Special Issue

Applications of Artificial Intelligence in Healthcare, Biomedicine and Medical Informatics

Message from the Guest Editors

Artificial Intelligence (AI) is rapidly transforming healthcare and biomedicine, offering unprecedented solutions to long-standing challenges. This includes accelerating drug discovery by identifying potential compounds, enhancing medical imaging for more precise diagnostics, and enabling personalized medicine through tailored treatments based on individual data. AI also improves medical robotics for diagnoses, automates routine tasks for clinicians, facilitates biomarker identification, and optimizes hospital operations.

This Special Issue invites research addressing these complex issues (including AI applications) through theoretical advancements and practical implementations in areas focusing on, but not limited to, medical imaging, video medical analysis, robotics in biomedicine, non-invasive treatment, explainability of AI diagnoses, diverse AI algorithms in healthcare, AI-assisted drug discovery, life science research, data privacy, privacy-preserving data processing, and federated machine learning for healthcare.

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Message from the Editor-in-Chief

Algorithms are the very core of Computer Science. The whole area has been considered from quite different perspectives, having led to the development of many sub-communities: Complexity theory (limitations), approximation or parameterized algorithms (types of problems), geometric algorithms (subject area), metaheuristics, algorithm engineering, medical imaging (applications), indicates the range of perspectives. Our journal welcomes submissions written from any of these perspectives, so that it may become a forum for exchange of ideas between the corresponding scientific subcommunities.

Editor-in-Chief

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