Special Issue

Mechanical Fault Diagnosis and Signal Processing

Message from the Guest Editors

This Special Issue aims to collect and publish the results of innovative research in the field of mechanical fault diagnosis and signal processing. Electrical and mechanical machines such as motors, pumps, gearboxes, and compressors are widely used in industrial processes; although most of these elements have been previously assessed, new challenges arise as industry applications and machinery configurations become increasingly complex. While any machine is strictly composed of mechanical elements that can fail due to extreme operating conditions, the most common faults are related to problems in shafts, bearings, couplings, gears, and rotors. This Special Issue will share novel signal processing methods applied to the detection and identification of mechanical faults, involving applications based on classic or advanced processing techniques like Fourier Transform, Wavelet Transform, Hilbert Transform, and MUSIC.Thus, this Special Issue is focused on, but not limited to, the following topics: Intelligent fault detection; High-resolution signal processing; Noise elimination and feature extraction; Non-linear operating conditions; Electromechanical systems.

Guest Editors

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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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