

ICIRA 2023 Special Session Proposal

Title of the Proposal: Human-like Locomotion and Manipulation

Technical Outline of the Session and Topics:

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A growing interest in humanoid robotics has been observed in the last decades. Not surprisingly, the humanoid robot would have incredible advantages in daily live collaboration for human beings. To achieve this goal, human-like locomotion, and manipulation abilities are the pivotal problems that require robust solutions. Although impressive advances have been made, there is still a long way to go. This session aims to highlight recent progress in anthropomorphic design, advanced control and planning algorithms, skill learning methods, etc. for the humanoid robot.

Topics of the Session:

- Anthropomorphic design of humanoid robot
- Locomotion control of humanoid robot
- Manipulation control of humanoid robot
- Human-like skill learning
- Interaction for collaborative locomotion and manipulation
- Human-like environmental perception and navigation

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