Special Issue

AI-Based Biomedical Signal and Image Processing

Message from the Guest Editor

This Special Issue explores cutting-edge AI technologies for biomedical signal and image processing, addressing critical challenges in healthcare diagnostics and monitoring. We particularly welcome contributions on topics that include, but are not limited to, the following:

- **Deep Learning Architectures for Medical Image Analysis**
- **Explainable AI Methods for Healthcare Applications**
- **Multimodal Fusion Techniques for Integrated Diagnosis**
- **Federated Learning for Privacy-Preserved Medical Data Analysis**
- **Low-Resource and Edge Computing Solutions for Healthcare**
- **AI-Enhanced Biosignal Processing for Continuous Monitoring**
- **Synthetic Data Generation and Data Augmentation for Medical Applications**
- **Few-Shot and Self-Supervised Learning in Medical Imaging**
- **AI for Treatment Planning and Response Prediction**
- **Clinical Validation and Implementation Studies**

Guest Editor

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Deadline for manuscript submissions

20 November 2025

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.

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