

REVIEW ON CHILD SAFETY WEARABLE DEVICE USING ARDUINOs

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ABSTRACT

The main objective of this system is to provide the safety to child which is lost in major crowded area. Nowadays, Childs are not secured they are facing many issues regarding their security. There are number of security systems for the child security purpose. In order to overcome such problems the child safety wearable system is implemented. This system is not required any expensive technology and it is user friendly for both educated and uneducated people. There are many wearable devices are available in the market to track the child using Wifi and Bluetooth but the Wifi and Bluetooth are the unreliable medium for the communication between parent and child. In this system we use the text SMS as a mode of communication between parent and child there is minimum chances of failing communication as compared to wi-fi and Bluetooth. It also includes SOS light and BUZZER to provide security to the child in real time situations and it helps to parents to check the condition of child using android application.

METHODOLOGY USED

This system will be helpful for children when they are in major crowded areas. This application is designed for trace to missing child. This device uses SMS based technology so the parents are able to use it more efficiently. Some past works on SMS based tracking which is not supportive to get an accurate location in our proposed system we have provided real time tracking. With the help of sensors embedded in the wearable gadget the parents can keep track of health conditions of the child. This system can overcome the fear that scares child in the country about her safety and security.

Hardware interfaces

- AT mega 328p
- Temperature Sensor
- Heartbeat Sensor
- IR sensor
- Pulse Sensor
- Ultrasonic Sensor
- Accelerometer

Software Interfaces

- Programming Language: Embedded C
- Tools to be used: Arduino
- Operating System: Windows

CHILD SAFETY WEARABLE DEVICES WITH IOT

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ABSTRACT

This paper talks about the idea of a child safety wearable gadget for little kids. Child wellbeing and following is a significant worry as the more number of wrongdoings on youngsters are accounted for these days. The inspiration for this wearable originates from the expanding requirement for security for little kids in current occasions as there could be situations of the youngster losing all sense of direction in the major swarmed regions. The significant bit of leeway of this wearable over other wearable is that it tends to be utilized in any mobile phone and doesn't really require a costly advanced cell and not a very technically knowledgeable individual to work. The motivation behind this gadget is to assist guardians with finding their youngsters effortlessly.

EXISTING SYSTEM

This work endeavors to handle a cultural worry that has been decimating the lives of uncountable people and their families. Well being gadget with wearable which help track the day by day action of youngsters and further more help discover the kid utilizing Wi-Fi and Bluetooth administrations present on the gadgets. Weakness of Wi-Fi and Bluetooth has all the earmarks of being inconsistent mechanism of correspondence between the parent and youngster. A gadget like this improves the degree of wellbeing of youngster. Exact acknowledgment of a hazardous circumstance is a concerned issue anyway the extension for improved exactness is promising.

PROPOSED SYSTEM

From the disadvantage of the current framework, we proposed the youngster wellbeing wearable gadget which is equipped for going about as a keen lot gadget. The parent can send a book with explicit watchwords and so forth., the wearable gadget will answer back with a book containing the constant exact area of the kid which after tapping will give bearings to the kid's area on Google maps application and will likewise give the encompassing temperature, UV radiation list so the guardians can follow along if the temperature or UV radiation isn't appropriate for the youngster. It gives guardians the constant area, encompassing temperature, UV radiation list and SOS light alongside Distress caution signal for their kid's environmental factors and the capacity to find their youngster or ready spectators in acting to save or solace the kid. A concealed camera is additionally fixed alongside the youngster dress, when the gadget gets initiated, the camera begins working and it transmits the live situation to the enrolled contacts, with the goal that they can have the option to perceive what's going on there.

METHODOLOGY

This application is intended for follow to missing kid. The kid wellbeing wearable gadget is fit for going about as a shrewd gadget. It gives guardians the ongoing area, encompassing temperature, SOS light alongside Distress caution ringer for their youngster's environmental factors and the capacity to find their kid or ready onlookers in acting to save or solace the kid.

SURVEY ON CHILD SAFETY WEARABLE DEVICE USING IOT SENSORS AND CLOUD COMPUTING

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ABSTRACT

Child safety is a major concern in any society due to the vulnerability of a child and consequently, higher rates of crimes against children. With this issue on our hands, a smart wearable Internet of Things sensor network for monitoring the environment of a child can be developed to help parents ensure the safety of their children. It must also necessarily include a mechanism for tracking the child. An advantage of this wearable device is that, according to its design, it can be accessed from any mobile device and does not mandate a lot of technical knowledge from the user to operate. The purpose of this device is to facilitate the guardian or parents in locating their child with ease and ensuring its well-being. The basic mechanism of this system involves monitoring the environment through sensor nodes, acquiring real-time data and transmitting this data to a cloud server. The data can be accessed by users through a web-based interface present on this cloud server.

METHODOLOGY

This paper surveys various papers related to an IOT based safety wearable device that helps the parents or guardians to monitor the safety of their ward or children. The main aim is to provide an effective and convenient solution to the parents or guardians to keep track of their child's safety and in turn to reduce the increased occurrence of crime against missing children. The paper compares the methodologies and the results gained from all of these papers. The Safety wearable device consists of various IOT sensors that provide information about parameters like temperature, UV, location etc. and the values recorded by these sensors are stored on the cloud. In summary, the parents or guardians will be alerted if abnormal values are read by the sensor or if values on these sensors cross a given threshold value, alerting them that the child could be in danger. This helps the parents to locate and monitor their child's safety. The future work would be to further develop and implement the safety wearable device so that it could be sown into a fabric(clothes) that could be worn, using synthetic fibres again for which we will refer the papers

REVIEW ON CHILD SAFETY WEARABLE DEVICES

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ABSTRACT

Child safety and tracking has always a major concern for parents as the reports of crimes on children are increasing nowadays. With this motivation, a smart device for child safety and tracking is made to help the parents to locate and monitor their children. Today child's safety is a decisive issue for parent's concern. Everyday there is a news of little one being missing.

LITERATURE SURVEY

A. RFID based System for School Children Transportation Safety Enhancement

In this paper author had presented a device to monitor pick-up and drop-off of kid to enhance the well-being during daily transportation from school and to school. In this system there are two main units, a bus unit, and a school unit. The bus unit is the system which is used to determine when a child is boarding or leaving the bus. The information from bus unit is then sent to the school system that identifies the students that haven't board or leave the bus. It then issues an alert message. In this paper author has a developed a web-based and database-driven application for controlling of the device. This application provides beneficial details about the children to caregiver's personnel.

ADVANTAGES

a. Ease of Use

It's important for the parent to make sure that tracking device is easy to use for their child and also it should be comfortable.

b. Non-Removable

It should be taken care that whether they can put it on and take it off on their own or not. It should also be kept in mind that child could remove it from their cloths. So, it Non-Removable.

c. Battery Life

The battery life required for these devices is more. The more is the battery life of the tracker is, the more likely you are to leave home without any tension of ending up with a battery that becomes dead very fast.

d. Comfort

You don't have any chance of locating your kid if they're not wearing it. So, it's the responsibility of the design engineer to make sure that the material should be flexible and non-irritating for skin, as well as adjustable enough to ensure a comfy fit. Hence the device should be comfortable for little one.

Access to low-cost, low-power sensor technology. that were surveyed on this paper.