



Frontiers in Manufacturing Processes Based on Artificial Intelligence Techniques

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Message from the Guest Editors

Manufacturing have evoked new challenges to industrial companies. Advanced manufacturing approaches are urgently required to satisfy this increased volatility. Against this backdrop, a new paradigm shift towards developing a fully digitalized manufacturing industry has been initiated worldwide.

However, complex interactions in the machining zone cause significant challenges in its deployment due to the unmodelled dynamics and uncertainties as well as some less-understood mechanical processes. Given the advances in sensor technologies, the processes can now be sensorized, and the vast amount of data produced can be exploited to model and monitor the processes using Artificial Intelligence (AI) techniques. Data-driven models have turned into a hot topic in engineering with the rise of machine learning and deep learning algorithms.

This Special Issue focuses on the application of AI on manufacturing processes for various targets that include, but are not limited to, intelligent manufacturing, digital twins, diagnostics, and prognostics. This includes theoretical work, application-based studies on the application of AI, and processes associated with manufacturing applications.





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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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