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# Machine Condition Monitoring and Fault Diagnosis: From Theory to Application

Guest Editor:

#### Dr. Feiyun Cong

School of Mechanical Engineering, Zhejiang University, Hangzhou 310027, China

Deadline for manuscript submissions: closed (20 July 2023)

#### Message from the Guest Editor

Dear Colleagues,

Gearbox is one of the key transmission devices in various applications. Its health state will influence the machine security of operations. It is important to develop new intelligent fault diagnostic methods and assess their health state for the aim of identifying the mode, type, severity, and degradation trend of faults.

This Special Issue focuses on gearbox fault diagnosis methods, especially those with new gearbox fault models or new intelligent algorithms. Authors are encouraged to submit papers in the areas of wind power gearboxes, aeroengine gearboxes, and rail transit gearboxes.

Potential topics include, but are not limited to, the following:

- Fault diagnosis methods based on various sensor data;
- Fault model research with changeable variable transfer paths;
- Fault diagnostics under nonstationary operating conditions;
- Fault prediction;
- Machine-learning-based fault diagnostics and condition monitoring;
- Fatigue analysis of machinery.





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# **Editor-in-Chief**

#### Message from the Editor-in-Chief

**Prof. Dr. Giulio Nicola Cerullo** Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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