Special Issue

Vibration and Acoustic Analysis of Components and Machines

Message from the Guest Editor

Vibration and acoustic analysis is an interdisciplinary field, incorporating diverse subjects such as computational and numerical dynamic analysis, signal processing and sensor technology. Mechanical vibrations and sounds impact the design and performance of engineered devices and structures. The aim of this Special Issue is to gather recent developments in the field, focusing on critical issues and successful applications of vibration and acoustic analysis.Topics relevant to the session include, among others:

- Analytical, numerical and computational structural dynamics, vibration and acoustics analysis;
- Machinery dynamics and rotordynamics;
- Machinery noise and vibration;
- Fluid–structure interaction, aeroelasticity, flow-induced vibration and noise;
- Vibration-based structural health monitoring;
- Prediction of fatigue damage accumulation using monitoring data;
- Damage detection and localization;
- Optimal sensor location;
- Linear and nonlinear vibrations;
- AI and machine learning methods;
- Material systems and technologies for noise and vibration control;
- Experimental testing in vibration and structural acoustics.

Guest Editor

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Deadline for manuscript submissions

closed (20 February 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.

Editor-in-Chief

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