Special Issue

Design Methodology for Soft Mechanisms, Machines, and Robots

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

Guest Editor

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Message from the Editor-in-Chief

Machines is an international, peer reviewed journal on machinery and engineering. It publishes research articles, reviews and communications.
Our aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. There is no restriction on the length of the papers. Full experimental and/or methodical details must be provided.
There are, in addition, unique features of this journal: Manuscripts regarding research proposals and research ideas will be particularly welcomed; Electronic files or software regarding the full details of the calculation and experimental procedure - if unable to be published in a normal way can be deposited as supplementary material.

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