Special Issue

Assessing New Trends in Sustainable and Smart Manufacturing

Message from the Guest Editors

Operation technology, machinery, manufacturing processes and systems play a very important role in industry. Industry 4.0 is contributing significantly towards the integration of such technologies and systems in smart and sustainable manufacturing, and towards achieving the Sustainable Development Goals. Circular and carbon neutral economies require smart production systems which can be assessed and monitored throughout their whole lifecycle and across the entire supply chain. Typically, research tends to focus on a number of parameters at a time. Studies generally lack comprehensive assessments of how proposed systems and processes will impact the environmental and financial pillars throughout their whole lifetime, as well as how they will interact with internal and external social stakeholders. This Special Issue aims to explore the impacts of smart production systems on the three pillars of sustainability through one or more of the following areas:

- Circular and/or carbon neutral smart manufacturing processes/systems
- Techno-economic assessments
- Life cycle assessments
- Life cycle cost assessments
- Social life cycle assessments
- Resource assessments

Guest Editors

Prof. Dr. Benoit Eynard

Department of Mechanical Engineering, Université de Technologie de Compiègne, Roberval Laboratory - FRE CNRS 2012, CS 60319, CEDEX, 60203 Compiègne, France

Dr. Paul Refalo

Department of Industrial and Manufacturing Engineering, Faculty of Engineering, University of Malta, Tal-Qroqq, MSD 2080 Msida, Malta

Deadline for manuscript submissions

31 December 2025



Machines

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 4.7



mdpi.com/si/162689

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).

