

## Special Issue

# Machine Fault Diagnostics and Prognostics

### Message from the Guest Editors

This Special Issue will focus on the topic of fault diagnosis and prognosis of industrial equipment and mechanical structures. We invite researchers and practicing engineers to contribute original research articles that discuss issues related but not limited to condition-based monitoring, fault diagnosis and prognosis of industrial machines and mechanical structures, diagnostic and prognostic techniques based on AI, such as deep learning, transfer learning, and neuro-fuzzy inference techniques, AI-based solutions that are explainable, solutions utilizing the Internet of Things, cloud computing, cyber physical systems, and machine-to-machine interfaces and paradigms for fault diagnosis and prognosis in the context of Industry 4.0. We would also welcome review articles that capture the current state-of-the-art and outline future areas of research in the fields relevant to this Special Issue.

#### Keywords

- Condition monitoring
- Fault diagnosis
- Health prognosis
- Remaining useful life
- Deep learning
- Artificial intelligence
- Condition-based maintenance
- Cyber physical systems

---

### Guest Editors

Prof. Dr. Jong-Myon Kim

School of IT Convergence, University of Ulsan, Ulsan 4402, Republic of Korea

Prof. Dr. Cheol Hong Kim

School of Computer Science and Engineering, Soongsil University, Seoul 06978, Korea

---

### Deadline for manuscript submissions

closed (15 March 2020)



## Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.3



[mdpi.com/si/27819](https://mdpi.com/si/27819)

*Applied Sciences*  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[appls@mdpi.com](mailto:appls@mdpi.com)

[mdpi.com/journal/  
appls](https://mdpi.com/journal/appls)





# Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.3



[mdpi.com/journal/  
applsci](https://mdpi.com/journal/applsci)



## About the Journal

### 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.

---

### Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo  
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32,  
20133 Milano, Italy

---

### 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), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q1 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)