Intelligent Welding

Guest Editor:

Dr. Hessamoddin Moshayedi
Institute for Steel Construction,
Leibniz University Hannover,
Hannover, Germany

Deadline for manuscript submissions:
closed (15 May 2024)

Message from the Guest Editor

Nowadays, welding processes are becoming increasingly complex, with novel parameters to address the new requirements of users and customers, particularly in dynamic environments. As welding moves towards more customized production, next-generation welding systems should be able to intelligently adjust to changing welding tasks while maintaining high quality. Advancements in computer science, control theory, robotics, and machine learning are facilitating intelligent automation, real-time monitoring, analysis, process control, and decision making, i.e., areas of exploration in manufacturing research initiatives such as Industry 5.0 and smart manufacturing.

This Special Issue calls for papers that present innovative works on the improvement of the concepts, technologies, and system architectures of the welding processes, including sensing, monitoring and signal processing, feature extraction and selection, real-time modelling, decision-making, learning and developing of intelligent welding systems, and digital twin systems for welding processes.

Special Issue

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

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.
High Visibility: indexed within Scopus, SCIE (Web of Science), Inspec, and other databases.
Journal Rank: JCR - Q2 (Engineering, Mechanical) / CiteScore - Q2 (Control and Optimization)

Contact Us