Abstract

People around the world often neglect health issues because of the difficulties in obtaining care (in terms of time, cost, and effort) as part of an effective healthcare plan. Healthcare is especially costly for congenital heart defect patients since they must regularly visit hospitals for check-ups. This paper presents a monitoring system for children diagnosed with congenital heart defects (CHDs) that enable remote monitoring and provides feedback to parents in order to detect potential risks earlier. This system adapted the Internet of Things (IoT) technology to read and to monitor children's vital signs and then transfer them to an iOS phone application. The application provides parents with their child's vital sign history. In addition, it classifies the child's case as normal or abnormal using a rule-based classifier. In a case of emergency, parents can call an emergency number. Therefore, this system can reduce the efforts of parents and children while also providing needed healthcare. Users were easily able to use the application to monitor their children. The only struggle was with the medical sensors.
References


**Index Terms**

Computer Science  
Biomedical

**Keywords**

Internet of things, rule-based classifier, congenital heart disease, monitoring system for children, IOS phone application.