

## Special Issue

# Novel Approaches in Fault Detection of Electrical Equipment Using Multiple Monitoring Signals

### Message from the Guest Editor

Fault detection plays a significant role in modern industrial production by enabling the early identification of equipment faults, damages, or failures, as well as the timely implementation of maintenance measures to prevent operational disruptions, reduce maintenance costs, and avoid potential safety hazards. To address this, this Special Issue welcomes original research papers that have been experimentally validated, as well as review articles and technical assessment reports.

Fault mechanisms of modern electrical equipment;  
Signal processing for multiple monitoring signals;  
Degradation modeling of modern electrical equipment;  
Health status assessment under multiple monitoring signals;  
Remaining useful life prediction for fault detection of electrical equipment;  
Fault detection using artificial intelligence and digital twin techniques;  
Instruments for fault detection of electrical equipment;  
Intelligent maintenance for electrical equipment considering fault dependency.

### Guest Editor

Dr. Chaoqun Duan

1. School of Mechatronic Engineering and Automation, Shanghai University, Shanghai 200444, China  
2. Department of Aeronautics and Astronautics, Stanford University, Stanford, CA 94305, USA

### Deadline for manuscript submissions

closed (30 October 2024)



## Applied Sciences

an Open Access Journal  
by MDPI

Impact Factor 2.5  
CiteScore 5.5



[mdpi.com/si/171017](https://mdpi.com/si/171017)

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

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





# Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



[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 - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering )