

Special Issue

Mechanical Robotic Systems: Modeling, Simulation, Design, and Control

Message from the Guest Editor

This Special Issue is intended to bring together a collection of scholarly research articles that deal with mechanical systems with emphasis on innovative actuation, sensing, design, and control approaches in the field of robotics. We invite papers that deal with topics such as locomotion, object manipulation, miniaturization, navigation in unstructured environments, self-configuration, and deep learning that arise in developing the makeup of modern robotic mechanisms. Articles with sound dynamics and control theoretical foundation as well as experimental components are especially welcome. Submissions are encouraged but are not limited to the following topical areas:

- robotics
- locomotion
- object manipulation
- miniaturization
- actuation
- sensing

Guest Editor

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Deadline for manuscript submissions

closed (31 July 2022)



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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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