



## Advanced Applications of Artificial Intelligence and Machine Learning in Biomedical Engineering

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### Message from the Guest Editors

Artificial intelligence (AI) and its different approaches, from machine learning to deep learning, have become an indispensable tool for the development of new developments in medical signal and image processing and analysis. However, advances in AI have been obtained that affect the field of Biomedical Engineering. In this Special Issue, some important topics are covered, such as the challenges currently open in the mathematical foundations of deep neural networks, the problems derived from data processing, the challenges still open related to clinical trials, smart hospitals, as well as ethical and procedural aspects.

Potential topics of interest include: Data Science in Biomedicine; Machine learning-based biosignal processing and analysis; Deep Learning in biosignal processing and analysis; Machine learning-based medical image processing and analysis; Deep Learning in medical image processing and analysis; Mathematical advances and practical applications of spiking neural networks; Challenges in clinical trial methodologies and evaluation; Challenges in models' benchmarking; Challenges in models' interpretability/explainability; Smart hospitals; Ethical considerations.

# Special Issue



## Editor-in-Chief

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## Message from the Editor-in-Chief

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