

IEEE JOURNAL OF BIOMEDICAL AND HEALTH INFORMATICS

J-BHI Special Issue on “Internet of Medical Things (IoMT) Based Healthcare Informatics System, Emerging Techniques, Challenges, and Future Directions”

The Internet of Medical Things (IoMT) is an organization of wireless, interconnected, and smart medical smart devices. Which can collect and communicate sensitive information over the network without the intervention of human and computer system interaction. The IoMT promises several advantages to modernize and enhance the healthcare conveyance to proactively anticipate health issues and treat, diagnose, and observe patients in real-time in and outside the hospital surrounding. Globally, many governments and high decision-makers are executing new strategies to convey healthcare services using technology. Its aim is to respond to new healthcare issues such as the novel COVID-19 pandemic. It is now becoming essential to understand how conventional and upcoming IoT technologies may assist health systems in providing safe and effective care for human beings.

To offer reliable and effective healthcare services with various medical IoT policies is one of the key challenges faced in healthcare applications. Industries still repetitively utilize their trademarked protocols for tackling these smart devices. This can cause issues, particularly when collecting huge amounts of data from medical servers.

Moreover, connectivity concerns persist, as data collecting by smart devices such as cell phones can be disrupted by a variety of elements in the environment. To address these issues, the IoMT-based healthcare system has excessive capabilities to enhance the reliability and effectiveness of the modern healthcare system.

This Special Issue aims to highlight the most recent innovative work in the IoMT and WBANs system, which have the potential to provide reliable, secure, inconspicuous, and continuous QoS healthcare monitoring and well-organized healthcare services.

The topics of this Special Issue include, but are not limited to the following:

- ❖ □Recent trends in IoMT and WBANs in healthcare informatics system.
- ❖ □Contemporary IoMT healthcare informatics monitoring models.
- ❖ □Issues in data communication, incorporation, and analysis in IoMT Healthcare informatics system.
- ❖ □Modern AI based WBANs healthcare monitoring system .
- ❖ □The privacy, reliability, and security solutions regarding sensitive healthcare informatics system.
- ❖ □Fault-Tolerance in IoMT in healthcare informatics system.
- ❖ □Robust Network design and connectivity issues in IoMT based healthcare informatics system.
- ❖ □Fog computing, Edge computing and Fuzzy logic-based solutions in the healthcare informatics system
- ❖ □The integration of IoMT devices with other emerging technologies.
- ❖ □IoMT and WBANs integration for healthcare and other emerging applications.
- ❖ □IoMT and WBANs and current Covid-19 pandemic healthcare informatics system.

Guest Editors

Ali Kashif Bashir, Manchester Metropolitan University, UK, a.bashir@mmu.ac.uk

Chrysostomos Chrysostomou, Frederick University, Cyprus, ch.chrysostomou@frederick.ac.cy

Gulzar Mehmood, IQRA National University, Pakistan, gulzar.mahmood@uom.edu.pk

Key Dates

Deadline for Submission: 31 Oct, 2024

First Reviews Due: 05 January, 2025

Revised Manuscript Due: 01 Feb, 2025

Final Decision: 01 March, 2025