Tentative Outline

Artificial Intelligence and deep learning in machinery fault diagnosis

Guest Editors: Dr. H.S Kumar

Aims & Scope:

The aim of the thematic issue is to provide a platform for one of the promising and evolving topics in current research arena namely the Artificial Intelligence (AI) and deep learning in machinery fault diagnosis. The focus of the special issue is to showcase some of the recent developments and novel applications of AI and deep learning in machinery fault diagnosis. With the rapid advance of technology, AI techniques and deep learning approaches are being effectively used in the field of machine health monitoring as well as to improve the life of the machines, thus avoiding the risk of false diagnosis, making of therapeutic decisions and prediction of incipient machinery faults.

Scope:

This special issue provides a forum for the publication of articles that address broad challenges on both theoretical and application aspects of AI and use of deep learning in machinery fault diagnosis. The special issue is open for scholars and researchers to contribute original research articles as well as review articles that will stimulate the continuing effort on the application of AI approaches and use of deep learning techniques to solve fault related to machines. Papers are solicited on the latest results from the recent advancement in technologies and applications of AI and deep learning. Topics include, but not limited to:

Mathematical modelling, ANN, electrical machines, signal processing, diagnostics, reliability, power system planning and control, power quality, optimization techniques, fault location and analysis, renewable energy sources, energy management, sensors and actuators, electrical circuits, Deep Learning and Deep Computation , Deep learning of applications in machinery fault diagnosis, machine learning, reinforcement learning, Modern applications of AI or ML in machinery fault diagnosis

Keywords:

Bearing condition monitoring, wavelet transform, ANN, pattern recognition, Machine learning

Subtopics:

In this special issue, we intend to consider the recent advances in theory and the related topics with real world applications. Potential topics include but not limited to:

Mathematical modelling, ANN, Electrical machines, Signal processing, Diagnostics, Reliability, Power System Planning and Control, Power Quality, Optimization Techniques, Fault Location and Analysis, Renewable Energy Sources, Energy Management, Sensors and Actuators, Electrical Circuits, Deep

Learning and Deep Computation, Deep Learning of Applications in Machinery Fault Diagnosis, Machine Learning, reinforcement learning, Modern applications of AI or ML in machinery fault diagnosis

Schedule:
• **Time line for submission: June 15, 2020**

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