



Smart Systems for Vibration Damping, Control and Energy Harvesting Based on Piezoelectric Actuators: Latest Findings and Applications

Guest Editors:

Prof. Dr. Fabio Botta

Department of Industrial,
Electronic and Mechanical
Engineering, Roma Tre
University, 00146 Rome, Italy

Dr. Andrea Rossi

Department of Industrial,
Electronic and Mechanical
Engineering, Roma Tre
University, 00146 Roma, Italy

Deadline for manuscript
submissions:

closed (29 February 2024)

Message from the Guest Editors

In recent decades, many studies have focused on the development of novel smart-material systems which offer the opportunity to modulate systems' responses through external stimuli, such as strain, magnetic field, electric field, temperature, etc. Shape-memory alloys, electrorheological and magnetorheological fluids and piezoelectrics are the most promising materials for use in vibration damping and control, energy harvesting, precision positioning devices, actuators and sensors' development. Smart materials have several valuable features; for instance, piezoelectrics have large bandwidths, fast responses to stimuli and high displacement resolutions.

In this Special Issue, we focus on the recent advancements and novel techniques in modeling, placement optimization strategies, experiments and new applications, at the macro-scale, based on smart materials. Review and special topic papers are also welcome.

