IOT BASED SAFETY GADGET FOR CHILD SAFETY MONITORING AND NOTIFICATION

Idea 1:

The proposed model may provide the perfect solution to track child health issues and monitoring that whether they are fully secured or not in their living place. Here we proposed a model to compose all IoT healthcare ideas with the „Temperature, Respiratory and Heart beat" sensing module to provide the best application for providing complete care for children. The child can be even tracked by the parents in remote place. It can be done by monitoring child's blood pressure to check whether it gets crossed the normal or acceptable level of a human body and even the location of the child can be reported if it's out of the school range.

- ➢ Entry and exit of the child
- ➢ Current location of the child
- ➢ Respiration rate of the child
- ➢ Pulse per minute(PPM)
- ➢ Body temperature

Idea 2:

This research demonstrates Smart IoT device for child safety and tracking helping the parents to locate and monitor their children. If any abnormal values are read by the sensor then an SMS is sent to the parents mobile and an MMS indicating an image captured by the serial camera is also sent. The future scope of the work is to implement the IoT device which ensures the complete solution for child safety problems.

Idea 3:

The LinkIt ONE board is an open source stage. It comprises of inbuilt Wi-Fi GSM, GPS and Bluetooth modules. Different components such as Temperature sensor, Touch sensor, heartbeat sensor, GSM, GPS modules and serial camera are connected to the LinkIt ONE Board along with built-in GSM, GPS modules. For every 30 minutes except serial camera, the data from GPS, temperature, touch, and pulse rate data is pushed into the cloud. If the values read by the sensor pass a threshold value then an SMS alert is sent to the mobile. The child's parameters of touch, temperature & heartbeat can be plotted on a graph and used for parametric analysis.

Idea 4:

For this research, online questionnaire and semi-structured interview are employed. Online questionnaire serves as quantitative research to measure users' attitude, behavior and factors influencing their acceptance towards the child security system. After that, a semi-

structured interview is conducted as qualitative research helping in understanding trends, users' preferences, opinions and thoughts about current condition and IoT-based child security system. Besides, 50 parents nursing one or more children at most 12 years old are participating in this research. The data gathered will be used to prove the severity of current situation and the need to use IoT-based child security system.

BENEFITS OF PROPOSED SOLUTIONS:

- ➢ Child safety and tracking is of utmost importance as children are the most vulnerable.
- ➢ With increasing crime rates such as child kidnaping, child trafficking, child abuse and so on, the need for an advanced smart security system has become a necessity.
- ➢ With this motivation, a self-alerting "INTELLIGENT CHILD SAFETY SYSTEM USING MACHINE LEARNING IN IOT DEVICES" is developed to aid parents to monitor and track their children in real time as an alternate to stay beside them.
- ➢ This system is intended as an everyday wearable device on the child, in the form of a wrist band, hand glove, arm band or a belt.
- ➢ The system is designed to continuously monitor the location and body vitals of children.