

# ICIRA 2023 Special Session Proposal

# Title of the Proposal:

Perception, interaction, and control of wearable robots

## Technical Outline of the Session and Topics:

Outline of the Session:

This session will showcase the latest research and advancements in wearable robots, with a focus on perception, interaction, and control technologies. Wearable robots have the potential to revolutionize various industries, such as healthcare, rehabilitation, and industry, by augmenting human capabilities and enabling new applications. This session will highlight the interdisciplinary nature of wearable robotics and explore topics such as sensor technologies, human-robot interaction, control algorithms, real-world applications, and future directions. The session aims to bring together researchers, practitioners, and industry experts to share their findings and insights, and discuss the significance and potential of wearable robots in enhancing human-robot collaboration.

### Topics of the Session:

- Human motion recognition and prediction based on wearable sensors
- Design and control of lightweight wearable drives
- Force control of wearable robots
- Robotic prosthetics
- Exoskeleton robot
- Supernumerary robotic limb

### Contact details of the Session Organizers

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- Organizer 3: Yuquan Leng, Southern University of Science and Technology, lengy@sustech.edu.cn.