

IEEE JOURNAL OF BIOMEDICAL AND HEALTH INFORMATICS

J-BHI Special Issue on “Ethical AI for Biomedical and Health Informatics in the Generative Era”

In recent years, the rapid advancements in artificial intelligence (AI) and machine learning techniques have revolutionized the field of biomedical and health informatics. These developments, particularly in the generative AI domain, hold immense potential for accelerating discoveries, improving diagnostics, personalizing treatment plans, and enhancing patient care. However, along with these opportunities come ethical, legal, and societal challenges that must be addressed to ensure the responsible and ethical deployment of AI in healthcare.

The "*Ethical AI for Biomedical and Health Informatics in the Generative Era*" aims to provide a comprehensive platform for researchers, practitioners, and policymakers to share their insights, methodologies, and case studies that explore the responsible development, deployment, and regulation of AI technologies in the biomedical and health informatics domain. This special issue welcomes original research articles, reviews, case studies, and opinion pieces that shed light on various aspects of responsible AI, including but not limited to:

- Ethical considerations in generative AI for biomedical applications
- Transparency and interpretability of AI models in healthcare
- Fairness and bias mitigation in AI-driven healthcare systems
- Privacy and security challenges in AI-enabled health informatics
- Regulatory frameworks and guidelines for AI-based medical devices
- Human-AI collaboration for clinical decision support
- Real-world applications and case studies of responsible AI in healthcare
- Patient and clinician perspectives on AI adoption in medicine
- Socio-economic implications of AI-driven healthcare technologies
- Education and training for building responsible AI solutions in healthcare
- Integration of AI and biosensors for real-time health monitoring
- Biosensor data analytics and AI-driven insights
- Ethical and privacy considerations in AI-assisted biosensor applications
- AI-enhanced biosensor technologies for early disease detection
- Biosensor-guided AI interventions in personalized medicine
- Challenges and opportunities in integrating AI with wearable biosensors

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