Special Issue

4D Printing and 3D Printing in Robotics and Actuator Manufacturing

Message from the Guest Editor

This Special Issue focuses on the application of these technologies in robotics, emphasizing their role in enhancing manufacturing processes and facilitating the creation of more complex, efficient, and responsive robotic systems and actuators. In particular, the Special Issue examines the technical aspects of 3D printing, which allows for the production of sophisticated and customized robotic components. This Special Issue also explores advancements in materials science, crucial for the effectiveness of these printing technologies. It discusses the development of new polymers and composite materials that improve the functionality and durability of printed components. Additionally, the Special Issue addresses the latest engineering processes that underpin these technologies, aiming to provide a comprehensive view of their potential in advancing the field of robotic manufacturing.

Guest Editor

Dr. Stelios K. Georgantzinos

Laboratory for Advanced Materials, Structures, and Digitalization, Department of Aerospace Science and Technology, National and Kapodistrian University of Athens, 34400 Psachna, Greece

Deadline for manuscript submissions

closed (31 July 2025)

Actuators

an Open Access Journal by MDPI

Impact Factor 2.3
CiteScore 4.3

mdpi.com/si/194563

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