

Special Issue on **Smart Materials and Structures for Shock and Vibration Energy Absorption: Design, Analysis, and Evaluation**

CALL FOR PAPERS

Smart materials and structures (SMS) with controllable stiffness and energy absorption capabilities have a wide range of applications. The technology of SMS, by its nature, is a highly interdisciplinary field that is related to structures, material science, electronics, computer science, and chemistry. The goal of research in this area is to better understand their intelligent mechanisms and to develop new design and analysis (experimental, theoretical, or computational) methodologies to further enhance their performance and broaden their applications, particularly in shock and vibration energy absorption.

This special issue invites investigators and researchers to contribute their original research articles as well as review articles that will stimulate and support the continuing efforts in studying the energy absorbing smart materials and structures with experimental, theoretical, and numerical approaches.

Potential topics include but are not limited to the following:

- ▶ Development and characterization of SMS used as energy absorbers, load bearing structures, or dampers
- ▶ Mechanics and behaviors of active materials related to energy absorption
- ▶ Modeling, simulation, and control of adaptive energy absorbing system
- ▶ Integrated system design and implementation in active energy structures and materials
- ▶ Bioinspired smart materials and systems for shock and vibration reduction
- ▶ SMS for seismic and impact protection
- ▶ Optimal structural design for energy absorption
- ▶ Innovative vibration and acoustic applications
- ▶ Energy-harvesting from shock and vibration absorption

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/sv/smsea/>.

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