Special Issue

Novel Approaches for Fault Diagnostics of Machine Elements

Message from the Guest Editors

The target of this Special Issue is to compile a comprehensive overview of contemporary and novel approaches to fault diagnostic of machine elements. The focus is on non-destructive measuring, evaluation, and signal processing techniques. In addition, the approaches must, at least, be verified in typical machine element applications. The algorithms need to be validated in experiments to provide results superior to the current state of research. **Keywords**

- fault diagnosis
- impedance measurement
- predictive maintenance
- predictive health monitoring
- non-destructive measurement
- feature engineering
- rolling element bearings
- plain and journal bearings
- involute gears
- bevel and worm gear drives
- shiftable and non shiftable clutches
- shaft-hub connections
- sealing components

Guest Editors

Prof. Dr. Eckhard Kirchner

Prof. Dr. Tobias Melz

Prof. Dr. Uwe Klingauf

Dr. Sven Herold

Florian Becker-Dombrowsky

Deadline for manuscript submissions

closed (30 April 2025)



Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.5



mdpi.com/si/210882

Applied Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
applisci@mdpi.com

mdpi.com/journal/applsci





Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.5



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)

