

Special Issue

Digital Signal Processing for Healthcare Applications

Message from the Guest Editor

In the era of digital health and precision medicine, healthcare is shifting from traditional symptom-based diagnosis to data-driven, proactive health monitoring and disease management. Digital Signal Processing (DSP) lies at the heart of this transformation as a key interdisciplinary technology integrating electrical engineering, computer science, applied mathematics, and biomedical science. In addition, DSP supports portable medical devices, telemedicine platforms, and personalized healthcare systems, enabling high-quality medical assessment beyond hospital environments and improving healthcare accessibility.

By converting raw physiological signals into clinically actionable information, DSP bridges the gap between data acquisition and medical decision-making. With ongoing advances in digitalization, miniaturization, and artificial intelligence, DSP will continue to drive innovation, improve diagnostic accuracy, reduce healthcare costs, and enhance patient outcomes. This work focuses on DSP principles, methods, and practical implementations for healthcare applications, and we welcome original research contributions in this field.

Guest Editor

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