

Special Issue

Computational Control in Neurorobotics

Message from the Guest Editors

One of the aims of neurorobotics is to foster a synergistic connection between humans and robots. This connection can be achieved by establishing bidirectional communication between the human nervous system and robots. In this scenario, computational models are efficient tools to stimulate the central or peripheral nervous systems. They can be adopted to study the effects of different types of stimulation techniques and applied to both the central and peripheral nervous systems. The aim of this Special Issue is to collate the most recent studies on the different stimulation strategies applied to the central and peripheral nervous systems in the context of computational models to improve the control of robotic devices. Potential topics include (but are not limited to) the following:

- Stimulation strategies for healthcare robotics;
- Computational modeling of the peripheral nervous system;
- Peripheral nerve stimulation of the upper extremities, lower extremities;
- Deep Brain Stimulation (DBS);
- Nerve stimulation for therapy;
- Spinal Cord Stimulation (SCS);
- Closed-loop human-machine interfaces for rehabilitation robotics and assistive robotics.

Guest Editors

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About the Journal

Message from the Editor-in-Chief

It is my great pleasure to welcome you to our open access journal, *Robotics*, which is dedicated to both the foundations of artificial intelligence, bio-mechanics and mechatronics, and the real-world applications of robotic perception, cognition and actions. The 21st century is the robotics century and intelligent robots will change our lifestyle forever. Let us work together toward the realization of intelligent robots step by step. It is great fun to create intelligent robots and imagine their practical applications. *Robotics* is now ready to serve you in the long journey towards such a goal.

Editor-in-Chief

Prof. Dr. Marco Ceccarelli

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