Special Issue

Al-Based Biomedical Signal Processing—2nd Edition

Message from the Guest Editors

Artificial intelligence (AI) is spreading, and now influences all fields of healthcare. Typically used as statistical

methods, these Al-based innovative tools are also promising in the other steps of the biomedical signal processing blockchain. Al-based methods may find solutions to biomedical signal processing challenges by integrating sensors and acquisition systems, as well as preprocessing, characterizing, classifying, and interpreting biomedical signals. These solutions may be essential in all fields of healthcare. Thus, this Special Issue aims to collect original research papers and/or reviews on Al-based methods for biomedical signal processing. Main topics include, but are not limited to:

- Intelligent sensors, devices and instruments for
- biomedical signal acquisition;
- Al-based biomedical signal preprocessing;
- Machine learning for biomedical feature extraction and selection;
- Knowledge engineering for feature interpretation;
- Al-based clinical decision making in healthcare;
- Al-based precision medicine;
- Data analytics and mining for clinical decision support;
- Ethics of AI in healthcare.

Guest Editors

Dr. Agnese Sbrollini

Department of Information Engineering, Università Politecnica delle Marche. Via Brecce Bianche 12, 60131 Ancona, Italy

Dr. Aurora Saibene

Department of Informatics, Systems and Communication, University of Milano-Bicocca, 20126 Milano, Italy

Deadline for manuscript submissions

31 August 2025



Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.5



mdpi.com/si/228339

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)

