



AIUB DSpace Publication Details

Title	Internet of Things (IoT): A review of its enabling technologies in healthcare applications, standards protocols, security and market opportunities
Author(s) Name	Mohammad Nuruzzaman Bhuiyan, Mahabubur Rahman, Md Masum Billah, Dipanita Saha
Contact Email(s)	billah.masumcu@aiub.edu
Published	
Journal Name	IEEE INTERNET OF THINGS JOURNAL
Type of Publication	Journal
Volume	08 Issue 13
Publisher	IEEE
Publication Date	March 01, 2021
ISSN	1803-7232
DOI	10.1109/JIOT.2021.3062630
URL	https://ieeexplore.ieee.org/document/9365708
Other Related Info.	Page 10474 - 10498





AIUB DSpace Publication Details

Abstract

The Internet of Things (IoT) is a methodology or a system that encompasses the real world things to interact and communicate with each other with the assistance of networking technologies. This paper describes surveys on advances in IoT-based healthcare methods and reviews the state-of-art technologies in detail. Moreover, this review classifies an existing IoT-based healthcare network and represent a summary of all perspective networks. IoT healthcare protocols are analyzed in this context, and provide a broad discussion on it. It also initiates a comprehensive survey on IoT healthcare applications and services. An extensive insights into IoT healthcare security, its requirements, challenges, and privacy issues are visualized in IoT surrounding healthcare. In this review, we analyze security and privacy features consisting of data protection, network architecture, quality of services, apps development and continuous monitoring of healthcare that are facing difficulties in many IoT-based healthcare architecture. To mitigate the security problems, an IoT-based security architectural model has been proposed in this review. Furthermore, this review discloses the market opportunity that will enhance the IoT healthcare market development. To conduct the survey, we searched through established journal and conference databases using specific keywords to find scholarly works. We applied filtering mechanism to collect only papers that were relevant to our research works. The selected papers were then examined carefully to understand their contributions/research focus. Eventually, the paper reviews were analyzed to identify any existing research gaps and untouched areas of research and to discover possible features for sustainable IoT healthcare development.

