Special Issue

Active, Semi-active and Passive Vibration Control

Message from the Guest Editors

For several decades, vibration control has been a noteworthy research topic. Our daily lives can be disturbed by unwanted vibrations from the ground, marine, and aerial vehicles in which we ride or the machines and systems that we use. Vibration control can be generally divided into three categories: passive, semi-active, and active vibration control. This Special Issue aims to highlight new advances, as well as pioneering designs and applications in all research areas associated with vibration control arising from steady state or transient excitations. Submissions are encouraged but not limited to the following topics:

- Passive, semi-active, and active vibration isolation algorithms and applications;
- Tuned mass dampers or dynamic vibration absorbers;
- Shock and impact mitigation control;
- Novel structure/mechanism designs for vibration control;
- Engine mounting systems, and seat and vehicle suspension systems;
- Negative-stiffness vibration isolators;
- Bio-inspired vibration control;
- Multifunctional materials for vibration control;
- 3D-printed design for vibration control;
- Vibration-based energy harvesting devices.

Guest Editors

Prof. Dr. Norman M. Wereley

Department of Aerospace Engineering, University of Maryland, 3179J Martin Hall, College Park, MD 20742, USA

Dr. Young-Tai Choi

Department of Aerospace Engineering, University of Maryland, 3179J Martin Hall, College Park, MD 20742, USA

Deadline for manuscript submissions

closed (30 April 2023)

Actuators

an Open Access Journal by MDPI

Impact Factor 2.3
CiteScore 4.3

mdpi.com/si/106406

Actuators
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
actuators@mdpi.com

mdpi.com/journal/actuators

Actuators

an Open Access Journal by MDPI

Impact Factor 2.3
CiteScore 4.3

mdpi.com/journal/actuators

About the Journal

Message from the Editorial Board

We are just entering the Next Wave of Technology (NWT) where actuators will play the same role as the computer chip did for computers/social media approximately four decades ago. Just in the U.S., production of $1 trillion year of electromechanical systems (vehicles, orthotics, manufacturing cells, freight trains, aircraft, etc.) will be impacted by the NWT, all driven by actuators. Five key trends can be found for the future perspectives: “Performance to Reliability”, “Hard to Soft”, “Macro to Nano”, “Homo to Hetero” and “Single to Multi functional”. We invite papers that primarily impact these economic sectors; those illustrating basic scientific principles are also welcome.

Editors-in-Chief

Prof. Dr. Kenji Uchino
Emeritus Academy Institute, The Pennsylvania State University, University Park, PA 16802, USA

Prof. Dr. Norman M. Wereley
Department of Aerospace Engineering, University of Maryland, 3179J Martin Hall, College Park, MD 20742, USA

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within SCIE (Web of Science), Scopus, Inspec, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Mechanical) / CiteScore - Q1 (Control and Optimization)

MDPI