Special Issue

Vibration Energy Harvesting and Intelligent Monitoring for Rotating Machinery

Message from the Guest Editors

Rotating machinery serves as a core component of modern industrial systems, with wide applications in aerospace, energy, transportation, etc. The vibration signals generated during operation contain rich information about machine states, making the study of vibration characteristics, testing, and monitoring technologies a long-standing research focus. In recent years, significant progress has been driven in vibration testing and intelligent monitoring of rotating machinery. Recent advances include embedded/wireless sensors, vibration energy harvesting, and AI-based fault diagnosis, enabling autonomous wireless monitoring networks. This Special Issue welcomes research on:

- Dynamic modeling and vibration analysis of rotating machinery;
- Vibration testing and in situ measurement methods;
- Embedded monitoring systems;
- Self-powered sensor design;
- Deployment and robustness of wireless sensor networks;
- Intelligent monitoring of critical components in aero-engines;
- Fault mechanism analysis and diagnostic techniques;
- AI-enabled condition monitoring.

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.

Editor-in-Chief

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