



Design Methodology for Soft Mechanisms, Machines, and Robots

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Message from the Guest Editor

Soft robots or machines have gained significant attention in the field of robotics. The attention is driven by new applications in biomedicine and healthcare. Numerous prototypes of a soft robot are constructed based on learning biological systems, particularly creatures. However, the definition of a soft robot is controversial; specifically, the soft actuator is often considered as the same as the direct actuator made of polymers, where first the definitions of a soft power generator, soft controller, soft actuator, soft mechanism, and soft sensor are given, and subsequently the definitions of a full soft robot and a partially soft robot are given. Robots are considered as a specialized machine in that machines are more emphasized on systems that include mechanisms and actuators. In this Special Issue, the research contributions on design theory and methodology for soft mechanisms, machines, and robots are solicited. The scope of contributions is characterized by the following keywords.

- soft power generator
- soft actuator
- soft control
- soft mechanism
- compliant mechanism
- soft body
- soft sensor
- hydrogel machines
- hydrogel robots
- soft robots in healthcare systems





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Message from the Editor-in-Chief

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