Special Issue

Advances in Machinery Condition Monitoring, Diagnosis and Prognosis

Message from the Guest Editors

This Special Issue of *Machines* solicitates the novel research studies that can make significant contributions to advancing state-of-the-art machinery monitoring, diagnosis and prognosis techniques, leading to enhanced diagnosis and prognosis accuracy, robustness and reliability in the practical applications. The research topics of interest include, but are not limited to:

- Enhanced signal processing and feature extraction for retrieving the pivot fault-related signals.
- Enhanced multi-physics system-level modeling and simulation of machinery to elucidate the consequence of component fault occurrence.
- Novel machine-learning-enabled intelligent fault diagnosis and prognosis with enhanced performance even under the limited quality and size of available dataset.
- Novel integrated/unified numerical framework/platform that leverages the synergic advancement of physical modeling, signal processing, machine learning and optimization methods.
- The demonstrations of practical and challenging fault diagnosis and prognosis applications.
- Reliability-based analysis and design of machinery considering the multifarious uncertainties.

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Deadline for manuscript submissions

closed (31 December 2024)

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About the Journal

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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manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.9 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).