Special Issue

Machine Learning and Pattern Recognition for Biomedical Signals

Message from the Guest Editors

This Special Issue aims to collect recent research on promising and innovative technological and methodological applications of ML and PR to biomedical data, covering a wide range of subtopics. These include applications in a variety of health and pathological conditions, ranging from the early detection and prediction of diseases, more accurate diagnoses, continuous and real-time monitoring, and personalized treatments to prevention and decision support systems. Another field of interest is the integration of ML and PR approaches into wearable sensors, video analysis, and innovative technologies finalized to telemedicine solutions. Other key related challenges include data quality, the availability of large annotated datasets, and supporting model interpretability through explainable Al (XAI) techniques that could improve clinical acceptance and trust in predictive models applied to biomedical signals.

Guest Editors

Dr. Claudia Ferraris

Institute of Electronics, Computer and Telecommunication Engineering (IEIIT), National Research Council (CNR), 10129 Turin, Italy

Dr. Marco Ghislieri

Polito BioMed Lab and Department of Electronics and Telecommunications, Politecnico di Torino, 10129 Turin, Italy

Deadline for manuscript submissions

30 August 2025



Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.5



mdpi.com/si/231268

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

mdpi.com/journal/applsci





Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.5



About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo

Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

