



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

Guest Editor:

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a means of improving disability, activity difficulties, and health-related quality of life, many arm amputees rely on outdated devices.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

