The Application of Information Theory in Fault Detection and Diagnosis

Guest Editor:

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Message from the Guest Editor

This Special Issue provides a forum for the presentation of new and improved techniques for signal processing applied to fault detection and classification in power systems and industrial machines based on information theory, entropy, and machine learning.

The topics include but are not limited to the following:

- fault diagnosis and prognosis
- application of entropy in instrumentation and fault diagnosis
- application of entropy in power systems for fault diagnosis
- intelligent instrumentation
- artificial intelligence and IoT in instrumentation
- compressed sensing
- early detection of incipient faults
- signal processing for monitoring and diagnosis
- information theory for patterns classification
- multi-sensor information fusion for instrumentation and fault diagnosis
- embedded systems for information theory processing
- machine learning for fault detection and classification

Special Issue

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Message from the Editor-in-Chief

The concept of entropy is traditionally a quantity in physics that has to do with temperature. However, it is now clear that entropy is deeply related to information theory and the process of inference. As such, entropic techniques have found broad application in the sciences.

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