

Special Issue

Artificial Muscles for Biorobotics: Study, Application and Future Perspectives

Message from the Guest Editors

The first examples of artificial muscles can be traced back to the 1950s, with the invention of the McKibben pneumatic muscle. This type of actuator, thanks to its intrinsic flexibility and biomimetics, immediately found numerous applications in the fields of biomechanics and soft robotics. In recent years, the evolution of materials technology has led to the creation of new examples of artificial muscles, which can exploit novel pneumatic actuator shapes, as well as shape memory alloys or new dielectric elastomers. All this, together with the use of original control techniques, has led to amazing developments in the biorobotics field—that is, the creation of robotic devices interacting with biological organisms, or able to imitate them (biomimetic robotics).

Guest Editors

Prof. Dr. Carlo Ferraresi

Department of Mechanical and Aerospace Engineering DIMEAS, Politecnico di Torino, 10129 Turin, Italy

Dr. Giovanni Gerardo Muscolo

Department of Electrical, Electronic, and Information Engineering “Guglielmo Marconi” ALMA MATER STUDIORUM, Università di Bologna, Viale del Risorgimento, 2, 40136 Bologna, Italy

Deadline for manuscript submissions

closed (30 March 2023)



Actuators

an Open Access Journal
by MDPI

Impact Factor 2.2
CiteScore 3.9



mdpi.com/si/95111

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

[mdpi.com/journal/
actuators](https://mdpi.com/journal/actuators)





Actuators

an Open Access Journal
by MDPI

Impact Factor 2.2
CiteScore 3.9



[mdpi.com/journal/
actuators](https://mdpi.com/journal/actuators)



About the Journal

Message from the Editor-in-Chief

Editor-in-Chief

Prof. Dr. Kenji Uchino
Academy Professor, Emeritus Academy Institute, The Pennsylvania
State University, University Park, PA 16802, 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 - Q2
(Control and Optimization)