

ARCAI Special Session on “Perception and control of lower limb rehabilitation exoskeleton robots”

Organized by

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➤ **Call for Papers:**

As a type of wearable robot that helps disabled humans to improve or renew their moving abilities, lower limb rehabilitation exoskeleton robot plays an important role in promoting human health and alleviating the problem of aging in society. Nowadays, the research of lower limb rehabilitation exoskeleton robots shows the characteristics of multi-disciplines. The hot research topics include mechanical structure design of lower limb rehabilitation exoskeleton robots, human motion intention recognition, motion control of lower limb rehabilitation exoskeleton robots, human-machine interaction and cooperation, etc. This special session aims to provide academic communication channels for researchers in the field of lower limb rehabilitation exoskeleton robots. The topics of this session are listed but not restricted to the following ones:

- Structure design and optimization of lower limb rehabilitation exoskeleton robots
- Kinematic and dynamic analysis of lower limb rehabilitation exoskeleton robots
- Trajectory tracking control of lower limb rehabilitation exoskeleton robots
- Impedance or admittance control of lower limb rehabilitation exoskeleton robots
- Multi-sensor information fusion perception of lower limb rehabilitation exoskeleton robots
- Electromyographic signal processing for wearers of lower limb rehabilitation exoskeleton robots
- Motion intention recognition for wearers of lower limb rehabilitation exoskeleton robots