Special Issue

Intelligent Welding

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.

Guest Editor

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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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