Special Issue

Machine Intelligence in Welding Process

Message from the Guest Editor

Rapid advancements in machine intelligence, particularly in the realms of artificial intelligence, machine learning, surrogate modeling, computer vision, and robotics, have significantly impacted various industries. One such industry undergoing a transformative phase is welding, a fundamental process in manufacturing and fabrication. This Special Issue aims to explore the synergies between machine intelligence and welding processes, encompassing a wide spectrum of research and applications. The topics of interest for this Special Issue include the following:

- Intelligent Welding Automation;
- Machine Learning (ML) in Fabrication;
- Computer Vision in Weld Inspection;
- Digital Twins for Welding;
- Innovative Applications of Machine Intelligence;
- Augmented Reality (AR) in Welding;
- Industry 5.0 Integration;
- Additive Manufacturing (AM) and Welding;
- Surrogate Modeling for Structural Integrity;
- Modeling and Simulation;
- Challenges, Future Directions, and Emerging Trends.

Guest Editor

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Deadline for manuscript submissions

closed (30 September 2024)

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

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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).