



International Journal of Mechatronics and Manufacturing Systems

Special Issue on: "Artificial Intelligence for Smart Manufacturing and Mechatronics"

Guest Editors:

Prof. Tuğrul Özel, Rutgers University, U.S.A.

Prof. Panagiotis Kyratsis, University of Western Macedonia, Greece

Assist. Prof. Panorios Benardos, National Technical University of Athens, Greece

This special issue aims to bring researchers together about the latest progress in the artificial intelligence for smart manufacturing and mechatronics. We invite submissions of high-quality research articles related to advances in artificial intelligence (AI) and machine learning (ML) techniques for smart manufacturing, mechatronics, and Industry 4.0/5.0.

Due to the rapid development and applications of advanced technologies, we are experiencing a new industrial revolution, Industry 4.0/5.0, which is a revolution towards further developments in smart manufacturing and mechatronics. The aim of this special issue is to highlight innovative developments with respect to the current challenges and opportunities for the applications of artificial intelligence in smart manufacturing and mechatronics.

Subject Coverage

Suitable topics include, but are not limited, to the following:

- Methods of artificial intelligence for advanced manufacturing technology
- Real-time monitoring with machine learning and deep learning
- Neural networks and applications for manufacturing automation
- Artificial intelligence for predictive manufacturing and maintenance
- Artificial intelligence for smarter cybersecurity in manufacturing
- Reinforcement learning and control in mechatronics systems
- Machine Learning for manufacturing system optimisation
- Human-robot collaborative manufacturing
- ML and AI for process monitoring, diagnostics, prognostics
- Artificial intelligence and robotics in smart manufacturing
- Human-machine interaction in mechatronics and robotics
- IoT-enabled smart manufacturing
- Digital twin-driven smart manufacturing
- Production scheduling with reinforcement learning

Notes for Prospective Authors

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere. (N.B. Conference papers may only be submitted if the paper has been completely re-written and if appropriate written permissions have been obtained from any copyright holders of the original paper).

All papers are refereed through a peer review process.

All papers *must* be submitted online. To submit a paper, please read our [Submitting articles](#) page.

Important Dates

Manuscripts due by: *31 December, 2023*

Notification to authors: *15 February, 2024*

Final versions due by: *30 March, 2024*