

Special Issue

Ergonomic Design and Intelligent Control for Next-Generation Elder Care Robots

Message from the Guest Editors

With the global population aging rapidly, the demand for intelligent and ergonomic elder care robots is growing. This Special Issue aims to present the latest advances in the design, control, and application of next-generation elder care robots. The focus is on integrating ergonomic human-centered design with intelligent control systems, ensuring safety, usability, and efficiency in real-world care environments. Topics of interest include (but are not limited to):

- Human-centered and ergonomic design for elder care robots;
- Intelligent control algorithms for assistive robots;
- Robot perception and decision-making in elder care scenarios;
- Safe human–robot interaction and collaborative robotics;
- Adaptive motion planning and navigation in complex environments;
- Cognitive and emotional modeling for socially assistive robots;
- Wearable sensors and IoT integration for health monitoring;
- Rehabilitation and therapy-focused robotic applications;
- Machine learning and AI techniques for predictive care;

Guest Editors

Dr. Ata Jahangir Moshayedi

Smart Structural Health Monitoring and Control Laboratory, Dongguan University of Technology, Dongguan 523808, China

Prof. Dr. Shuai (Steven) Li

Faculty of Information Technology and Electrical Engineering, University of Oulu, 90570 Oulu, Finland

Deadline for manuscript submissions

closed (30 April 2026)



Automation

an Open Access Journal
by MDPI

Impact Factor 2.0
CiteScore 4.1



mdpi.com/si/260018

Automation
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
automation@mdpi.com

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





Automation

an Open Access Journal
by MDPI

Impact Factor 2.0
CiteScore 4.1



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



About the Journal

Message from the Editor-in-Chief

Automation (ISSN 2673-4052) is an international peer-reviewed open access journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of automation and control system. Both experimental and theoretical papers are published, including all aspects of manufacturing systems, energy management systems, aerospace control systems, learning systems, intelligent control systems and so on. *Automation* organizes Special Issues devoted to specific automation and controlling areas and applications each year.

Editor-in-Chief

Prof. Dr. Eyad H. Abed

Department of Electrical and Computer Engineering and the Institute for Systems Research, University of Maryland, 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 ESCI (Web of Science), Scopus, EBSCO, and other databases.

Reliable Service:

rigorous peer review and professional production.