Special Issue

Advances in Machine Fault Diagnosis

Message from the Guest Editors

Dear Colleagues: Research on machine fault diagnosis (MFD) methods is receving significant attention in academia and industry due to the importance of identifying underlying causes of machine faults. The overall objective of MFD methods is to develop an effective diagnosis procedure. Recent methodological advances permit compressive MFD, providing detailed information essential for the prevention of future machine failures. Some of the most promising approaches for the continuous advancement of fault detection and diagnosis technologies are: advanced digital signal processing, vibration-based condition monitoring, modal and operational mode analysis, neural network analysis, and machine learning. Artificial intelligence (AI) has become one of the most transformative technological revolutions since, e.g., the invention of the steam or electric engines. Robustness, precision automated (online) learning, and the capacity to handle complex data are some of AI's attributes that hold significant potential for MFD.

Guest Editors

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Deadline for manuscript submissions

closed (31 March 2021)

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/si/42999

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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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