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a means of improving disability, activity difficulties, and health-related quality of life, many arm amputees rely on outdated devices.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

Prof. Dr. Duk Shin
Department of Engineering, Tokyo Polytechnic University, Atsugi, Japan

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closed (29 December 2024)

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Prosthesis
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
prosthesis@mdpi.com

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Editor-in-Chief

Prof. Dr. Marco Cicciu
Department of Biomedical and Surgical and Biomedical Sciences, Catania University, 95123 Catania, Italy

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