Special Issue

Rotordynamics in Automotive Engineering

Message from the Guest Editors

Progress in engine and powertrain technologies within automotive engineering is mainly driven by trends related to electric drives, hydrogen power, and environmental concerns. The advances are primarily correspond to efficiency of mechanical layouts. downsizing, energy requirements, and environmental footprints. Passenger cars and commercial vehicles raise engineering problems that are subject to changing standards regarding environmental restrictions, power sources, and customer needs. Alternative solutions are sought via multiphysical models, advanced physics, oilfree technology, including gas lubrication and biolubricants, and smart features in machine components, including smart materials. For this Special Issue, we are seeking original contributions related to emerging trends in the dynamics of rotating machines in automotive applications. Specific topics of include but are not limited to new rotor dynamic concepts in engines and electric motors, fuel cell air supply, and power transmission or peripherals, including gear dynamics and ball bearings, with regard to the aforementioned emerging trends.

Guest Editors

Prof. Dr. Jerzy T. Sawicki

Center for Rotating Machinery Dynamics and Control (RoMaDyC), Cleveland State University, Cleveland, OH 44115, USA

Prof. Dr. Athanasios Chasalevris

School of Mechanical Engineering, National Technical University of Athens, 15780 Athens, Greece

Deadline for manuscript submissions

closed (25 March 2024)



Vehicles

an Open Access Journal by MDPI

Impact Factor 2.2 CiteScore 5.3



mdpi.com/si/34630

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

mdpi.com/journal/vehicles





Vehicles

an Open Access Journal by MDPI

Impact Factor 2.2 CiteScore 5.3



About the Journal

Message from the Editor-in-Chief

Editor-in-Chief

Prof. Dr. Mohammed Chadli

Department UFR Sciences and Technologies, Université Paris-Saclay, 91020 Evry, France

Author Benefits

High Visibility:

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

Journal Rank:

JCR - Q2 (Engineering, Mechanical) / CiteScore - Q2 (Automotive Engineering)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 22.1 days after submission; acceptance to publication is undertaken in 3.6 days (median values for papers published in this journal in the first half of 2025).

