Special Issue

Advanced Theory and Application of Magnetic Actuators—3rd Edition

Message from the Guest Editors

Magnetic actuators are actuators which use magnetic force or Lorentz force, and are extensively utilized in industry, defense, aviation, aerospace, and daily life. Magnetic actuators integrate electromagnetism, electronic technology, superconducting and cryogenic technology, control engineering, signal processing, mechanics, and dynamics. They have attracted extensive attention from scholars both nationally and internationally, thus representing a research hotspot in related fields. In order to overcome the basic scientific and technical problems related to magnetic actuators and compile recent research regarding magnetic actuators and vibration control, this Special Issue of *Actuators*, entitled "Advanced Theory and Application of Magnetic Actuators—3rd Edition", aims to address the use of actuators that employ magnetic force or Lorentz force. This Special Issue also cooperates with the 13th Chinese Symposium on Magnetic Levitation Technology and Vibration Control (https://csve.kejie.org.cn/meeting/MLVC13/), held on 15 August 2025–18 August 2025, Qingdao, China.

Guest Editors

Prof. Dr. Junqi Xu

Prof. Dr. Zhiqiang Long

Prof. Dr. Jin Zhou

Prof. Dr. Feng Sun

Prof. Dr. Chunfa Zhao

Dr. Yougang Sun

Deadline for manuscript submissions

20 February 2026

Actuators

an Open Access Journal by MDPI

Impact Factor 2.3
CiteScore 4.3

mdpi.com/si/241619

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