Special Issue

New Trends in Experimental and Numerical Vibroacoustic Techniques—Physics Guided and Datas Guided Approaches

Message from the Guest Editors

This Special Issue focuses on the scientific progress related to vibration, shock, and noise in materials, structures, and systems, as well as dynamic coupling in vibro-acoustics, biomechanics, and multiphysics. It covers new theoretical, numerical, and experimental developments. It addresses several research themes, including damping prediction, nonlinear dynamic behavior, vibrations of intelligent structures and architectural materials, vibration and acoustic metrology, signal processing for mechanics, and medium- and high-frequency applications, while considering uncertainties, experimental methods, industrial applications, and machine learning applied to dynamic systems. It will welcome all advances in the transport, sports, biomedical, energy, and civil engineering sectors. This Special Issue also aims to encourage scientific publications on advanced methods for analyzing data and modeling the dynamics of materials and structures. Interest in all types of data, but more particularly in data for which recent advances have been made in the field of Artificial Intelligence.

Guest Editors

Prof. Dr. Mohamed Ichchou

Laboratory of Tribology and Dynamics of Systems, Ecole Centrale Lyon, 69130 Ecully, France

Prof. Dr. Noureddine Bouhaddi

Department of Applied Mechanics, Femto-ST Institute, Besançon, France

Deadline for manuscript submissions

31 March 2026



Vibration

an Open Access Journal by MDPI

Impact Factor 1.6 CiteScore 3.4



mdpi.com/si/254450

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

mdpi.com/journal/ vibration





Vibration

an Open Access Journal by MDPI

Impact Factor 1.6 CiteScore 3.4



About the Journal

Message from the Editor-in-Chief

Editor-in-Chief

Prof. Dr. Aleksandar Pavic

College of Engineering, Mathematics and Physical Sciences, University of Exeter, Kay Building, Exeter EX4 4QF, UK

Author Benefits

High Visibility:

indexed within Scopus, ESCI (Web of Science), and other databases.

Journal Rank:

CiteScore - Q2 (Engineering (miscellaneous))

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 22.7 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the first half of 2025).

