IDEATION PHASE – LITERATURE SURVEY

Date	19 November 2022
Team ID	PNT2022TMID12711
Project Name	IoT Based Safety Gadget for Child Safety Monitoring & Notification
Maximum Marks	

Paper 1:

Smart IOT Device for Child Safety and Tracking

Published year: June, 2019

Author name:

M Nandini Priyanka, S Murugan, K N H Srinivas, T D S Sarveswararao, E Kusuma Kumari.

International Journal of Innovative Technology and Exploring Engineering(IJITEE).

Abstract

Child safety and tracking is a major concern as the more number of crimes on children are reported nowadays. With this motivation, 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 LinkIt 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.

IoT Based Smart Gadget for Child Safety and Tracking

Paper 2:

Published year: June,2020

Author name :
N. Manjunatha
Assistant Professor, Department of Electronics and Communication Engineering, East West Institute of Technology, Bengaluru, India
H. M. Jayashree, N. Komal, K. Nayana
Student, Department of Electronics and Communication Engineering, East West Institute of Technology, Bengaluru, India

Abstract:

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.

Paper 3:

Wearable Safety Device for Children

Published year: March, 2021

Author name:
Mr. Raghavendrachar S, Sunaina Nayak, Vishnupriya D, Ruba Abdul Rahman, Krithika K N.
K S Institute of Technology, Bengaluru, Karnataka.

Abstract:

Attacks on children have been on the rise at an unprecedented rate in recent years, with victims finding themselves in perilous situations with little chances of contacting their families. The main goal of this project is to create a smart wearable device for children that uses advanced technology to ensure their safety. As a result, this strategy is perceived as sending an SMS from the children's wearable to their parents or guardians. This project employs cutting-edge technology to protect the youngster through the use of a GSM module, ensuring that the child does not feel

abandoned while dealing with such social issues. An Arduino Nano, GSM, GPS, temperature sensor, heartbeat sensor, and a panic button will be included in the wearable. The heartbeat sensor detects the child's heart rate and delivers it to the guardian on a regular basis. If the child falls suddenly, the accelerometer detects it and alerts the parents. As a result, the parent has a sense of security.

Keywords: Wearable, IOT, Arduino Nano, GSM, GPS.

Paper4:

Child Monitoring and Safety System Using Wsn and Iot

Technology Publication year: 20**21**

Author name:
P.Poonkuzhlai,R.Aarthi,Yaazhini.V.M, Yuvashri.S, Vidhyalakshmi. *RMD Engineering College, Thiruvallur, India,*

Abstract:

This paper attempts to integrate microcontrollers into smoke detector circuitry and other components for safety purpose. This can be achieved by placing some sensors and devices in the building. In the proposed system, a smoke detector upon senses smoke activates its alarm, sends a low voltage signal to microcontrollers. The microcontroller will activate the relays which are connected to other components to alert residents that one of the smoke detectors has sensed smoke by means of voice and flashing lights. At the same time, it will send signals to valves, air suckers

and the water pump. The solenoid valve will operate the water pump which delivers water to the room through pipes installed inside the building to attack the fire.

Meanwhile, the air sucker will suck the smoke from the room to prevent suffocation. The proposed design is aiming to have cost efficient system, compact design, easily expandable, simple to install and replaceable components.