

Special Issue

Advances in Smart Manufacturing and Industry 4.0

Message from the Guest Editor

Additive Manufacturing (AM) technologies revolutionize design flexibility and functional integration. This *Machines* Special Issue focuses on integrated process monitoring and control for AM, including PBF-LB, DED, Binder Jetting, and FDM. We invite research on machine/deep learning for real-time quality control, closed-loop feedback, and anomaly detection. Topics of interest include computational modeling, multi-physics simulations, topology optimization, and Digital Twin frameworks combining sensor fusion and simulations for process optimization. Submissions on hybrid manufacturing, reinforcement learning, explainable AI for defect diagnosis, and sustainable AM practices are encouraged. We also welcome studies on real-time defect detection, multi-modal data analytics, and cyber-physical security in AM platforms.

Guest Editor

Dr. Abdullah Al Amin

Department of Mechanical and Aerospace Engineering, University of Dayton School of Engineering, Dayton, OH 45409, USA

Deadline for manuscript submissions

31 March 2026



Machines

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 4.7



mdpi.com/si/248409

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

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





Machines

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 4.7



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



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.

Editor-in-Chief

Prof. Dr. Antonio J. Marques Cardoso
CISE - Electromechatronic Systems Research Centre, University of
Beira Interior, Calçada Fonte do Lameiro, P-6201-001 Covilhã, Portugal

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), Inspec, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Mechanical) / CiteScore - Q1
(Control and Optimization)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.9 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).