IOT BASED SAFETY GADGET FOR CHILD SAFETY MONITORING & NOTIFICATION

ABSTRACT:

This is a project based on IOT (Internet of Things).As we all know, kids are the heartbeat of every parent and when it comes to a child with special needs, parents have to be extra careful. They have to take extra care of their child. Child tracker helps the parents in continuously monitoring the child's location. They can simply leave their children in school are park and create a geofence around the location. By continuously checking the child's location notification will be generated if the child crosses the geofence. Notifications will be sent according to the child's location to their parents or caretakers. The entire location data will be stored in the database. Child can also initiate emergency notifications to the parents incase of unsafe situation. The GPS coordinates of the child will be sent to the IBM IoT platform. The web application will be developed using Node-RED service to integrate geofence and google map. Location can be viewed in the Web Application. A parent can create a geofence in the web application. The web application will check if the child is inside or outside the geofence. Notifies the parents if the child goes out of the geofence. A cloudant databse is created to store all the related data. A smart band is created which comprises of GPS and GSM module.

LITERATURE SURVEY:

[1] Smart IOT Device for Child Safety and Tracking: M Nandini Priyanka, S Murugan, K N H Srinivas, T D S Sarveswararao, E Kusuma Kumari.

Child safety and tracking is a major concern as the more number of crimes on children are reported nowadays. With this motivation, a smart IoT device for child safety and tracking is developed to help the parents to locate and monitor their children. The system is developed using LinkIt ONE board programmed in embedded C and interfaced with temperature, heartbeat, touch sensors and also GPS, GSM & digital camera modules. The novelty of the work is that the system automatically alerts the parent/caretaker by sending SMS, when immediate attention is required for the child during emergency. The parameters such as touch, temperature &heartbeat of the child are used for parametric analysis and results are plotted for the same. The above system ensures the safety and tracking of children.

[2] IoT Based Smart Gadget for Child Safety and Tracking: N. Manjunatha , H. M. Jayashree , N. Komal , K. NayanA

This paper is mainly streamed towards child safety solutions by developing a gadget which can be tracked via its GPS locations and also a panic button on gadget is provided to alert the parent via GSM module calling for help. Parental android app is developed to manage and track the device anytime. Smart gadget device is always connected to parental phone which can receive and make phone calls and also receive SMS on gadget via GSM module, also a wireless technology is implemented on device which is useful to bound the device within a region of monitoring range, if device is moving out of monitoring range then an alert will be triggered on binding gadget, this helps you keep a virtual eye on child. Health monitoring system on gadget checking for parameters like heart beat/pulse rate and temperature is included which can be monitored on parental app. Gadget also monitors whether it is plugged on hand or not using contact switch and alert the parent as soon as it is unplugged.

[3] Child Safety Monitoring System Based on IOT:N.Senthamilarasi, N.Dhivya bharathi, D. Ezhilarasi and R.B.Sangavi.

The overall percentage of child abuse cases filed nowadays in the world is about 80%, out of which 74% are girl children and the rest are boys. For every 40 seconds, a child goes missing in this world. Children are the backbone of one's nation, if the future of children was affected, it would impact the entire growth of that nation. Due to the abuse, the emotional and mental stability of the children gets affected which in turn ruins their career and future. These innocent children are not responsible for what happens to them. So, parents are responsible for taking care of their own children. But, due to economic conditions and the aim to focus on their child's future and career, parents are forced to crave for money. Hence, it becomes difficult to cling on to their children all the time. In our system, we provide an environment where this problem can be resolved in an efficient manner. It allows parents to easily monitor their children in real time just like staying beside them as well as focusing on their own career without any manual intervention.

[4] Child Monitoring and Safety System Using Wsn and Technology:P.Poonkuzhlai,R.Aarthi ,Yaazhini.V.M , Yuvashri.S , Vidhyalakshmi.G

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.