Special Issue

Frontiers Research in Biomechanics and Rehabilitation Engineering

Message from the Guest Editors

Biomechanics and rehabilitation engineering are two interwined fields aimed at improving the quality of life of disabled people and the elderly. During the last decade, the rehabilitation routines have moved from the clinical environment to the subject's own home, thanks to the use of compact actuators and energy storage systems. The design of novel rehabilitation devices can benefit from the use of recent but also widespread manufacturing techniques, such as 3D printing, the use of biologically inspired actuators such as Bowden cables, pneumatic muscles or textiles and the use of 'ad hoc' simulation models to characterize the rehabilitation systems and their influence in the rehabilitation process. Topics of interest include, but are not limited to:

- Novel designs of rehabilitation devices for the upper and lower limbs;
- Biologically inspired actuators and control schemes;
- Use of rapid manufacturing techniques in the design of rehabilitation devices
- Assessment of the aforementioned systems for the population of interest;
- Model simulation and validation;
- Characterization of the rehabilitation system constructive materials.

Guest Editors

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Prof. Dr. David Rodríguez Salgado

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Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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