The 17th International Conference on Intelligent Robotics and Applications (ICIRA 2024)

AI & Robotics for Smart Society

July 31–August 2, 2024 in Xi'an, China

ICIRA 2024 Special Session Proposal

Title of the Proposal: Robotics in Cooperative Manipulation, Multi-Sensor Fusion, and Multi-Robot Systems

Technical Outline of the Session and Topics:

Outline of the Session

Robots, as essential carriers of artificial intelligence, constitute autonomous engineering tasks in domains such as aviation, aerospace, and marine. Multi-robot systems play significant roles in applications such as cooperative manipulation, aerial and in-orbit assembly, underwater operations, and medical assistance. The field of robotics primarily encompasses perception, planning, control, and decision-making. The core technology of robotic intelligence lies in the collaborative manipulation of multi-robot systems and the fusion of multiple sensors in uncertain environments. The aim of this session is to bring together original articles that present the latest technologies in the field of cooperative manipulation, multi-sensor fusion, and multi-robot systems.

Topics of the Session

- *Multi-Robot Systems*
- *Multi-Robot Collaborative Assembly*
- *Multi-Sensor Fusion for Robust Autonomous Indoor Flight*
- *Collaborative Manipulation and Decision-Making of Multiple Unmanned Aerial Vehicles*
- *Application of Reinforcement Learning in Robotics*
- *Motion Planning and Navigation for Quadruped Robots*
- *Underwater Multi-Robot Perception, Control and Decision-Making*
- *Perception of Unstructured Environments by Multi-Robot Systems*

Contact details of the Session Organizers

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