

Tentative Outline

Special/Thematic Issue for The Open Biomedical Engineering Journal

Applications of Advanced Computing Solutions for Healthcare Systems – Part 3

Guest Editor: Dr. Sivakumar Rajagopal

Co-Guest Editors: Dr. Sujatha Rajkumar, Dr. Siva Kumar Subramaniam, Dr. Rahul Soangra

Scope of the Thematic Issue:

Soft computing solutions integrate the Internet of Medical Things (IoMT), Mobile Computing, Medical Image Processing, Biosignal Processing, Network Security, cryptography, and Cybersecurity for healthcare applications. Soft computing-based services are widely used in the healthcare industry for disease diagnosis and prediction, health data analytics, drug discovery and development, etc. The system integration of various soft computing technologies with emerging IoMT-based blockchain technology has substantial potential for improving remote patient health monitoring, decision-making, and critical healthcare data security. However, soft computing solutions will resolve several issues, such as the severe limitations of data necessary to improve user compliance. These issues include resource constraints, transmission reliability, security, and interoperability between different platforms.

In addition, there are many challenges, like integration of healthcare systems with mobile platforms, real-time connectivity over heterogeneous networks, security, privacy, and others. Our current healthcare system's ability to cope with the current situation is mainly dependent on advanced health technology, such as telehealth, chatbots, artificial reality (AR), virtual reality (VR), and artificial intelligence (AI), to build a patient-centred, secure healthcare system.

This thematic issue focuses on recent developments in computing solutions for integrating AI, machine learning models, medical image processing techniques, advanced network security methods, blockchain, AR/VR, and chatbots to build an efficient healthcare system, which is leading to a new, promising, and secure healthcare system. This issue aims to bring together researchers and practitioners to address several kinds of research and achievements in healthcare systems, intelligent healthcare and remote monitoring applications.

Keywords: Soft Computing, Internet of Medical Things, Mobile Computing, Medical Image Processing, Bio-signal processing, Block chain for health-care data security, AR/VR methods

Sub-topics:

- Internet of Medical Things in Healthcare
- Mobile Computing Solutions in Healthcare
- Medical image processing techniques for Healthcare
- Biosignal processing techniques for Healthcare
- Artificial Intelligence (AI) based parallel computing environments in personalized health care systems
- Predictive analytics and AI human intelligence in IoMT based healthcare solutions
- Mobile app development techniques for healthcare solutions
- Smart wearable sensor design techniques for the healthcare system
- Data analysis and prediction techniques healthcare solutions
- Data mining and Machine learning techniques for healthcare solutions
- Modelling and Simulations of efficient healthcare systems
- Blockchain for distributed computing in healthcare
- Information Security
- AR/VR for future healthcare

Schedule

- Complete Thematic issue submission deadline: **01-11-2023**

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