LITERATURE SURVEY

DOMAIN : Internet Of Things(IoT)
PROJECT : IoT-Based Safety Gadget for Child Safety Monitoring & Notification

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ABSTRACT:

In today's world children are less secure and have many issues concerning their security purpose. More family's spent their time for work and social accountability but since Children are gifts of GOD they need the care of family. The current status of our country is not habitable for monitoring children in school. With the absence of a child monitoring system, it is hard to monitor the whereabouts of children. Underage children may be impulsive in the way they act and in places to be. Most of the human behaviour is shaped in the childhood stage, in order to get morally acceptable behaviour child monitoring system is necessary. Children are prone to many accidents. The safety of children is very indispensable as children cannot protect themselves.

The main goal of this project is to create a smart wearable device for children that uses refined technology to assure their safety. The paper provides a smart solution for deflecting losing kids while going out alone or with their parents based on the Internet of Things(IoT). Our proposed strategy ensures utmost security and ensures live tracking for their kids. This paper proposes a model for child safety through smartphones that can track their children's location and give the precise coordinates of the child's location in real-time anywhere. By monitoring the activities the security state of the child is examined.

INTRODUCTION:

The Internet of Things (IoT) plays a vital role in day-to-day life. The major difference between IoT and the embedded system is that a dedicated protocol/software is embedded in the chip in the case of an embedded system, whereas, IoT devices are smart devices, which are able to seize decisions by sensing the environment around the device. The Internet of Things is increasingly finding a place at the heart of many business automation strategies. Companies

are using sensors in the logistics chain to help them track where delivery is with extraordinary accuracy.

The motivation for this wearable comes from the increasing need for safety for little children in contemporary times as there could be scenarios of the child getting adrift in a major crowded sector. This paper focuses on the key aspect that a missing child can be assisted by the people around the child and can play a remarkable role in the child's safety until reunited with the parents. If any deviant readings are disclosed by the sensor, then an SMS and phone calls are set off to the parent's mobile. Also, it overhauls the parental app through the cloud.

The technique is equipped with GSM and GPS modules for sending and receiving calls, and SMS between the safety gadget and the parental phones. The system also consists of a Wi-Fi/cellular data module used to implement IoT and send all the monitored parameters to the cloud for android app monitoring on the parental phones. The panic alert system is used during panic situations alerts are sent to the parental phone, seeking help also the alert parameters are updated to the cloud. Most of the wearables available today are focused on providing the location, and activity of the child to the parents.

LITERATURE SURVEY:
{1} Authors: Zambada J,Quintero R,Isijara R,Galeana R (2015)
Using the paradigm of IoT, the proposed sensors send data about the location to the Internet through a broker, as well as billions of objects in the world are sending their own data to the Internet.
{2} Authors: M Nandini Priyanka, S Murugan.
The parent can send a message to the GSM module, according to the message information the GSM module replies back with particular details about the children. The location can be seen on Google Maps. When a particular child is facing an emergency situation, the device button should be pressed so that the device captures the image along with the user information to the enrolled mobile numbers. The life of the child can be saved within no time.
{3} Authors: K N H Srinivas, T D S Sarveswara Rao, E Kusuma Kumari.
From the children's point of view GPS, GPRS and GSM are used to monitor the speed and location tracking purpose. The system is fixed on the bus or car or in any vehicle so that the vehicle is going on a routine route or not can

be identified by the GPS tracker, and the speed of the bus can also be extracted. Nowadays digital technology plays a major role in connecting people via the internet. For tracking the children, the android-based solution is provided to parents. Internet is the one that will connect different components through a single device and is connected to the server. Parents track their children in real time with the location tracker by GSM.

{4} Authors: Khushalsing Rajput,Ankur Chavan.

Some of the existing works done on these similar lines are for example the low-cost, lightweight Wristband Vital which senses and reports hazardous surroundings for people who need immediate assistance such as children and seniors. The major drawback of the Vital band is that it uses Bluetooth as the mode of communication between the child and the parent. Since the distance between the two in some cases could be substantial and the Bluetooth just won't be able to establish a close link between the two. Hence this system combines both GPS and GSM technology to provide a hand in such situations. The GPS is used for identifying the location and GSM is used for sending them a message

{5} Authors: Omkar Tanawade, Swapnil Sonawane.

The absence of an information system which could display conditions, actual activity, and annual reporting of kindergarten students in a platform which could be accessed easily anywhere and anytime has led to a major block in the coordination of students, parents, and teachers. One of the most difficult technical implementations is how to compile and display the updates of children's position in a fast (near real-time) duration while accessed from outside communication.

CONCLUSION:

The System put forward this paper to ensure the safety of children and increase their confidence. Many experimenters are operating in this area and have formulated different technologies to aid children. The key represented in this paper takes the advantage of smartphones which proposes affluent elements like Google maps, SMS, etc. The child safety and protection device is proficient in acting as a smart IoT device. It equips parents with real-time location, the surrounding temperature, and along with an alarm buzzer for their child's circumstances and the capability to locate their child. This paper depicts the fundamental design concept and functionality along with the anticipated consequences.