Special Issue

Applications of Machine Learning in Biomedical Engineering

Message from the Guest Editors

Biomedical engineering is experiencing a rapid transformation thanks to the integration of machine learning (ML), which has the potential to transform healthcare by improving the accuracy of diagnoses, optimizing treatments, and personalizing care based on patient characteristics. This can lead to a significant reduction in medical errors, better outcomes, and the greater efficiency of healthcare systems. ML techniques are already widely used. In medical image processing, deep learning algorithms detect and classify pathologies in radiology images, improving the accuracy and speed of diagnoses. In biomedical signal analysis, machine learning is used to interpret complex data such as electrocardiograms (ECG) and electroencephalograms (EEG), enabling a better understanding of cardiac and neurological diseases. In genomics and drug discovery, machine learning helps to identify new therapeutic targets and predict drug response, therefore accelerating the drug development process. Additionally, personalized medicine leverages machine learning techniques to create tailored treatment plans.

Guest Editors

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Deadline for manuscript submissions

closed (31 January 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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