# **Special Issue**

# Empowering Design and Production Automation with Data-Driven and Machine Learning Approaches

# Message from the Guest Editor

In today's f-paced technological landscape, the need for efficiency and adaptability in design and production cannot be overemphasized. Industrial and societal sectors struggle with fragmented knowledge and organizational silos. Modern production environments. especially ones relating automation, demand high levels of capital investment, and customized automations integral to operations are a notable financial obligation. Given their cost, it is imperative that the results of these investments operate efficiently and adaptably. With the convergence of massive data availability and advancements in machine learning (ML) techniques, industries are empowered to embrace novel paradigms in design and production automation. This Special Issue aims to present advanced research, applications, and trends in harnessing the potential of data-driven ML methods to enhance the realms of design and production automation. We invite authors from academia, industry, and research institutions to contribute original research articles and review papers that reflect the state of the art and emerging developments in this interdisciplinary domain.

#### **Guest Editor**

Dr. Mehdi Tarkian

Department of Management and Engineering, Linköpings Universitet, SE-581 83 Linköpin, Sweden

# Deadline for manuscript submissions

15 September 2025



an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 4.7



mdpi.com/si/188131

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



# **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, Calcada 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).

