**IOT BASED CHILDREN SAFETY GADGET FOR CHILD SAFETY MONITORING AND NOTIFICATION**

**LITERATURE SURVEY:**

**PAPER 1:** **Smart IOT Device for Child Safety and Tracking**

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**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.

**Problem addressed:**

Child and women safety is a challenging problem nowadays due to antisocial elements in the society. The crime rate is day by day increasing. Schools and working places need high surveillance for ensuring the safety among children and women. Smart phones are playing major role for ensuring the safety, where some mobile based applications provide alert systems. During the emergency, mobile apps alert the control room of nearby police station or caretakers of children. This paper discusses designing an IoT device, which senses the child’s location and environment and during emergency, it should send the alert to the parents automatically.

**PAPER 2: IoT Based Smart Gadget for Child Safety and Tracking**

**AUTHORS:** N. Manjunatha , H. M. Jayashree , N. Komal , K. Nayana

**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.

**Problem addressed:**

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.Boundary monitoring system is implemented on safety gadget with the help of BEACON technology, as soon as the safety gadget moves far away from the binding gadget an alert is provided to parent on binding gadget. The system is used to monitor the health parameters and also used for location tracking during necessary situations in safety concern.

**PAPER 3: Child safety wearable device**

**AUTHORS: Akash Moodbidri, Hamid Shahnasser**

**ABSTACT :** In today’s world child and women are less secure and have many issues regarding their security purpose. They have to undergo among various difficult situations and have to prove themselves every time in all critical conditions. So, for their security and safety purpose government has provided security through rules and regulation to the society. Although there are many existing systems for security purpose need of advanced smart security system is increased. In order to overcome such problems smart security system for child and women is implemented. This paper describes about safe and secured electronic system for child which comprises of an Arduino controller and sensors such as temperature LM35, flex sensor, MEMS accelerometer, pulse rate sensor, sound sensor. A buzzer, LCD, GSM and GPS are used in this project. When the child is in threat, and the offender hand touches the touch sensor which is fixed in the bad touching places of a girl child, the device senses the body parameters like heartbeat rate, change in temperature, the movement of victim by flex sensor, MEMS accelerometer and the voice of the victim is sensed by sound sensor. When the sensor crosses the threshold limit the device gets activated and traces the location of the victim using the GPS module. By using the GSM module, the victim’s location is sent to the registered contact number.

**PROBLEM ADDRESSED:**

: This wearable over other wearable is that it can be used in any phone and it is not necessary that an expensive smartphone is required and doesn’t want to be very tech savvy individual to operate.