedical Signal Processing based on AI
3. Generative AI in Biomedicine
4. IoT in Pervasive and Mobile Healthcare
5. AIoT in Pervasive and Mobile Healthcare
6. Edge Computing in Biomedicine
7. Machine Learning in Medical Informatics
8. Decentralized Clinical Trial

Submissions:

Papers should follow the template announced on the IIHMSP 2025 conference website (https://iihmsp25.github.io/), and be submitted via **Microsoft CMT** system and then select SUBJECT AREAS: **SS-05**:**AIoT in Biomedicine** for submission (please refer to the following captured figure).

Create New Submission

Dear Authors, Before you submit your paper, please go to the conference website (https://iihmsp25.github.io) to confirm whether the paper format meets the conference requirements. In addition, if you want to submit to a Special Session, please select the suitable Session number and name (SUBJECT AREAS). Thanks for your submission.

TITLE AND ABSTRACT

* Title: AIoT in Biomedicine

* Abstract: With the progress in flexible sensing and AI technologies, it is believed that the AIoT, which corresponds to the integration of artificial intelligence (AI) and the Internet of Things (IoT) will play a more and more important role in Biomedicine, from disease monitoring to therapy. Although the design of the system may vary with specific application target, the systematic approach can be generally divided into 3 integrated parts: (1) development of applicable sensing technologies, (2) extraction of targeted biomarker and information on relevant factors using sensing technologies developed, and (3) modeling of the relation

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AUTHORS *
You may add your coauthors.

Primary Contact	Email	First Name	Last Name	Organization	Country/Region
◉	rwhung@cyut.edu.tw	Ruo-Wei	Hung	Chaoyang University of Technology	✕ ↑ ↓

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SUBJECT AREAS *

☐ Regular Paper
☐ SS-01:Graph Algorithms and Applications
☐ SS-02:Generative AI or Artificial Intelligence and Applications
☐ SS-03:Metaheuristic Algorithms and Applications

☐ SS-04:AI-Enhanced QoL:Economics, Affective Computing and Modern Technology
☑ SS-05:AIoT in Biomedicine

Conference Proceeding Information:

Papers that are presented orally at the conference and meet the publication requirements of 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://iihmsp25.github.io/) or contact the organizers of this special session as follows:

Prof. Xin Zhu
Department of AI Technology Development, M&D Data Science Center, Institute of Integrated Research, Institute of Science Tokyo, Tokyo, Japan
E-mail: zhu.xin@tmd.ac.jp

Prof. Shing-Hong Liu
Department of Computer Science and Information Engineering,
Chaoyang University of Technology, Wufeng, Taichung 413310, Taiwan
E-mail: shliu@cyut.edu.tw