Journal of Healthcare Engineering

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Special Issue on
Rehabilitation Robotics and Systems

CALL FOR PAPERS

Development of novel engineering solutions that incorporate robotic systems offers huge potential, as both assistive devices and therapeutic aids, for patients with reduced motor and/or cognitive abilities. Indeed, such technologies are capable of outperforming existing therapeutic systems for improving patients' achievable functional recovery. As a result, advanced engineering solutions for rehabilitation robotics have received a considerable amount of interest in recent years, from both the academic community and the industrial sector. Emphasis is typically focused on the improvement of sensor systems, control engineering, computer vision, robotic mechanics, human-machine interfaces, modelling and simulation, in-built intelligence, and informatics, to meet the broad range of challenges posed during patient rehabilitation.

This special issue aims to exhibit the latest research achievements, findings, and ideas in the field of rehabilitation robotics and systems. Researchers are invited to contribute with their original research articles, as well as review articles, that summarise the most recent developments in the field of rehabilitation robotics and systems.

Potential topics include but are not limited to the following:

- Plasticity and motor-learning robotic devices
- Assistive and therapeutic robotic aids
- Upper and lower limb rehabilitation robotics
- Human-machine and brain-machine interfaces
- Mobile, wearable, and prosthetic robotic devices
- Sensors, intelligent sensors, and sensor networks
- Artificial Intelligence based rehabilitation systems
- Complex, nonlinear, and intelligent systems
- Vision, awareness, perception, and signal processing
- Sensor networks for precise motion control and visual servoing
- Adaptive control, robust control, and active disturbance rejection control
- Modelling and simulation for robotic rehabilitation systems
- Networked rehabilitation robotics
- Intelligent automation of rehabilitation robotics
- Informational monitoring, control, and data fusion for rehabilitation systems

Authors can submit their manuscripts through the Manuscript Tracking System at https://mts.hindawi.com/submit/journals/jhe/rras/.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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