Special Issue

Design and Development of Biomimetic Hand: Integrating Biological Principles for Enhanced Dexterity and Natural Functionality

Message from the Guest Editor

Humanoid robots and prosthetic hands aim to mimic a variety of human-like behaviors, such as moving, grasping, lifting, and more. In recent decades, researchers have attempted to build humanoid robots and prosthetic hands capable of replacing human hands. However, despite prosthetics being a means of improving disability, activity difficulties, and health-related quality of life, many arm amputees rely on outdated devices. We invite investigators to contribute original research articles and review articles addressing robotic/prosthetic hands that facilitate advances in rehabilitation/humanoids, such as brain–machine interfaces, neuroprosthetics, rehabilitation robots, humanoids, and human support robots. Relevant Topics

- new design as close as possible to the natural hand
- control methods for motor or sensory function
- neuroprosthetics and rehabilitation systems
- engineering technologies for humanoids
- personalized rehabilitation interfaces for adapted physical activity
- new sensors and actuator techniques

Guest Editor

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Deadline for manuscript submissions

closed (29 December 2024)

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About the Journal

Message from the Editor-in-Chief

The field of rehabilitation medicine is constantly expanding, all accompanied by the presence of new biomaterials and new concepts of biomechanics. This journal aims to promote the knowledge of new biomedical engineering devices in the prosthetic field. The knowledge and study of new prosthetic devices to rehabilitate parts of the human body certainly promotes research and clinic, improving the expectations of rehabilitated patients and certainly the quality of their life. The scientific society publishing high quality works will contribute to this.

Editor-in-Chief

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