



## Robot Control in Human-Machine Systems

Guest Editors:

**Dr. Hang Su**

**Dr. Jing Guo**

**Dr. Isuru S. Godage**

**Dr. Yue Chen**

Deadline for manuscript  
submissions:

**closed (15 March 2023)**

### Message from the Guest Editors

Dear Colleagues,

Soft robotics are robotic systems made of materials that are similar in softness to human soft tissues. Recent technological developments have led to the widespread use of soft robotics systems in a broad range of medical applications, including rehabilitation, surgery, and diagnosis. In order to further advance soft robotic systems in medical applications, it is crucial to understand the current achievements and the technical challenges remaining for soft robots. Hence, this Special Issue intends to gather world-class researchers to present state-of-the-art research achievements and advances that contribute to soft robotics techniques in medical applications.

### Keywords:

- soft robot modeling and simulation
- soft robot control, soft sensors and soft actuators, soft electronics
- soft/flexible materials and structures
- soft robot–human interface
- soft robot applications in the medical field
- tissue engineering and biological actuation
- mechanical intelligence of soft materials
- sensing techniques for soft systems
- optimizing soft actuator design and control
- soft robot systems





an Open Access Journal by MDPI

## 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