

IEEE JOURNAL OF BIOMEDICAL AND HEALTH INFORMATICS

J-BHI Special Issue on “Artificial Intelligence and Internet of Medical Things (AI-IoMT)”

The IoMT comprises a network associated with various kinds of health devices and sensors including but not limited to blood pressure, image digitizer, oxygen monitor devices, vital sign sensing devices, modems, display, storage devices, and networks of communication. Traditional IoMT comprises of devised used to aggregate data from the patients. However, still, the room is left to efficiently predict the future of the diseases using artificial intelligence (AI), e.g., early detection of COVID-19, pneumonia, arrhythmia classifications, etc. In addition, a patient residing remotely needs efficient data communication so that the patient can be treated automatically with minimum delay. Therefore, the 5G aptitudes are a radical addition of the band that is 100 times faster than 4G. Modern healthcare has been boosted due to the reduced latency, high-speed Broadband convergence, and higher aptitude. Social care and sustainable health are significant components of society. Smart healthcare and social care agendas require to be industrialized and reinforced in a way that will mollify today’s residents and coming generations’ demands. Enormous amounts of data are produced every day from personnel records, IoMT devices, social networks, the IoT, businesses, and the Internet infrequent measures and layouts. This surely postures a key test to the productivity of existing infrastructures and systems. Besides, the practical challenges of the IoMTs in smart healthcare comprise (a) dropping cost for a stable facility to realize the financial sustainability, (b) ahead adequacy of the patients to gain social sustainability, (c) reducing the release of lethal gases to achieve the environmental sustainability (d) predicting futuristic response based on the data collection using AI techniques. The advancement of IoMT using AI-based public medical care devices is a challenging task. Also, various challenging is available in planning and creating wise medical services devices; there is a prompt need to resolve this issue by proposing inventive public medical services systems and brilliant public medical care devices which can offer calculation and handling of clinical sensor information, move the expected undertakings at the edge level, and fulfill the current needs of savvy medical services arrangements.

This special collection pursues to realize current expansions and disseminate up-to-date methods on IoMT-enabled smart healthcare fulfilling with social, financial, and environmental sustainability. All the papers will be assessed exclusively based on the exclusive contribution to the IoMT-enabled solutions for smart healthcare using AI systems. The manuscripts will be peer-reviewed by expert reviewers in a similar domain. Topics of interest include, but are not limited to, the following:

- IoMT-enabled chronic disease management using AI
- IoMT-enabled distant healthcare conforming financial sustainability using AI
- IoMT-enabled applications for COVID-19 like epidemic using AI
- IoMT-enabled mass surveillance in smart health to preclude pandemic spread
- Emergency health management in smart healthcare using AI
- Unobtrusive health monitoring with IoMT
- Socio-economic challenges of smart health using AI
- Internet of Health Things (IoHT)-based Big Data Analytics using AI
- Distributed Computing for Big Data in Smart Healthcare using AI
- AI-enabled remote Patient Monitoring using Big Data

Guest Editors

Dr. Abdellah Chehri, Université du Québec à Chicoutimi, Canada, achehri@uqac.ca

Dr. Xiaochun Cheng, Middlesex University London, UK, X.Cheng@mdx.ac.uk

Dr. Giancarlo Fortino, University of Calabria, Italy, giancarlo.fortino@unical.it

Dr. Gwanggil Jeon, Incheon National University, South Korea, gjeon@inu.ac.kr

Key Dates

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