Special Issue

Actuators on Soft Exoskeletons

Message from the Guest Editors

Soft exoskeletons, also called exosuits, are gaining great interest due to their potential benefits with respect to classical exoskeletons based on rigid structures. Their main advantages are related to their weight, comfort, and usability, thanks to their soft nature and compliant interaction with the wearer. This Special Issue aims to cover current developments in actuation on soft exoskeletons, including any aspects related to actuation technologies, design, and control for soft exoskeletons, including testing and validation. Contributions from different application areas, such as medical, rehabilitation, and industry, are welcome. **Keywords:**

- Exoskeleton/exosuit design
- Exoskeleton/exosuit control
- Exoskeleton/exosuit testing and validation
- Actuation technologies
- Actuation design
- Actuation control
- Rehabilitation exoskeletons
- Industrial exoskeletons

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About the Journal

Message from the Editorial Board

We are just entering the Next Wave of Technology (NWT) where actuators will play the same role as the computer chip did for computers/social media approximately four decades ago. Just in the U.S., production of $1 trillion year of electromechanical systems (vehicles, orthotics, manufacturing cells, freight trains, aircraft, etc.) will be impacted by the NWT, all driven by actuators. Five key trends can be found for the future perspectives: “Performance to Reliability”, “Hard to Soft”, “Macro to Nano”, “Homo to Hetero” and “Single to Multi functional”. We invite papers that primarily impact these economic sectors; those illustrating basic scientific principles are also welcome.

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