

# Special Issue

## Advanced Intelligent Machines (AIMach) in Industry 5.0

### Message from the Guest Editors

This Issue aims to provide a rigorous scientific forum for the dissemination of cutting-edge research on intelligent mechanical systems within the context of modern industry. We welcome high-quality contributions addressing theoretical advances, computational methodologies, and experimental validations that deepen the understanding and practical implementation of advanced intelligent machines. Particular emphasis is placed on innovative system architectures, physics-based and data-driven modeling strategies, optimization techniques, and impactful industrial applications. Topics of interest include, but are not limited to, the following areas:

- Cyber-physical systems in mechanical engineering;
- Digital twin technologies;
- Machine learning for mechanical systems;
- Smart actuators and intelligent sensors;
- Adaptive and reconfigurable machines;
- Human-robot collaboration;
- Predictive maintenance strategies;
- AI-driven design optimization;
- Intelligent control systems;
- Mechatronic system integration;
- Data-driven modeling of mechanical systems;
- Smart manufacturing systems;
- Sustainable and energy-efficient machines;
- Fault diagnosis and health monitoring;
- Ethics and safety in intelligent mechanical systems.

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### Guest Editors

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### Deadline for manuscript submissions

31 December 2026



## Machines

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## About the Journal

### Message from the Editor-in-Chief

*Machines* is an international, peer reviewed journal on machinery and engineering. It publishes research articles, reviews and communications.

Our aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. There is no restriction on the length of the papers. Full experimental and/or methodical details must be provided.

There are, in addition, unique features of this journal: Manuscripts regarding research proposals and research ideas will be particularly welcomed; Electronic files or software regarding the full details of the calculation and experimental procedure - if unable to be published in a normal way can be deposited as supplementary material.

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### Editor-in-Chief

Prof. Dr. Antonio J. Marques Cardoso  
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JCR - Q2 (Engineering, Mechanical) / CiteScore - Q1  
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#### Rapid Publication:

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