

Special Issue on Neural Engineering for Rehabilitation

CALL FOR PAPERS

Neurorehabilitation has been identified as a grand challenge for the coming decades, mainly due to the fast growing population with neurological disorders (e.g., stroke, Alzheimer's, and Parkinson's, etc.). Efficient, quantitative, and automated rehabilitation services are in urgent need to release the increasing demands for long-term medical treatments and healthcare and to compensate the lack of manpower in rehabilitation professionals. Neural engineering is an active research area, where engineering technologies, such as robots, imaging, artificial intelligence, telecommunication, and sensors, have contributed to diagnosis, treatment, and long-term evaluation in rehabilitation processes. Advances in neural engineering techniques, from the fundamental research in laboratories to clinical trials, will definitely promote the automated and personalized rehabilitation in the future.

This special issue aims at compiling the latest researches and advances in neural engineering with an ultimate application in rehabilitation. We invite authors to submit original research and review articles that explore the related mechanisms and/or technologies.

Potential topics include but are not limited to the following:

- ▶ Brain computer interfaces
- ▶ Neural sensors
- ▶ Neural prosthetics and robotics for rehabilitation
- ▶ Neumuscular electrical stimulation
- ▶ Neural signal processing in rehabilitation
- ▶ Quantification of rehabilitation effectiveness
- ▶ Neural imaging for rehabilitation
- ▶ Neural tissue engineering

Authors can submit their manuscripts through the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/bn/nere/>.

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