Special Issue

Fault Diagnosis for Electrical Machines, Power Electronics, and Drives

Message from the Guest Editors

Electrical machines are connected to power electronics creating electrical drives. The pulsed voltage waves provided from power electronics produce a faster aging of the insulation materials of the electrical machines, increasing the fault probability, not only of electrical faults but also mechanical and magnetic faults. Furthermore, additional faults can be found in the power electronics involved. New diagnosis techniques must be developed in order to satisfy the problem. The Issue is focused but not limited to the following topics:

- The Issue is focused but not limited to the following topics:
- Electrical machines fault diagnosis;
- Power electronics fault diagnosis;
- New power converter topologies (For example: modular multilevel converters, partial power converters, exciter and rotor placed power electronics);
- Electric drives fault diagnosis;
- New fault detection, classification and fault location methods;
- Industrial and laboratory experiments, studies about fault parameters behavior and/or features extraction for fault diagnosis;
- Smart diagnosis (data driven techniques, cloud computing, digital twins diagnosis, etc.);

Guest Editors

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Deadline for manuscript submissions

30 January 2026

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/si/202665

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mdpi.com/journal/applsci

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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.

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