



Signal Processing and Artificial Intelligence Technology for High-End Equipment Fault Diagnosis

Guest Editors:

Dr. Bingyan Chen

Centre for Efficiency and Performance Engineering,
University of Huddersfield,
Huddersfield HD1 3DH, UK

Dr. Yao Cheng

State Key Laboratory of Rail Transit Vehicle System,
Southwest Jiaotong University,
Chengdu 610031, China

Deadline for manuscript submissions:

31 October 2024

Message from the Guest Editors

With the enrichment of functions and the integration of intelligence, the safety of high-end equipment in various industrial fields, such as high-speed trains, wind turbines, engines, gas turbines, compressors and machine tools, is receiving unprecedented attention from academia and industry. Fault diagnosis is an effective means to ensure the safe operation of machines, and it can significantly minimize operation and maintenance costs and enhance the economic benefits. Scholars, researchers and engineers are seeking advanced and efficient fault diagnosis technologies to ensure the performance and efficiency of machines, especially high-end equipment. With the advancement of monitoring and sensing technology, machine status data are continuously accumulated, providing effective support for the development of fault diagnosis technology based on signal processing and artificial intelligence. Therefore, this Special Issue aims to publish research work on condition monitoring and fault diagnosis of high-end equipment through advanced signal processing and artificial intelligence technologies.





an Open Access Journal by MDPI

Editor-in-Chief

**Prof. Dr. Antonio J. Marques
Cardoso**

CISE—Electromechatronic
Systems Research Centre,
University of Beira Interior,
Calçada Fonte do Lameiro, P-
6201-001 Covilhã, Portugal

Message from the Editor-in-Chief

Machines is an international, peer reviewed journal on machinery and engineering. It publishes research articles, reviews and communications.

Our aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. There is no restriction on the length of the papers. Full experimental and/or methodical details must be provided.

There are, in addition, unique features of this journal: Manuscripts regarding research proposals and research ideas will be particularly welcomed; Electronic files or software regarding the full details of the calculation and experimental procedure - if unable to be published in a normal way can be deposited as supplementary material.

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, and other databases.

Journal Rank: JCR - Q2 (Engineering, Mechanical) / CiteScore - Q2 (Control and Optimization)

Contact Us

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

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/machines
machines@mdpi.com
[X@Machines_MDPI](https://twitter.com/Machines_MDPI)