LITERATURE SURVEY

IoT Based Safety Gadget for Child Safety Monitoring and Notification

1. Lai Yi Heng, Intan Farahana Binti Kamsin, "IoT-based Child Security Monitoring System", 2021.

The main aim of this paper is to describes a child safety issues and the need of using child security system. The smart band is waterproof, chargeable and equipped with sensors. All sensors are connected through the internet. This smart band contains GPS for tracking, identifying children's location and setting geofences. Via the smart band, children can also contact parents. Emergency button, a feature in which will automatically record video and automatically call 4 emergency contacts when it is pressed. An alert message along with the video clip is sent to parents' devices It assists parents to monitor their children remotely. In case situations happen, notifications will be sent to parents so that actions can be taken.

2. Poonkuzhlai1 P, Aarthi R, Yaazhini V M, Yuvashri S, Vidhyalakshmi G, "Child Monitoring and Safety System Using Wsn and Iot Technology", 2021.

The main idea of this paper is to provide better and efficient health services and security to the school children by implementing a networked information cloud through IoT so that the experts and doctors could make use of this data and provide a fast and an efficient solution. Like smart watches more advanced wearable models are required to reduce the risks in the human lives by giving hands to the children. The composition of more different purpose sensor may improve the abilities of required system design on the given problem domain. This paper has covered about the issues of children how it can be overcome by using advanced IoT components available in the hand.

3. Arun Francis G, Janani I, Kavya S and Ramiyadevi K, "Child Safety Wearable Device Using Raspberry Pi", 2020.

This paper would explore the idea of a children's smart wearable device. This system has the purpose of helping parents to locate their children. It's focuses on making an SMS text activated to communicate between the wearable child and a parent as the framework for GSM Mobile Communication. The wearable device will respond in real time with a text containing the exact location of a child, which will provide details on the position of the child and the ambient

temperature. The new method implemented was using a pi camera to capture the image of a person who is in the opposite position of child. The mail will be send to the parents to track the child location using Raspberry Pi. The pulse sensor is used for monitoring child's pulse rate. The sound sensor is used to differentiate the voice of the child and predict whether the child is in abduction condition. The secondary measure used in this project is the individuals present in the child's surroundings who could respond immediately to the safety of the child until the parents arrive at the place.

4. Manjunatha N, Jayashree H M, Komal N, Nayana K, "IoT Based Smart Gadget for Child Safety and Tracking", 2020.

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.

5. Fitsum Tesfaye, "IoT Based Children Monitoring System in School", 2020.

This paper proposes an SMS based solution to reduced parents in security and schools to track children's in real time. Different devices are connected with a single device through the concerned device is connected to mobile via SMS. The device can be used by stockholders to track children and get real time data. The main Advantage of the proposed system is send location by using mobile network (GSM). The work comprises ARDUINO UNO as microcontroller, along with GPS and GSM module. This device will also have the facility of different status of children by measuring the speed of hand movement of children.

6. Nandini Priyanka M, Murugan S, Srinivas K N H, Sarveswararao T D N, Kusuma Kumari E, "Smart IOT Device for Child Safety and Tracking", 2019.

Child safety and tracking is a major concern as the more number of crimes on children are reported nowadays. In this paper, 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 Link It 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.

7. Dipali Badgujar, Neha Sawant, Dnyaneshwar Kundande, "Smart and Secure IoT based Child Monitoring System", 2019.

IoT is getting upgraded day by day simultaneously its security is also upgraded. In this proposed system, we are mainly focusing on child remote monitoring system also we are using the radar devices as well as obstacle sensors which will detect the alert when the child enters the danger zone or else he/she is approaching towards harmful object then alert will be given to the caretaker through the mobile using an alarm or notification. For sensing purpose we are using Waterproof Ultrasonic Obstacle Sensor which are placed in the simple locket that is given to the baby so that locket will give alert to the caretaker through the mobile and for battery backup we are using solar panel through which the energy will get stored in the care taker's shoes and this energy will be dependent on the steps covered by the care taker.

8. Binu P K, Akhil V, Vinay Mohan ,"Smart and Secure IoT based Child Behaviour and Health Monitoring System usingHadoop", 2017.

In this paper, they are bound to lime light in this field which focuses briefly over the child health monitoring. In this work, we implemented a smart and secure health care monitor application that personify the monitoring of total health and mind status of the children. As part of which we are adopting the use of wireless sensors that will keep the child to get monitored. Our system enables the child to get involved with some android games which will make him/her to think and act dynamically. The game scores and the sensor readings obtained from the child will be monitored and analyzed by the system and actions will be taken accordingly.