# Special Issue

# Fault Diagnosis Method Based on Information Theoretic: From Theory to Applications

## Message from the Guest Editors

In smart systems, faults are detected at an early stage and classified, and the system lifetime is predicted to optimize maintenance operations. In order to meet these requirements, new monitoring algorithms are continuously developed. These algorithms integrate state-of-the-art signal and data analysis/processing techniques, entropy-based study, statistical learning, and pattern recognition approaches. This issue will focus on the application of all of these signal and analysis/processing techniques for the health monitoring of complex systems. Particular attention is paid to statistical/entropy-based detection/estimation techniques. Many approaches are concerned with topics such as quantitative approaches with wide and efficient physical modeling, qualitative approaches, and data driven ones. For this issue, either theoretical or applicative works will be considered. Particular attention will be paid to applications in tune with time such as human health, renewable energy based systems, smart grids, vehicular and industrial applications, etc.

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## Deadline for manuscript submissions

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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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