actuators

an Open Access Journal by MDPI

IMPACT FACTOR 2.3

CITESCORE 4.3

Design and Control of High-Precision Motion Systems

Guest Editors:

Dr. Jinchuan Zheng

Dr. Hai Wang

Dr. Silu Chen

Dr. Ke Shao

Deadline for manuscript submissions:
closed (31 July 2022)

Message from the Guest Editors

Driven by the increasing demand from industry, high-precision motion systems require new design methods on mechanisms, actuators, sensors, and control algorithms to achieve faster response, higher repeatability, more compact size, and lower cost. Advances in high-precision motion systems will make them applicable to a wider range of industrial processes such as nanofabrication machines, hard disk drives, 3D printing devices, scanning and imaging systems, etc. This will also bring economic benefits in terms of product quality, manufacturing efficiency, functionality, and reduced cost. This Special Issue invites contributions from the aspects of mechanism design, system identification, control and estimation, and actuator and sensor design relevant to high-precision motion systems.

- System modelling
- Control and estimation
- Mechanism design
- Microactuators
- Motion sensors
- Vibration control
- Motion control applications

actuators

an Open Access Journal by MDPI

IMPACT FACTOR 2.3

CITESCORE 4.3

Editors-in-Chief

Prof. Dr. Kenji Uchino
Electrical Engineering, Emeritus Academy Institute, 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

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.

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)

Contact Us

Actuators Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/actuators
actuators@mdpi.com
𝕏@Actuators_MDPI