

## Special Issue

# Data-Driven Approaches in Acoustics and Vibration for Predictive Diagnostics

### Message from the Guest Editor

This Special Issue, *“Data-Driven Approaches in Acoustics and Vibration for Predictive Diagnostics”*, calls for research on using signal processing and AI for machine fault prediction. We seek works on condition monitoring, diagnostics, and prognostics, especially those blending physics with data-driven models or demonstrating real-world robustness. **Topics include:** data-driven monitoring; ML/DL for fault diagnosis; advanced signal processing (wavelets, VMD, etc.); structural health monitoring; acoustic emission; physics-informed AI; prognostics (RUL); and industrial case studies.

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### Guest Editor

Dr. David Isaac Ibarra-Zarate

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### Deadline for manuscript submissions

31 July 2026



## Machines

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## About the Journal

### 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.

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### 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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