

Special Issue on
Wearable Devices for Smart Healthcare

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The growing interest in health and wellbeing has caused a paradigm shift in the technological developments in wearable systems. Wearable systems are a popular and attractive choice in health care services as it offers personalized solutions to patients towards disease prevention, diagnosis, and treatment. In addition, health management systems have presented wearable device users with more comfort and experiences that are not currently offered by traditional healthcare products and services. According to Markets and Markets (2017), the worldwide mobile healthcare industry would rise from 63.4 billion dollars in 2013 to 90.4 billion dollars in 2022. Global smartwatch shipments hit 12.3 million devices in June 2019, up to 44 percent from 8.6 million units in June 2018, according to Strategy Analytics (2019).

Despite the rapid growth of the healthcare wearable devices market, different socio-economic classes and nations have different levels of socio-technical development, so the adoption of these devices and related technologies is varied. Digital wearables, which combine smart sensors, artificial intelligence (AI), the Internet of Things (IoT), big data, and medical bots can aid in ailment management and prevention. The system can identify risk indicators and other life-threatening circumstances in the elderly living in homes. The system also facilitates measuring heart rate, body temperature, blood pressure, and respiration rate. As a result, numerous businesses have developed wearables and smartphone apps to deliver various healthcare services, and this trend is likely to continue.

This Special Issue is aimed to disseminate knowledge in the area of wearable devices for health care and medical applications. The dissemination includes developments in the area of sensors for smart healthcare, communication architectures, signal processing algorithms, and implementation of prototypes, and testbeds.

Potential topics include but are not limited to the following:

- ▶ Wearable sensors
- ▶ Wearable IoT (WIoT)
- ▶ Cross-layer design and optimization
- ▶ Intelligent algorithms, data processing
- ▶ Wireless body area networks
- ▶ eHealth
- ▶ Health 4.0
- ▶ Health information exchange
- ▶ Interoperability in medical systems
- ▶ Privacy and security in sensor-enabled information exchange during clinical trials
- ▶ Secure and sustainable communication architecture.
- ▶ Datasets, measurement, and performance evaluation
- ▶ Internet of medical things
- ▶ Trust based protocols for healthcare
- ▶ Case studies for improving privacy using distributed ledger and block chain

Authors can submit their manuscripts through the Manuscript Tracking System at <https://review.hindawi.com/submit?specialIssue=567554>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

Lead Guest Editor

M A Bhagyaveni, College of Engineering, Chennai, India
bhagyavenima@gmail.com

Guest Editors

Carlo Massaroni, Università Campus Bio-Medico di Roma,, Roma, Italy
c.massaroni@unicampus.it

Saravana Jaganathan, University of Hull, Hull, UK
s.k.jaganathan@hull.ac.uk

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