

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.

Guest Editors

Dr. Wei Peng

Dr. Tian Xia

Dr. Haoyu Chen

Dr. Yante Li

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Bioengineering
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
bioengineering@mdpi.com

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Editor-in-Chief

Prof. Dr. Anthony Guiseppi-Elie

Department of Biomedical Engineering, Texas A&M University, College Station, TX 77843, USA

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