



# *The 16th International Conference on Intelligent Robotics and Applications (ICIRA 2023)*

*July 5-7, 2023 in Hangzhou, China*

## **ICIRA 2023 Special Session Proposal**

**Title of the Proposal: Advanced motion control technologies for mobile robots**

### **Technical Outline of the Session and Topics:**

Outline of the Session:

With the need for environmental exploration, transportation, service industry, and military application, developing accurate, safe, and high-maneuverable motion control technologies becomes a crucial problem for mobile robots. This session will exhibit and discuss the latest research in advanced motion control and motion planning for wheeled robots, legged robots, flying robots, underwater robots, etc, in order to improve the reliability, adaptability, and maneuverability of such robots. This session aims to bring up the researchers and industry experts to share new ideas and new methods for enhancing motion control technologies and exploring the maneuverability potential of mobile robots.

Topics of the Session:

- *Motion control in unstructured environment*
- *Fast trajectory planning methods for mobile robots*
- *Advanced model predictive control theory and applications*
- *Learning-based motion control technologies*
- *Large angle maneuver for mobile robots*
- *Control and planning for cross domain robots*
- *Other related issues*

### **Contact details of the Session Organizers**

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