Call for Papers: Special Issue on Wearable Robotics for Motion Assistance and Rehabilitation

Scope

This special issue aims to gather researchers from different backgrounds to highlight the state of the art, the current and future trends of the field of Wearable Robotics for Motion Assistance and Rehabilitation. The accepted papers will provide discussions about the challenges and limiting factors for developing sustainable wearable robots for assistance and rehabilitation of human movements. The special issue aims at publishing original, significant and visionary papers describing the growing challenges of using novel human-robot multimodal interaction paradigms. Research related to novel kinematics and actuation solutions for wearable robots will be considered, and also issues related to cognitive human-robot interactions. The special issue is also about understanding the recent trends to promote: complete wearability, portability and reliability of the device, energy harvesting, as well as user’s safety. Submissions of scientific results from experts in academia and industry worldwide are strongly encouraged.

Topics to be covered include (not limited to)

- biosignal processing and applications for wearable robotics
- neurological disorders and rehabilitation using wearable robots
- neuro-interface orthotic and prosthetic devices
- mechatronic artefacts and control of human movements
- cognitive/physical interaction paradigms for assistive robotics
- novel kinematics and actuation solutions

Paper submission and selection:

Interested authors are encouraged to submit one IEEE page A4 abstract to the guest editors by 31 October 2014. After validation by guest editors, selected contributors will be asked to submit full version papers by 31 December 2014. All submitted full papers will be rigorously reviewed and the selection of papers will be based on their originality, timeliness, significance and relevance to the scope of the special issue. Submitted papers should not be under consideration for publication anywhere else.