Special Issue

Data-Driven Approaches regarding Dynamic Modelling, Diagnostics and Prognostics of Complex Mechanical Structures

Message from the Guest Editors

With the advancement of big data and industry 4.0-related technologies, data-driven approaches have gained significant attention among researchers from the area of the health management of complex mechanical structures. By making full use of the data-driven approaches, the decision maker can not only identify the problem of mechanical structures in a convenient manner but also perform necessary maintenance actions prior to failure of the structure under consideration. In this context, data-driven approaches have emerged as some of the key enablers in improving safety, increasing operational reliability and mission availability, decreasing unnecessary maintenance actions, and reducing system life-cycle costs. Considering the diverse and considerable state-of-the-art research status and related prospects of the data-driven approaches, this Special Issue aims to invite researchers from all aspects of the health management of complex mechanical structures to submit their work.

Guest Editors

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Message from the Editor-in-Chief

Machines is an international, peer reviewed journal on machinery and engineering. It publishes research articles, reviews and communications.
Our aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. There is no restriction on the length of the papers. Full experimental and/or methodical details must be provided.
There are, in addition, unique features of this journal: Manuscripts regarding research proposals and research ideas will be particularly welcomed; Electronic files or software regarding the full details of the calculation and experimental procedure - if unable to be published in a normal way can be deposited as supplementary material.

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