IOT BASED SAFETY GADGET FOR CHILD SAFETY MONITORING AND NOTIFICATION.

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1. INTRODUCTION

The purpose of this project is to detect the child activity and protect the children from danger by detecting the live location and video. A smart band have been proposed to monitor the safety of children. By this, parents know what is happening remotely and can take actions if something goes wrong. In this system, the collected values from every sensor like temperature sensor, pulse rate detection sensor, metal detection sensor, and the location value from GPS are used to detect the status of the child and alerts the respective guardians using GSM accordingly.

2. OBJECTIVE

- If the child is out of location or in a trouble, the child have to trigger the button.
- After triggering, the notification and video recording will start perform automatically.
- All the gathered information and videos will be send to the recipient automatically.

3. METHODODLOGY

Our proposed system consists of Raspberry Pi microprocessor in which all other sensors, GPS and GSM are integrated. The users are required to register using their credentials to use the application. The device will be given to the children for monitoring them regularly. We will feed

the boundary value while writing code for the system and we control it using GPS for that device which is also known as Geo Fencing.

These data are stored in the server. If the device moves, out of that boundary the server transfers an alert call by activating the GSM, to the user. The live location of the device will be updated in the server and pinged in the website for every few seconds.

We feed specific threshold values for sensors like temperature and pulse in which, if the device exceeds those threshold values or if the device gets exposed to abnormal condition then those values tend to be updated in the server. The server compares the currently obtained values with the coded threshold values, if they are beyond the threshold value, it generates an alert message through GSM. The alert messages are delivered to specified users in the form of SMS and the user can be able to login to the application to check the status and updated information.

After receiving the alert messages, if the user wants to visually check the status of the child, they are required to enter specific IP address of that camera for the first time before syncing and can be able to watch the live streaming videos which are updated to the server, for further uses they can directly view.

The microprocessor is used to control all these actions and the alert was done by checking for specific user of that device in the database.