

## Special Issue

# Emerging Trends in Generative-AI Based Audio Processing

### Message from the Guest Editor

Generative AI continues to transform audio processing through rapid advances in deep learning, signal modeling, and interdisciplinary applications. Beyond traditional domains like speech synthesis and music generation, research has expanded to include deepfake detection, audio watermarking, audio for embodied AI, and multimodal systems that integrate sound with text, vision, and haptic feedback. Meanwhile, emerging large-scale foundation models and novel architectures such as diffusion-based generators and transformer-based pipelines have presented new opportunities to synthesize and analyze audio in previously unattainable ways. This Special Issue aims to provide a comprehensive and forward-looking collection of innovative methodologies, theoretical advances, and real-world applications in generative AI for audio. We invite contributions spanning foundational research, rigorous evaluations, proof-of-concept prototypes, and production-level deployments to foster collaborative and multidisciplinary exchange among industry practitioners, academic researchers, and policymakers.

### Guest Editor

Dr. Rita Singh

Center for Voice Intelligence and Security, Carnegie Mellon University,  
Pittsburgh, PA 15213, USA

### Deadline for manuscript submissions

31 December 2025



## Electronics

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*Electronics*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[electronics@mdpi.com](mailto:electronics@mdpi.com)

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### Editor-in-Chief

Prof. Dr. Flavio Canavero

Department of Electronics and Telecommunications, Politecnico di  
Torino, 10129 Torino, Italy

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