Special Issue

Applications of Intelligent Control in Actuators Systems

Message from the Guest Editors

In the past decade, the necessity of intelligent control of actuators has been widely recognized in various fields, such as robotics, unmanned vehicle, aerospace, industrial production, and others. The limitations of traditional control techniques in dealing with practical problems has prompted people to invent new control schemes to improve control performance. The aim of the present Special Issue is to collect original papers concerned with the theory and application of intelligent control of various actuators, without any limitation on the specific application field. In this Special Issue, theoretical, numerical, and experimental contributions on intelligent control are welcome, particularly the following:

- Model predictive control schemes;
- Variable structure sliding mode control schemes;
- Event-triggered control schemes;
- Observer-based control schemes;
- Neural-network-based control schemes;
- Adaptive control schemes;
- Robust control schemes;
- Fuzzy control schemes;
- Optimal control schemes.

Guest Editors

Prof. Dr. Zhun Fan

Shenzhen Institute for Advanced Study, University of Electronic Science and Technology of China, Shenzhen 518110, China

Prof. Dr. Wu Wei

School of Automation Science and Engineering, South China University of Technology, Guangzhou 510006, China

Deadline for manuscript submissions

closed (28 February 2024)

Actuators

an Open Access Journal by MDPI

Impact Factor 2.3
CiteScore 4.3

mdpi.com/si/123501

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