

IEEE JOURNAL OF BIOMEDICAL AND HEALTH INFORMATICS

J-BHI Special Issue on “AI-enabled Connected Health Informatics”

Today, on the one hand, software frameworks for deep-learning are becoming increasingly capable of training advanced neural-network models, while on the other hand, heterogeneous hardware components such as GPUs, FPGAs and ASICs which are dedicated to deep learning are beginning to challenge the computational limits of Moore’s law. Together, these trends have influenced connected health systems, which comprise various processes for sensing, data transfer, storage and informatics to improve overall health and wellbeing. Increasingly, each of these processes are being infused with artificial intelligence (AI), leading to unprecedented advances in how automated care is being delivered.

The goal of this Special Issue is to publish the latest research advancements in all aspects of connected health and informatics systems where AI has been evident, including sensing, transfer, storage and analytics of biomedical data. This Special Issue also provides an opportunity for submissions that capture the end-to-end view of solutions that use automated informatics to address single or multiple scenarios of health engineering such as preventive care, prognostic and assistive care, hospital care delivery, home care and occupational health. Only unpublished original articles will be accepted.

Topics include but are not limited to:

- Theories, models and AI tools that help optimize and operate health facilities, services and processes
- Automation in assistive robots and equipment for long term and unobtrusive monitoring
- AI techniques applied to sensing, transfer and storage of biomedical data
- Distribution, storage and sharing of biomedical data for healthcare automation
- AI infused connected health and imaging informatics
- Systems that use AI to address existing and novel clinical applications
- Efficient design of AI algorithms for bioinformatics in the cloud and on the edge
- Intelligent process in preventive care and remote medicine
- Automation in pharmaceutical care, management and healthcare logistics
- Data-driven system engineering-based methodologies and practices in health engineering

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Key Dates

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