IOT BASED SAFETY GADGET FOR CHILD SAFETY MONITORING AND NOTIFICATION

BATCH -B11-5A1E

Idea 1(SYED WAHAJ S):

- Our proposed system is based on the Internet of Things-based Smart Child Safety Wearable Device System designed as an efficient and low-cost IoT based system for monitoring infants in real-time.

- This system plays a key role in providing better care for the lost children until they reconvene with the parents. In this present era, most of the wearable devices today are designed based on the location , activity , temperature, pressure, etc of the child and inform the parents via GPS.
- Therefore it is intended to use voice call as the way of communication between the parent mobile and child's wearable device. The system operates on the microcontroller board and the functions of sending and receiving notifications, calls, voice messages via GPS.

IDEA 2(SARAN S):

- Our project child tracker helps the parents in continuously monitoring the child's location. They can simply leave their children in school or parks and create a geofence around the particular location. By continuously checking the child's location notifications 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.
- Here we can also notify the child's location to the near by police station by attaching the emergency number of the corresponding police station to the gadget. So that the police can take action immediately.

IDEA 3 (SHABNA R):

- Our project focuses on monitoring children by wearable sensors attached either to the kid or to their belongings. Vibration sensor and heartbeat sensor are used in addition to GPS (to track their location 24/7).
- We have also added a Push Button to check whether the child is wearing the sensors or not. A keypad is attached so that we can type any contact number to which messages are sent in the time of emergency. The working of the product is that once the kid wears the product, the push button goes to ON state.

- Heartbeat sensor measures the heartbeat of the kid continuously. Vibration sensor senses the vibration if it exceeds the threshold level.
- GPS keeps track of the kid"s current location. This information is updated in the cloud server regularly, so that the parents can check their kid"s safety whenever they want by sign into their cloud account. In case of any emergency situation the device notifies parent about the state of their kid through an SMS.
- An android application is also provided, which fetches the details from the encrypted message received such as heartbeat value, vibration, status of push button, and location. The application also redirects us to Map to show the kid"s current location. The system sends messages to parents if the observed vibration level is too high, or if push button goes OFF.

IDEA 4(ADITH VISHNU G):

- **Invoxia's**

1.Invoxia's Cellular GPS Tracker looks more like a long USB drive than it does a tracking device. The blank housing has all of the hardware for LTE and GPS connectivity and a battery that can last up to four months.

- **Trakbond Trail**

1.The smartest real-time GPS tracker made using trailblazing technology, to keep your precious ones safe and secure when they are away from you.

2.1Small yet powerful, this smallest locator keeps you informed about your child’s whereabouts all the time.

- **Fami safe**

1.Track Your Child’s Online & Offline Activity

2.Sometimes, it’s not enough just to know where your children are. With the FamiSafe GPS tracker app, you can verify where your kids are at all times.

- **XPLORA2**

1.This device doesn’t require a SIM and costs roughly $170. There are no monthly fees to worry about. As long as your child has this watch on, you’ll be able to track their real-time location. Plus, you can create alerts for when your child leaves an area (like the park or a friend’s house).

IDEA 5(ABHISHEK BABU PS):

- **Mirco Hornet:**

The smallest GPS tracker on the market is the Mirco Hornet. The tiny GPS tracker developed by Origin GPS weighs only 2.5 gm.

- **Jiobit's Smart Tag:**

It's a small tracking device that clips onto a belt, but you can also use accessories to place the Smart Tag on your child at all times

- **Apple's AirTags:**

These are countless accessories to attach the small tracker to a jacket, backpack, or even slip it into a pants pocket.

- **SyncUP Kids Watch:**

The watch itself includes a camera, can send and receive messages, a task manager that a parent can add chores or other tasks to and similar functionality to what you'd find on a normal smartwatch.

- **Verizon Gizmo Watch:**

You'll get real-time tracking and geofence support so you can receive alerts based on your child leaving or arriving at a location.

IDEA 6(ARJUN VG):

Develop a prototype of IoT wearable smart band connected to parents' mobile apps so that they can monitor the actual condition of children at anytime and anyplace. Besides, unlike existing smart band, which is less focusing on child security aspect, the proposed system emphasizes in getting as much data as possible so that actual situation can be identified. , the information indicating children's status, along with reference values will be sent to parents' devices with the app installed. If children's actual data is not within the range of reference value, alert notification and some suggestions will be sent to parents' devices. Also, when children leave geofences, notification will be sent to parents' device.

ADVANTAGES:

- Easy Availability and Affordability
- Tracking of missing kids can be made easily
- It provides parents with the real-time location
- It is share the information to the nearest police stations.
- It provides a security to the children and secures the feeling of parents.
- Guarantees peace of mind for parents • Geofencing child's movements through APIs

DISADVANTAGES:

- It will affect the children's privacy .
- If the gadget gets lost somewhere then the location remains same
- If the gadget is damaged, it will not work