

# Call For Papers

**Special Session:** Intelligent Decision-making of Unmanned System

**Conference:** The 2023 International Conference on Cyber-physical Social Intelligence (ICCSI)

**Date:** October 20-23, 2023

**Meeting mode:** In-person

**Location:** Xi'an, China

**Web site:** <https://agist.org/iccsi2023>

Unmanned systems have received extensive attention in the research community, covering various vehicle systems from aircraft to ground robots to underwater systems. Recent research trends attempt to study the autonomy of unmanned systems, including the development of automatic machine systems, and improve the level of intelligence by combining machine learning and artificial intelligence. As the core technology of autonomous intelligence, planning and decision-making aims to carry out autonomous decision-making, path planning and other control based on the dynamic environment information perceived by the unmanned system, so that the unmanned system can achieve specific tasks. The rapid development of artificial intelligence technology has greatly improved the autonomy of planning and decision-making of unmanned systems. Algorithms such as reinforcement learning and deep reinforcement learning can better solve the problem of motion planning of unmanned systems. A series of network structures such as CANN, RNN, LSTM, SNN have also been proposed for decision-making tasks, enabling unmanned systems to adapt to highly complex, dynamic and strong confrontation environments to carry out tasks.

*Interested topics include (but not limited to):*

- Intelligent perception and decision-making of unmanned system
- Autonomous planning and intelligent control of unmanned systems
- Cooperative control of heterogeneous unmanned systems
- Interactive control of manned/unmanned system
- Intelligent control of unmanned cluster system
- Multi-agent reinforcement learning and its applications

## **Important Dates:**

March 31, 2023, Letter of intent for paper contribution

May 15, 2023, Full paper submission

July 1, 2023, Acceptance/Rejection notification

August 31, 2023, Final camera-ready papers due

## **Special Session Co-chairs:**

Prof. Lanyong Zhang (Harbin Engineering University, China), email [zhanglanyong@hrbeu.edu.cn](mailto:zhanglanyong@hrbeu.edu.cn)

*All inquiries about the session, including the letter of intent, should be sent to any of the co-chairs above*