

Special Issue

Generative AI for Biosignal and Medical Imaging Analysis

Message from the Guest Editors

Generative artificial intelligence (AI) techniques are rapidly emerging as powerful tools for advancing both biosignal processing and medical imaging analysis. By leveraging deep generative models, researchers can now synthesize realistic biomedical samples, enhance image contrast, and bridge gaps in scarce or noisy datasets—paving the way for more robust, data-driven insights into human health and disease. Recent breakthroughs in variational autoencoders, generative adversarial networks, diffusion models, and physics-informed neural networks have already begun to transform traditional analysis pipelines, enabling patient-specific diagnostics, optimized image reconstruction, and accelerated clinical decision support.

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Editor-in-Chief

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