IOT Based Safety Gadget for Child Safety Monitoring & Notification

Literature Survey

Date	30 September2022
Team Id	PNT2022TMID46212
Project Name	IOT Based Safety Gadget for Child Safety Monitoring and Notification
Maximum Marks	4 Marks

Paper 1: Smart IOT Device for Child Safety and Tracking

Child safety and tracking is a major concern as the 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 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 an 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.

Paper 2: Child Safety Monitoring System Based on IOT

The overall Percentage of child Abusement filed nowadays in the world is about 80%, out of which 74% are girl children and the rest are boys. For every 40 seconds, a child goes missing in this world. Children are the backbone of one's nation, if the future of children was affected, it would impact the entire growth of that nation. Due to the Abusement the emotional and mental stability of the children gets affected which in turn ruins their career and future. These innocent children are not responsible for what happens to them. So, parents are responsible for taking care of their own children. But, due to economic conditions and the aim to focus on

their child's future and career, parents are forced to crave for money. Hence, it becomes difficult to cling on to their children all the time. In our system, we provide an environment where this problem can be resolved in an efficient manner. It allows parents to easily monitor their children in real time just like staying beside them as well as focusing on their own career without any manual intervention.

Paper 3: IoT-based Child Security Monitoring System

Nowadays, the crime rate associated with children keeps increasing due to which draws peoples' attention regarding child safety. This research is conducted to propose a child security smart band utilizing IoT technology. Online questionnaires and semi-structured interviews are methodologies used to collect data. The online questionnaire gains feedback by sending questions electronically, where answers need to be submitted online. In the semi structured interview, researchers meet and ask respondents some predetermined questions while others being asked are not planned in advance. Through information obtained, a smart band has been proposed to monitor the safety of children. By this, parents know what is happening remotely and can take actions if something goes wrong. The future improvements of this device will be adding functions and software to make it works like a phone such as messaging, gallery, Google, YouTube, meanwhile, adding more child security features so that child safety is guaranteed.

Paper 4: IoT Based Smart Gadget for Child Safety and Tracking

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 by hand or not using contact switch and alert the parent as soon as it is unplugged

Literature Survey on Smart Lender-IOT Based Safety Gadget for Child Safety Monitoring and Notification:

S. NO.	Title of Paper	Author	Joral Name&YOP	Methodology	Advantages & Disadvantages
1	Transport safety mechanism	Syed Imran Ali Kazmi	11 July 2020	PPDIOO Method is integrated with research qualitative methodology. PPDIOO is a cisco methodology determines the lifecycle of the services required for a network.	This research paper presents IOT smart transportation system for a children school which consists of IR sensors to calculate the number of students. There are many and many accidents that have occurred in school buses and the reasons for these 1accidents are the lack of an intelligent system for school buses, Lack of network in many schools in Oman. .
2.	IOT Based Smart School Bus	A.Aishwarya,S.Keerthana,	7 AUG 2020	The school unit consists of software namely SQL YOG which is used as the Database software and Microsoft Visual Studio used as the web application software.	This project helps both parents and therefore the school administration to manage and monitor numerous factors like number of students aboard, details of each student, pickup and drop timings, location, attendance system es Node MCU to push the data into the database i.e. The school unit. the school unit will add range of students' information in the web application

					created. solely the admins will manage and access the database unit.
3.	Machine Learning	J.Trelewicz	2019	A key element in this handle is the Web of Things (IoT). IoT permits for diverse resources and frameworks to put, through work together, and share, analyze and activity data.	The goal is to prempt these failures by placing various monitoring sensors on the assets. From there, the data is collected, analyzed, and used to create predictive failure algorithms that inform your maintenance actions. The predictive maintenance program integrates different types of machine information such as performance data, maintenance history, and design data to make timely decisions about maintenance intervention.