



## Intelligent Fault Diagnosis of Rotating Machinery

Guest Editors:

**Dr. Laifa Tao**

Institute of Reliability  
Engineering, Beihang University,  
Beijing 100191, China

**Dr. Jie Liu**

School of Reliability and Systems  
Engineering, Beihang University,  
Beijing 100191, China

**Dr. Shuai Zhao**

AAU Energy, Aalborg University,  
9220 Aalborg, Denmark

Deadline for manuscript  
submissions:

**closed (28 March 2023)**

### Message from the Guest Editors

Diverse rotating machineries, as crucial entities, are widely integrated in high-tech equipment of the Industry 4.0 era. Timely diagnosing abnormal behavior and identifying fault locations are essential for in-service operation. This Special Issue will collect all research on intelligent fault diagnosis methods and applications in rotating machineries, including (but not limited to):

- Advanced sensing and perception;
- Advanced signal processing and deep feature mining;
- Knowledge discovery;
- Incipient anomaly detection;
- Deep-learning-assisted methods in fault diagnosis;
- Unbalanced dataset and mitigation methods;
- Transfer learning and domain adaptation;
- Open-source datasets and dissemination;
- Adaptive and online learning;
- Physics-informed machine learning and hybrid methods;
- Digital-twin-based fault diagnosis;
- Failure prognosis;
- Hardware and IoT system for intelligent fault diagnosis;
- New applications of rotating machinery diagnosis.





an Open Access Journal by MDPI

## Editor-in-Chief

**Prof. Dr. Giulio Nicola Cerullo**

Dipartimento di Fisica,  
Politecnico di Milano, Piazza L.  
da Vinci 32, 20133 Milano, Italy

## Message from the Editor-in-Chief

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.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), Inspec, CAPlus / SciFinder, and other databases.

**Journal Rank:** JCR - Q2 (*Engineering, Multidisciplinary*) / CiteScore - Q1 (*General Engineering*)

## Contact Us

---

Applied Sciences Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/applsci](http://mdpi.com/journal/applsci)  
[applsci@mdpi.com](mailto:applsci@mdpi.com)  
[X@Applsci](https://twitter.com/Applsci)