Special Issue

Artificial Intelligence in Fault Diagnosis and Signal Processing, 2nd Edition

Message from the Guest Editors

The early detection and diagnosis of faults is essential in industrial processes since it can help avoid potentially irreparable damage to machinery. Additionally, in terms of industrial safety, timely fault detection and diagnosis can facilitate safer operations, reducing the risks to which plant workers are exposed. Therefore, detecting and diagnosing faults quickly and accurately can facilitate decision-making in a way that enables corrective actions to be taken to repair damaged components. In recent years, various machine fault detection techniques have emerged, and artificial intelligence and signal processing have become essential components thereof. However, this research field continues to generate new trends in terms of the methodologies related to multiple fault detection, novelty detection, data mining, development in hardware, etc. The goal of this Special Issue is to present ideas that are relevant to the field of fault diagnosis using artificial intelligence and signal processing.

- neural networks
- machine learning
- sensors
- novelty detection
- data mining
- signal processing methods
- signal processing implementation
- FPGA
- HIL

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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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