

IoT BASED SAFETY GADGET FOR CHILD SAFETY MONITORING NOTIFICATION

LITERATURE SURVEY

SMART IOT DEVICE FOR CHILD SAFETY AND TRACKING

ABSTRACT

The overall percentage of child abuse cases 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 abuse cases, 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 condition and aims 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 makes 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.

INTRODUCTION

Basically, children cannot complain about abuse cases which they face in their daily life to their parents. They can't even realize what actually happens to them at their age. It is also difficult for parents to identify their children are being abused. Since to prevent children before being attacked, an autonomous real-time monitoring system is necessary for every child out there. In this system, the collected values from every sensor like temperature sensor, pulse rate detection sensor, metal detection sensor, and the location value from GPS are used to detect the status of the child and alerts the respective guardians using GSM accordingly.

CONCLUSION

The word Future resembles the word Children. As Dr. A.P.J Abdul Kalam's words "Youngsters are the future pillars of one's nation", today's children are tomorrow's youngsters, preserving their dreams and life for a better future is necessary. Therefore, each and every parent should take care of their own children, without letting them to fall into the dark world of abuse, which entirely ruin them physically, mentally and emotionally destroying our future. Hence, considering the importance of our future, our project makes it easy for parents to track their children and to visually monitor them on regular basis, which makes them ensure the safety of their children and reduces the rate of incidents of child abuse.

IoT- BASED CHILD SECURITY MONITORING SYSTEM

ABSTRACT

Nowadays, 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 questionnaire and semi-structured interview are methodologies used to collect data. The online questionnaire gains feedbacks by sending questions electronically, where answers need to be submitted online. In the semi structured interview, researcher meets and asks respondents some predetermined questions while other being asked are not planned in advanced. Through information obtained, a smart band have 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.

INTRODUCTION

Internet of Things (IoT) is a set of systems and devices interconnected with real-world sensors and actuators to the Internet, according to. It is able to make decisions via detecting the surrounding environment without human interaction. In this research, IoT is applied to propose a wearable smart band which helps parents to monitor and get known of their child's condition at

anywhere and anytime even if they are not by their children side. Via the IoT smart band, children safety is guaranteed, and crime rate is reduced as immediate actions can be taken in case the child is in danger. Besides, unlike existing smart band, which is less focusing on child security aspect, the proposed system emphasizes in getting as much data as possible so that actual situation can be identified. The use of IoT in this device is motivated by the need of child security system in Malaysia due to child safety issues resulting from increasing cases on child related crime. In fact, IoT has been applied in domains such as smart home, smart city, smart factory, supply chain, retail, agriculture, lifestyle, transportation, emergency, health care, environment, energy, culture and tourism . However, it is seldom used to monitor child's safety in Malaysia. Actually, there is a need to use IoT-based child security system since the safety of children has become a major concern. In fact, crimes on children keep increasing despite actions have been taken by the government. Revealed by, the overall percentage of child abasements worldwide is about 80% nowadays, out of which 74% are girls and the remaining are boys. For every 40 seconds, a child is gone missing in the world. Due to that, parents are worried for their children and perhaps, a hard challenge for them to guarantee safety of their children when they are out.

CONCLUSION

This research demonstrates Smart IoT device for child safety and tracking helping the parents to locate and monitor their children. If any abnormal values are read by the sensor then an SMS is sent to the parents mobile and an MMS indicating an image captured by the serial camera is also sent. The future scope of the work is to implement the IoT device which ensures the complete solution for child safety problems.

IoT BASED SMART GADGET FOR CHILD SAFETY AND TRACKING

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.

INTRODUCTION

The internet of things (IoT) refers to the set of devices and system that stay interconnected with real-world sensor and to the internet. During years' Child safety is under threat and it is very important to provide a technology-based solution which will help them under panic situations and monitor them using a smart gadget. The proposed system is equipped with GSM and GPS modules for sending and receiving call and SMS between safety gadget and parental phone, the proposed system also consists of Wi-Fi module used to implement IoT and send all the monitoring parameters to the cloud for android app monitoring on parental phone. Android application can be used to track the current location of safety gadget using its location coordinates on parental phone android app and also via SMS request from parent phone to safety gadget. Panic alert system is used during panic situations and automatic SMS alert and phone call is triggered from safety gadget to the parental phone seeking for help and also monitored for plug and unplug from hand, as soon the gadget is unplugged from hand a SMS is triggered to parental phone and the alert parameter is also updated to the cloud.

CONCLUSION

Throughout the research, it is clearly explained the IoT concept, child safety issues and the need of using child security system. Some previous studies have been included for designing the IoT-based child security smart band. It assists parents to monitor their children remotely. In case situations happen, notifications will be sent to parents so that actions can be taken. Through this, child safety can be ensured and crime rate will be reduced. However, the proposed device is not robust enough and does not contain sufficient functions to operates like a Atlantis Highlights in Computer Sciences, volume 4 470 mobile phone. Hence, the future enchantments will be

adding more features, software, applications, hardware to make the proposed system capable of working more intelligently, meanwhile guarantee the safety of children.

CHILD MONITORING SYSTEM

ABSTRACT

Everything in today's world is based on technology and we should be able to combat any problem with appropriate IT solutions in context. This project proposes a smart IoT Based device that can help reduce parents' insecurity with regards to their children's whereabouts in real-time. The project aims to create a system that allows the parents to keep a track of their children when they are out of their sight. This is done using a concealed WFPS-enabled device worn by the child which is connected to the parents' smartphone using a mobile network. This Child Monitoring system helps monitor or track the child and their activities from anywhere in the world. This system plays an important role. It tracks whether the children are safe. Some prominent features of this system are Geo-fencing, Discrete Panic Button, Long battery life, Real-Time Tracking.

INTRODUCTION

It is observed that more families are now spending time on work and social duties, resulting in a lack of interaction with their children. This causes increased concerns towards their safety and whereabouts which has made keeping a track of their activities quite challenging. Also, crimes against children are increasing rapidly around the world. According to a study, roughly 60,000 children go missing in India every year [1]. There is an assumption that every 10 minutes, a child goes missing. Cities like Mumbai and Delhi have the highest rate when compared to other metro cities. With the lack of availability of affordable child monitoring systems, it is hard to monitor the whereabouts of children. The safety of children is very critical since they cannot protect themselves. A momentary lack of parental supervision should be combated with an appropriate IT solution in context. Therefore, the proposed system must alert the parents when the child walks too far away and/or outside the "circle of safety" in their absence. The solutions that are available in the market today are not able to address all the issues in one device. There are a few ways that the existing solutions work. First, with the use of a smartphone. This method might seem handy, but providing a young child with a smartphone in

hand is not an ideal case, counter to the monetary investment for the phone, and the additional responsibility that the child has to take to handle and take care of the phone. This makes it a less feasible solution. The other way is via smartwatches that a child wears on the wrist. This may seem like an ideal solution, but the problem with this arises when the kidnapper is aware of such a device, and immediately removes the device from the child's wrist and destroys it. With the proposed solution, we make a discreet-looking device that doesn't look like a tracking device but is always with the child. Because of the way it looks, it does not distract the child, and with its small size, it can be easily attached to any part of the child's clothing.

CONCLUSION

Through this device, the parent can track and monitor their child with just a simple app and one hardware device which will be with the child. It is not possible to always stay beside children as most of the parents need to go for work. With this project, parents can track the location of their children and get alerts whenever the child is in danger. It becomes easy for parents to look after their child while working. This device is efficient to use. Thus by keeping in mind the advantages and applications we are developing a child monitoring device. In order to avoid kidnapping cases, the child monitoring system is needed.