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Application of Compliant Mechanisms in Robotics

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Message from the Guest Editors

Dear Colleagues,

Compliant mechanisms are devices that achieve some or all the motion through the deflections of their flexible members. On the one hand, because the motion is produced by deflections, clearance and friction are eliminated and very high-precision motion can be obtained. On the other hand, the redundant degree-of-freedom of deflections offers devices the capability of passive adaptation to a variety of objects of different shapes and safe interaction with unstructured environment. These features of compliant mechanisms offer new opportunities and also new challenges for robotic designs.

In this Special Issue of *Applied Sciences*, we aim to discuss the state of the art of compliant mechanisms and their applications in robotics, with the focus being on compliant mechanism designs that can be utilized in actuators, transmissions, or end-effectors to improve the performances of robotic systems. Devising sensors or other key elements in robots incorporating compliant designs are also of concern in this Special Issue. The Special Issue will publish original research articles, review articles, and short communications.

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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