



Applications of Soft Robotics and Exoskeletons in the Medical Field

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Deadline for manuscript
submissions:

closed (1 March 2024)

Message from the Guest Editor

Dear Colleagues,

Soft robotics and exoskeletons represent an exciting trend in the field of robotics that offers to provide novel and high-impact applications. Their inherent flexibility improves comfort, usability, and portability while not constraining the user's natural degrees of freedom. Innovative applications for soft robots and exoskeletons include robotic muscles, climbing, biomimetic, edible, wearable, and prosthetic robots. Robots in the medical field are transforming how surgeries are performed, streamlining supply delivery and disinfection, and enabling providers to focus on engaging with and caring for patients. However, due to their nonlinear behaviors, there are significant challenges of design, fabrication, modeling, and control for soft robots and exoskeletons.

This Special Issue focuses on the Soft Robotics and Exoskeletons, applied to the medical fields, such as:

- medical devices
- soft actuators and sensors
- Human-robot intelligent collaboration and shared control
- wearable technologies
- Tactile and haptic feedback in robotics
- physical human-robot interactions based on soft technologies



mdpi.com/si/159479

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Special Issue