Special Issue

Advanced Machine Condition Monitoring and Fault Diagnosis

Message from the Guest Editor

This Special Issue highlights recent advances in machine condition monitoring and fault diagnosis—key to enhancing the reliability, safety, and efficiency of industrial systems. The integration of intelligent systems, sensors, and data-driven methods has significantly advanced predictive maintenance and early fault detection. We invite high-quality articles on innovative methodologies, algorithms, and applications, including: advanced signal processing; machine/deep learning for fault diagnosis; non-stationary and non-linear system analysis; sensor fusion; RUL prediction; digital twins; and real-time monitoring. Studies may address mechanical, electrical, or hybrid systems across industrial, transportation, or energy sectors. Submissions may be theoretical, computational, or experimental, and should clearly demonstrate improvements over existing methods. Case studies with real-world validation are welcome. This issue aims to unite researchers and practitioners from academia and industry to foster interdisciplinary collaboration and advance the frontiers of condition monitoring and fault diagnosis.

Guest Editor

Dr. Gómez María Jesús
Departamento de Ingeniería Mecánica, Universidad Carlos III de Madrid, 28911 Leganés, Spain

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

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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.

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

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