



# CALL FOR Special Sessions

16TH IFAC SYMPOSIUM ON ANALYSIS, DESIGN AND EVALUATION OF HUMAN-MACHINE SYSTEMS

## IFAC HMS 2025 Beijing, China November 18th to 21th



### Special Sessions Aim

Special Sessions aim to provide a platform for in-depth discussions on cutting-edge research and interdisciplinary collaboration in human-machine systems. Researchers can showcase their latest findings, foster academia-industry interactions, and drive technological innovation. These sessions enrich the conference program and offer opportunities to engage with leading experts, addressing current challenges and exploring future directions.

### Highlights of IFAC HMS 2025

- **Keynote Speeches:** Delivered by renowned experts in the field.
- **Industry Participation:** Featuring leading companies such as Baidu, Huawei, and Xiaomi.
- **Technical Workshops:** Focused sessions on topics like brain-computer interfaces and healthcare robotics.
- **IFAC Young Author Award:** Encouraging young researchers to submit high-quality papers.

### Potential Scopes

#### S1. Human-AI Collaboration and Teaming

- Trust and transparency in human-AI decision-making;
- Adaptive interfaces for human-AI interaction;
- Cognitive load and mental models in AI-assisted tasks;

#### S2. Human-Robot Partnership and Teaming

- Collaborative robotics (Cobots) in industrial and service settings;
- Emotional intelligence in human-robot interaction;
- Shared autonomy and control in human-robot teams;

#### S3. Decision Making and Cognitive Processes in AI Systems

- Explainable AI (XAI) for human-centric decision support;
- Cognitive modeling of human-AI collaborative workflows;
- Bias detection and mitigation in AI-driven decision systems;

#### S4. AI-Assisted Human Performance Enhancement

- AI for Cognitive Augmentation and Decision Support;
- Human-Machine Synergy in Skill Development and Training;
- Adaptive Systems for Real-Time Performance Optimization;

#### S5. Multi-Agent Systems for Human-AI Collaboration

- Collaborative Multi-Agent Systems for Complex Task Solutions;
- Coordination and Communication Protocols for Human-AI Teams;
- Distributed Problem Solving in Human-AI Teams;

#### S6. Design and Evaluation Methodologies for AI and Robotics

- User-centered design principles for AI and robotic systems;
- Usability testing and evaluation of human-AI interfaces;
- Metrics for assessing human-robot team effectiveness;



### Submission Guidelines

**Proposals for Special Sessions should include:**

1. Title and brief description (max. 500 words).
2. Organizer details: Name, affiliation, and contact information.
3. Expected number of papers: Typically 4-6 papers per session.
4. List of potential contributors (if available).

**Submission Deadline: June 10, 2025**

**Submission Method:** Via the conference website or email to [yinzhong@usst.edu.cn](mailto:yinzhong@usst.edu.cn)



### Accommodation Information

**Conference Venue: Friendship Hotel, Beijing** 

**Recommended Hotels** (within 2 km of the venue):

- Friendship Hotel: ~€130/night
- Wanfang Hotel: ~€70/night
- Lavande Hotel : ~€80/night
- Mino Hotel : ~€100/night
- Crowne Plaza Beijing Zhongguancun: ~€150/night

Price Range: €70-150 per night, catering to different budgets.



### Contact Information

**Session Secretariat:**

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**Conference Website:**

<https://conferences.ifac-control.org/hms2025>