

Special Issue

Mechanical Design and Modeling for Medical Devices and Simulators

Message from the Guest Editors

Technological innovation in design, 3D modeling and manufacturing is transforming the medical field. Advanced computational tools, artificial intelligence, reverse engineering techniques applied to diagnostic images, hybrid modeling approaches and additive manufacturing make it possible to work with complex anatomical structures, as well as the development of patient-specific solutions. These technologies also support the creation of surgical simulators, providing accurate, safe and effective anatomical and biomechanical representations for training and preoperative planning. This Special Issue invites original research and review articles on the design, modeling, validation, optimization and manufacturing of medical devices and simulators. We will also consider submissions detailing advancements in materials science for biomedical devices and high-fidelity surgical simulators, with a focus on achieving accurate mechanical, optical or imaging readout properties across various diagnostic and intraoperative data acquisition systems. The aim is to highlight the technological advances driving the next generation of medical solutions.

Guest Editors

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About the Journal

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.

Editor-in-Chief

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