Special Issue

Condition Monitoring for Non-stationary Rotating Machines

Message from the Guest Editor

Condition monitoring of complex machines undergoing nonstationary operation conditions is a topical issue. Signals acquired from machines having a complex design and operating in complex conditions contain contributions from several different components, as well as noise. Therefore, the major challenge of condition monitoring is to recover specific information about the signal components, in order to point out the signal content that is related to the state of the monitored component. A pivotal role for rotating machines is played by gears and bearings: The condition monitoring task for this kind of components has stimulated appropriate signal processing techniques, based, for example, on the separation of the cyclostationary components of vibration signals. This Special Issue aims at attracting contributions about theoretical and experimental developments about every possible aspect of condition monitoring for nonstationary rotating machines. Suitable topics include but are not limited to:

- Rolling bearing diagnostics;
- Geared systems diagnostics;
- Signal processing;
- Test rig and laboratory developments;
- Numerical modeling of machine dynamics;
- Case studies.

Guest Editor

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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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