

ICIEA 2022 Special Session

Title of session	Intelligent Control and Motion Planning for Robotic Systems
Organizers	<p>Dr Wenyu Liang, Institute for Infocomm Research, A*STAR, Singapore Liang_Wenyu@i2r.a-star.edu.sg</p> <p>Prof Qinyuan Ren, Zhejiang University, China renqinyuan@zju.edu.cn</p>
Summary of session	<p>In recent years, robots and intelligent systems are increasingly needed and used in practical applications such as manufacturing, agriculture, construction, healthcare, space and marine exploration, intervention in hazardous environments, etc. Significantly, motion plays an important role in conducting the tasks by the robotic systems. Therefore, it is critical to design and implement efficient hardware platforms and intelligent algorithms of control and motion planning for various robotic systems (e.g., robot manipulators, mobile robots, collaborative robots, biomimetic and bioinspired robots, soft robots, medical robots, etc.).</p> <p>The purpose of this special session is to support the exchange of new ideas and experiences in this active field of robotic research on robot control and motion planning.</p> <p>Topics of interest include, but are not limited to:</p> <ul style="list-style-type: none">• Robotic control systems• Motion control and planning• Intelligent sensors and actuators• Collaborative robots• Mobile Robots• Multi-agent systems• Biomimetic and bioinspired robots• Soft robots• Medical robots (e.g., robot-assist surgery and rehabilitation robots)