Special Issue

Control of Electro-Hydraulic Systems

Message from the Guest Editors

Recently, there have been advances in the development of new control algorithms for electro-hydraulic systems due to widely available sensor systems and computing power. This opens new possibilities for predictive control and data-based optimization algorithms. These algorithms can improve the overall efficiency and precision of the systems while reducing maintenance and energy demand. Furthermore, mechanical deterioration can be detected, identified, and factored into the control based on the response of the system. This Special Issue aims to explore the research in the field of the control of electro-hydraulic systems. Papers on one or more of the following subjects are especially welcomed:

- Sustainable drives;
- Energy-efficient control;
- Predictive and precise control technologies;
- Data-based control algorithms;
- New sensors for electro-hydraulic systems;
- Fault prediction in electro-hydraulic systems;
- Intelligent control electro-hydraulic systems;
- Precise robust control algorithms;

Guest Editors

Prof. Dr. Marcus Geimer

Institute of Mobile Machines, Karlsruhe Institute of Technology KIT, 76131 Karlsruhe, Germany

Prof. Dr. Zheng Chen

The State Key Laboratory of Fluid Power and Mechatronic Systems, Zhejiang University, Hangzhou 310027, China

Deadline for manuscript submissions

closed (17 May 2024)



an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 4.7



mdpi.com/si/169156

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

mdpi.com/journal/

machines





an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 4.7



machines



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.

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

Author Benefits

High Visibility:

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

Journal Rank:

JCR - Q2 (Engineering, Mechanical) / CiteScore - Q1 (Control and Optimization)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.9 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).