

Wearable health monitoring system (WHMS) using wireless sensor network

ABSTRACT

The development in technologies has taken place in many sectors such as the Wearable Health Monitoring System (WHMS). It has been a remarkable revolution by the emerging of the Wireless Sensor Network (WSN) in performing the monitoring and recording of healthcare. Thus, the wearable wireless sensor based systems are intended to provide better personal health management, ubiquitous monitoring health condition, better quality treatment and care, along with to allow efficient circuit integrations, reliable vital signal measurements, low operation costs and optimum power usage. This paper therefore attempts to comprehensively review the basic concepts of Wearable Health Monitoring System (WHMS) using Wireless Sensor Network (WSN). A comparative study was carried out in various healthcare monitoring systems, which adapted different wireless technology. In addition, the challenges and limitations of WHMS systems are identified. The implication of this study is to minimize the challenges and limitations in the design, development and application of a wearable wireless sensor based systems. It is expected in the future that the information shared in this paper can serve similar scientific field and improve the system features.

Keyword: Wearable health monitoring system (WHMS); Wireless sensor network (WSN); Wireless wearable health monitoring system (WWHMS); Wireless local area network (WLAN); Wireless personal area network (WPAN)