

Special Issue

Dynamics and Diagnostics of Heavy-Duty Industrial Machines, Volume II

Message from the Guest Editors

Industrial machines constitute the basis of any developed economy. In the design stage, heavy-duty machines are optimized to sustain a harsh working environment and severe external loads. However, during operation, different factors not accounted for in the design stage such as the excessive wear of parts or improper maintenance play a dominant role in overall machine reliability. The dynamics of industrial machines include the analysis of numerous nonlinear phenomena, which may occur due to clearances in drivelines or periodic stiffness changing in a gear meshing, the synchronization of coupled drives, the frequency capture and the jumping phenomenon of the amplitude, natural mode variation in the multi-body systems, and other effects. This Special Issue will provide a forum for researchers and practitioners to exchange their latest theoretical and engineering achievements and identify critical issues and challenges for future studies in the analysis of dynamical phenomena in industrial machines. The results of experimental research in field conditions are highly encouraged for submission.

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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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