Special Issue

Neural Networks Applied in Manufacturing and Design

Message from the Guest Editor

Artificial neural networks are transforming manufacturing and design by enhancing efficiency, accuracy, and innovation. In manufacturing, they enable predictive maintenance—analyzing machinery data to prevent failures, reduce downtime, and cut costs. They also improve quality control by detecting defects with high precision, ensuring consistency and reducing waste. In design, neural networks optimize components by analyzing process data and rapidly simulating design variations. This accelerates development cycles, especially in precision-critical sectors like automotive and aerospace. Additionally, they boost energy efficiency by streamlining production and improve supply chain management through demand forecasting and inventory optimization. This Special Issue invites contributions on neural network applications in manufacturing and design that enhance productivity, quality, innovation, and sustainability.

Guest Editor

Dr. Ignacio Martin-Diaz
Department of Electrical Engineering, University of Valladolid, 47011 Valladolid, Spain

Deadline for manuscript submissions

1 October 2026

Machines

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 4.7

mdpi.com/si/231347

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

mdpi.com/journal/machines

Machines

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 4.7

mdpi.com/journal/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 17.6 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the second half of 2025).