

IOT BASED SAFETY GADGET FOR CHILD SAFETY MONITORING AND NOTIFICATION

Batch - B2-2M4E

IDEA 1:

- 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 has the functions of sending and receiving notifications, calls, and voice messages via GPS.

IDEA 2:

- 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 signing into their cloud account. In case of any emergency the device notifies parents 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 3:

- **Trak bond Trail:**

- The smartest real-time GPS tracker is made using trailblazing technology, to keep your precious ones safe and secure when they are away from you.
- Small yet powerful, this smallest locator keeps you informed about your child's whereabouts all the time.

- **Fame safe:**

- Track Your Child's Online & Offline Activity
- Sometimes, it is not enough just to know where your children are. With the Failsafe GPS tracker app, you can verify where your kids are always.

- **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.

- **Jibito's Smart Tag:**

- It is a small tracking device that clips onto a belt, but you can also use accessories to always place the Smart Tag on your child.

- **Apple's Air Tags:**

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

- **Verizon Gizmo Watch:**

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

ADVANTAGES:

- Easy Availability and Affordability
- It is sharing the information with the nearest police stations.
- Guarantees peace of mind for parents
- It provides security for the children and secures the feeling of parents.

- Tracking of missing kids can be made easily
- Geofencing child's movements through APIs
- It provides parents with a real-time location

DISADVANTAGES:

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