Literature Survey

PROJECT TITLE: Iot Based Safety Gadget for child safety monitoring and notification.

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PROJECT DESCRIPTION

These days, crimes happen frequently. Children can also be affected by this scenario; it does not just apply to adults. Parents worry more about terrible crimes like kidnapping, rape, and missing children. Newspapers have reported on the crime that also involved schoolchildren. Even though the school has guards on duty around the clock, it is just insufficient to keep an eye on the students. The approved must provide additional security measures to address these issues. "Some parents may not have the option to drop off or pick up their kids at school. Parents typically have complete faith in their children to arrange their own travel. These youngsters would have to commute by bus, bicycle, or foot. Children who go by themselves to and from school without parental supervision are vulnerable to risk on the road". In addition, parents typically learn about their children's mishaps or involvement with criminal activity after the fact. Teachers and school administrators hold back their students until they arrive at class. They squander a lot of time as a result.

Development The use of IoT-based child monitoring in schools will assist parents in reducing their concerns. The system requirements for monitoring the youngster and outlining the feature implementation. If a low accuracy GPS is utilized in this system, a high accuracy GPS is needed to implement the system. The system can display an error for that child's location. In this system, we send the message TRACK to the device, and the GPS of that device sends the longitude and latitude to the GSM module. Once the GSM module receives the information about the longitude and latitude of that child's location, this message is sent to the user in order to track the lost child's location.

TOOLS USED/ALGORITHM

This system's whole operation is controlled by a tiny micro controller called an Arduino. The notion for creating a user-friendly, high-accuracy, low-cost system using Google Maps is presented in this paper. GPS accuracy can be increased with Google Maps. In this essay, research on the Child Tracking System is presented using Google maps. The excellent accuracy of Google Maps is evidence of improvements. In order to assist parents in finding and keeping an eye on their kids, a smart Internet of Things (IoT) device for child safety and tracking has been developed. The system is made with a Link It ONE board that has embedded C programming and is interfaced with temperature, heartbeat, touch, GPS, GSM, and digital camera modules.

Methodology

- Live Location Tracking
- Panic Alert System
- Stay Connected Feature
- Health Monitoring System
- Boundary Monitoring System

ADVANTAGES & DISADVANTAGES

ADVANTAGES

- It gives safety for the individual and improves security.
- We can spend less time on tasks by automating them.
- Even though we are far from our actual location, information is still readily available and constantly updated.

DISADVANTAGES

- They rely heavily on the internet and are unable to function effectively without it.
- Personal data could be stolen from the system by hackers. There is a chance that our information may be exploited since we connect so many devices to the internet.
- Deploying IoT devices is very costly and time-consuming.
- It is very difficult to plan, build, manage, and enable a broad technology to IoT framework.

CONCLUSION:

This study shows how smart IoT devices can be used to track and protect children while also assisting parents in finding and keeping an eye on them. SMS and phone call are sent to the parents' mobile phones if the sensor detects any unusual readings. Additionally, a cloud-based update to the parental control app. The system has GSM and GPS modules that allow calls and SMS to be sent and received between the safety device and the parent's phone. In order to integrate IoT, the system also includes a Wi-Fi module that transmits all of the observed parameters to the cloud for parental phone android app monitoring. When a panic attack occurs, a panic alert system is utilized to send notifications to the parent's phone and update the alert settings to the cloud.