



## The 5<sup>th</sup> IEEE International Conference on Human-Machine Systems

26-28 May 2025, Abu Dhabi, UAE

<https://iee-ichms.org/2025/>

Marriott Downtown Abu Dhabi

The theme of the 5<sup>th</sup> IEEE ICHMS is “AI and Large Language Models: Transforming Human-Machine Interactions”. The organization of ICHMS will include Regular Sessions, Special Sessions, Poster Sessions, and Sessions focused on PhD student research. Accepted papers will be submitted for inclusion into IEEE Xplore. The list of topics are:

- Advancements in LLMs
- AI Integration in Human-Machine Systems
- AI in Robotics and Automation
- Future Trends and Emerging Technologies in Human- Machine Interactions
- Augmented Cognition
- Authority/Control Transfer
- Brain-Inspired Autonomous Systems
- Brain-Machine Interfaces
- Decision-Support and Recommender Systems
- Ethical Aspects of Human-AI Symbiotic Systems
- Human- Computer Interaction
- Human-Autonomy Cooperation and Teaming
- Human Performance Modeling
- Human- Machine/Robot Interaction
- Intelligent Adaptive Systems
- Resilience Engineering in Human-AI Symbiotic Systems
- Team Performance and Training Systems
- Trust Modeling, Measurement, and Management
- Virtual and Mixed Reality Systems

- Wearable Sensors
- Web-based Interactive Systems
- Autonomous Technologies and Cyber- physical Systems

### **Submission Categories:**

Submission to a Regular, Special, or a PhD Session should focus on topics including, but not limited to:

- **Regular papers** (6 pages): should provide complete and high-quality contributions to the field.
- **Short Papers** (4 pages): are expected to cover recent research outcomes that are not yet mature enough for a regular paper but still provide novel insights.
- **Posters** (1 page): should ideally show work in progress or applications/demos that can be best presented through an interactive format at the meeting.

### **Submission Instructions:**

All paper submissions MUST be in PDF format. Complete manuscripts must be electronically submitted via the ICHMS 2025 EDAS site <https://edas.info/N32982>. Submitted manuscripts must appear in IEEE two-column format, including figures, tables, and references. Please use the IEEE templates available at Manuscript Templates for IEEE Conference Proceedings to prepare your paper (<https://www.ieee.org/conferences/publishing/templates.html>).

Authors of accepted papers will need to register online for the conference before the early registration deadline (see below) in order for papers to be published in the conference proceedings. Papers MUST be presented during the conference, otherwise they will be removed from the IEEE Xplore Online Proceedings.

### **Deadlines for all Contributions:**

- Paper submission for all session types: November 15, 2024
- Paper acceptance notification: February 15, 2025
- Final camera-ready paper submission: April 15, 2025
- Deadline for early-bird registration: March 15, 2025

### **Special Issue Opportunity**

Selected papers accepted at ICHMS 2025 will have the privileged opportunity to submit an extended version to a dedicated Special Issue of the esteemed *IEEE Transactions on Human-Machine Systems (THMS)*.

## **Organizing Committee**

### **General Chair**

- Moayad Aloqaily, MBZUAI (UAE)

### **General Co-Chair**

- Ji-Eun Kim, University of Washington (USA)

### **Program Chairs**

- Raffaele Gravina, University of Calabria (Italy)
- Marina Gavrilova, University of Calgary (Canada)
- Manar Jammal, York University (Canada)