

IEEE JOURNAL OF BIOMEDICAL AND HEALTH INFORMATICS

J-BHI Special Issue on “Medical information security and privacy solution for smart healthcare industries”

Due to smart healthcare system is highly connected to advanced wearable devices, internet of things (IoT) and mobile internet, valuable patient information and other significant medical records are easily transmitted over the public network. The personal patient information and clinical records are also stored on the existing databases and local servers of the hospital and healthcare centres. This information not only provide a reference for healthcare professionals to make correct decision on the patient, but also provide basis for other professionals to make effective treatment and develop future plans for correct diagnosis. Further, the databases may be used by various research communities for different directions of research, without the any possibility of privacy violations. However, stealing of healthcare data is growing crime every day to greatly impact on financial loss. In past few years, coronavirus pandemic has been declared as a global health emergency by the World Health Organization (WHO). In this period, large amount of collected data to combat COVID-19 pandemic raises many security and privacy concerns. Aiming to guarantee the security and privacy of patient record in the transfer process, the integrity authentication of them is extremely important. Therefore, proper medical information security is becoming equally important in smart healthcare.

Motivated by these facts, this special issue targets the researchers from both academia and industrial to explore and share new ideas, approaches, theories and practices with focus on information security and privacy solutions for smart healthcare industries.

Topics of interest include, but are not limited to, the following:

- Digital intellectual property protection technique
- Encryption of medical information
- Medical information hiding
- Blockchain technology for healthcare
- Healthcare Biometrics
- Medical information security and privacy schemes for modern health industries
- Security and privacy trends in the industrial IoMT
- Big data security and privacy in healthcare
- Cloud data security and privacy
- Cyber security in telemedicine
- Health data management
- Protection systems/ mechanism against patient identity theft

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