LITERATURE REVIEW ON IOT BASED SAFETY GADGET FOR CHILD SAFETY MONITORING AND NOTIFICATION

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Paper 1:

Title: Child Monitoring and Safety System Using Wsn and Iot Technology

Authors: P.Poonkuzhlai, R.Aarthi, Yaazhini.V.M, Yuvashri.S, Vidhyalakshmi.G

Publishing Details: Annals of R.S.C.B., ISSN:1583-6258, Vol. 25, Issue 4, 2021, Pages. 10839 - 10847

Abstract: This paper presents the design and implementation of a portable IOT-based safety and health monitoring system for children through a sensor embedded health monitoring device for safety and emergency services. It is known that the technological advancements are increasing at a faster pace. But the utilization of technologies in various sectors is very low. We know that people of different age group faces different difficulties. But the security for children‟s is very low. There is lot of cases registered regarding child safety. Nowadays, the schools and the parents are very much worried about their school children‟s for school transport and other places. So, the safety and monitoring the school children is very much difficult. In this project we are introducing the IOT based embedded system is used in this project. So we propose a system to continuously monitor the parameters of the child and also their location for safety purpose. The system provides smart child tracking and monitoring system.

Advantage:

These technological advancements are increasing at a faster pace.

Disadvantage:

The utilization of technologies in various sectors is very low.

Paper 2:

Title: Survey on Child Safety Wearable Device Using IoT Sensors and Cloud Computing

Authors: Prakriti Agarwal, R Ramya, Rachana Ravikumar, Sabarish G, Sreenivasa Setty

Publishing Details: International Journal of Innovative Science and Research Technology, Volume 5, Issue 2, February – 2020, ISSN No:-2456-2165

Abstract: Child safety is a major concern in any society due to the vulnerability of a child and consequently, higher rates of crimes against children. With this issue on our hands, a smart wearable Internet of Things sensor network for monitoring the environment of a child can be developed to help parents ensure the safety of their children. It must also necessarily include a mechanism for tracking the child. An advantage of this wearable device is that, according to its design, it can be accessed from any mobile device and does not mandate a lot of technical knowledge from the user to operate. The purpose of this device is to facilitate the guardian or parents in locating their child with ease and ensuring its well-being. The basic mechanism of this system involves monitoring the environment through sensor nodes, acquiring real-time data and transmitting this data to a cloud server. The data can be accessed by users through a web-based interface present on this cloud server. The wearable also functions to send alerts to the user through a mobile application in case an emergency condition is detected by it. The design of this model involves developing a medium for communication between the parent/guardian and the child's wearable device. The child's location is tracked using GSM mobile communication to specify the location of the child in real-time. We have surveyed relevant papers and have discussed about the different methodologies that have been used to achieve similar but different results. We later also compare these papers using their advantages and disadvantages and we try to bring out the uses from their results.

Advantage:

An advantage of this wearable device is that, according to its design, it can be accessed from any mobile device and does not mandate a lot of technical knowledge from the user to operate.

Disadvantage:

A major drawback of this system is that it provides accurate results only with high internet connection.

Paper 3:

Title: IoT-based Child Security Monitoring System

Authors: Lai Yi Heng, Intan Farahana Binti Kamsin

Publishing Details: Proceedings of the 3rd International Conference on Integrated Intelligent Computing Communication & Security (ICIIC 2021), Atlantis Highlights in Computer Sciences, volume 4

Abstract: Nowadays, crime rate associated with children keeps increasing due to which draws peoples' attention regarding child safety. This research is conducted to propose a child security smart band utilizing IoT technology. Online questionnaire and semi-structured interview are methodologies used to collect data. The online questionnaire gains feedbacks by sending questions electronically, where answers need to be submitted online. In the semi structured interview, researcher meets and asks respondents some predetermined questions while other being asked are not planned in advanced. Through information obtained, a smart band have

been proposed to monitor the safety of children. By this, parents know what is happening remotely and can take actions if something goes wrong. The future improvements of this device will be adding functions and software to make it works like a phone such as messaging, gallery, Google, YouTube, meanwhile, adding more child security features so that child safety is guaranteed.

Advantage:

Parents know what is happening remotely and can take actions if something goes wrong.

Disadvantage:

The proposed device is not robust enough and does not contain sufficient functions to operate like a mobile phone.