

IOT Based Safety Device for Child Safety and Monitoring

Abstract

With the rising statistics of traffic accidents and child abduction, there is a need for a robust system that enables constant tracking for a specific child by their specific parent who are on their way commuting from and to schools. These things are possible with the help of emerging of Internet of Things (IoT) technology, developing such system becomes feasible. This system provides complete visibility children tracking. In this paper, we propose a complete low-cost design and implementation of an IoT based system that allows parents and to track the movement of the children during their absence in home or when the children is at school or daycare, which guarantees comfort for parents and safety for children. The system is based on, a GPS and a GSM module. The data from the device is stored in a cloud database for the parents to access through a mobile application. We develop the mobile application with secure login admin access, which only the parents can access.

Introduction

As we know that the population of the urban areas are increasing day by day so along with that unemployment is also increasing and this give birth to the dirt of the society that is the crime. So, to live in such an environment we are always worried about our loved once and for their wellbeing. This project is basically for tracking children and help them if they are in some kind of trouble and monitor their location and well-being. So, we want to feel safe and with that we also want to protect our loved ones. That's why we have developed this project to track or to

keep an eye on our loved ones. India's population is estimated to be around 133.92cr and ranked number 2nd in the list of World countries population. Furthermore, the percentage of school students is calculated to be around 21.2%, which translates to roughly 28.25 cr children that go to school 5 days a week for more about thirty weeks around the year. According to NHR (National Human Rights Commission of India) every year around 40,000 children are abducted. On the other hand, this means every day, fleets of school buses fill up the roads delivering children to schools in morning time and back home at noon, which means larger carbon footprint, more traffic jams and lost time in the roads. To secure our children we have to always keep an eye on them. Considering all this we have developed this project.

Literature Survey

A. Track and Monitor the Child with Precise Location Tracking

It is a IOT based project and their approach is the child's location and alert the parent if the child leaves the preset location barrier. Our goal is to track and record the child's location data through the cloud platform and allow the parents to access the child's location database through a mobile app.

B. Monitored by the Parent far away from their Child

Children's security has always been a priority problem whose solution must constantly be improved. As we know now a days the crime rate in the city is rising day by day so the people are concern about their life as well as their loved once. There are many different papers published about the technique or the system to keep track on their child and this is one of that paper. To know if our child is safe so we are keeping track of the location database and notify parents about the location as "Child is on the way from school", "Child has reached home", etc. We can get continuous

notification about the activities and the location of the child that is far away from them. Efficiently tracking capabilities is tested in children's tracking and monitoring during their trip to and from school.

C. FUTURE SCOPE

In future we can add Camera Module for live monitoring and Face detection. We can also plan to apply the same access control system for school entrance monitoring and attendance in terms of monitoring from the school's system.