

Special Issue

Artificial Neural Network Prediction in Metal Forming Processes

Message from the Guest Editors

Artificial neural networks (ANN) are already being used to solve classification and regression problems in metal forming processes, such as formability analysis, process optimization, and tool design. In this context, ANN-based techniques can be combined with real and/or synthetic data to model the non-linear relationships between the parameters of the forming process and the final quality of the components, such as their geometric features, the constitutive parameters of the materials, the occurrence of defects, and the estimation of component costs. In this Special Issue, we welcome articles whose results, obtained in different applications to metal forming processes, show the potential of artificial-neural-network-based techniques.

Guest Editors

Prof. Dr. José Valdemar Fernandes

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Dr. Pedro Prates

Deadline for manuscript submissions

closed (30 September 2023)



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Message from the Editorial Board

Metallic materials play a vital role in the economic life of modern societies; contributions are sought on fresh developments that enhance our understanding of the fundamental aspects related to the relationships between processing, properties and microstructure – disciplines in the metallurgical field ranging from processing, mechanical behavior, phase transitions and microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

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