Special Issue

Smart Materials and Multifunctional Mechanical Metamaterials

Message from the Guest Editors

Smart materials, including shape-memory polymers, shape-memory alloys, liquid crystal elastomers, and stimulus-responsive hydrogels, have attracted significant attention due to their ability to adaptively respond to environmental stimuli. These advancements significantly affect various applications, including aerospace, automotive, biomedical, and robotics. In this Special Issue, we invite submissions exploring cutting-edge research and recent advances in smart materials and multifunctional mechanical metamaterials. Topics of interest include, but are not limited to: (1) Design, fabrication, and characterization of stimuli-responsive materials; (2) Bio-inspired composites with multifunctional properties; (3) Novel mechanical metamaterials exhibiting unique mechanical behaviors; (4) Energy absorption mechanisms in smart structures; (5) Emerging applications of smart materials and metamaterials in engineering. Both theoretical and experimental studies, as well as comprehensive reviews and survey papers, are welcome.

Guest Editors

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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.

Editor-in-Chief

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