

GPS BASED VULNERABLE CHILD TRACKING SYSTEM

Navya A¹, Nidhishree², Vidyashree³, Vishwa⁴, Mrs. Sadhana B⁵

^{1 2 3 4}Student, Dept. of Information Science and Engineering, CEC, Karnataka, India

⁵Asst. Professor, Dept. of Information Science and Engineering, CEC, Karnataka, India

Abstract - In today's scenario, dad and mom are busy in their career. As we've seen in India that both the mother and father want to paintings and appearance after their child's, aiming at the increasing safety dangers of kids, this paper affords and implements a kind of infant monitoring device based on android telephones to help parent to collect whether kids are safe or no longer. CMS implements the software hand feature and the hazard sector feature. The software program hand function can reveal the kid's everyday activities and the safety sector characteristic could make guardians understand kids's vicinity timely through the usage of GPS sensors and mobile GIS (Geographic Information System). This system is hooked up with a video digital camera which is operated based totally at the instructions from the microcontroller and is used to seize the video while child is in the school room. This important concept to layout a Child Monitoring System the use of IOT for you to help the Parents to display their infant, despite the fact that they may be far from domestic & locate each pastime of the Child. It is an creative, clever & helping Child Monitoring software to nurture an little one in an green manner. It is the device considers each of the minute info needed for the care & safety of the Child within the organization and anywhere else. The layout of smartness & creativeness comes with the usage technology/methods which is used which encompass Internet of Things (IOT), Live Video Monitoring machine, Cloud Computing (Data Storage) & User friendly Web Application (for User Controls). In order to discover every & every activity of Child we've distinct Sensors/Modules are attached with Child. All the facts that will be stored in Cloud & analysed at regular periods.

It will utility recieves the Message Details, Video Details and accurate Location of toddler and stores the statistics in parent dashboard which can be viewed with the aid of dad and mom and the predominant advantage of this feature is, attaching sensor to the kid in order that no person can discover it, additionally stay video tracking function is introduced. We are also imparting recording of video mechanically so that every time discern are busy with some work they'll watch it later. This system give each of the information from the kid's sensor to the server and from the server to the discerns telephone in brief c language of time. This software is divided into two Apps, initial is for the determine in which that are able to visible of the sports in their child or kids and other is the Teacher side, where in the teacher will replace the child facts to the parents via Application, so that it's far very clean to collect all data approximately toddler. Along with mother and father can know approximately the growth in their toddler inside the infant worrying organization. For the protection of the kid this system construct and it have to be well-known by means of group and mother and father. This design comes with using technology which include Internet of computers connected via Internet. IoT extends the use of Internet presenting the communication and as a result internetwork of the gadgets and bodily gadgets, or 'Things'. The distinguished words in Things (IOT), Live Video Monitoring machine, As we're thoroughly familiar with the hurdles confronted with the aid of Parents to nurture their little one along with specially in case if each the Parents are running. hence, we want to expand some information specific that can help dad and mom to have a continuous surveillance/watch on the child/Infant and might notify approximately the equal. hence, we've got come up with an idea to design a Smart Child Care System the use of IoT, as a way to assist the dad and mom to track their baby supposing they're away from home & locate each hobby for the Child from any remote side of the arena.

1. INTRODUCTION

The Identity conversation gadgets helped to start the idea of Internet of Things (IoT). Here gadgets may be tracked very easily The gadgets could be tracked, controlled or monitored the usage of far flung IoT are "internet" and "things". These Days mother and father are involved approximately their kids or child so that they need to keep a whole track in their child and screen them each and every time, it will bodily no longer viable so we introduce a Safety Video Monitoring machine that's useful for monitoring and monitoring the kid and their activities from everywhere in the universe. The primary trouble of child kidnaping can be resolved with the assist of child monitoring gadget along with the dad and mom who need to keep a tune in their every steps can employ this device. The net application with GPS and cellphone services can be used to locate the child's area.

1.1 Literature Survey

- [1] Nowadays baby lacking cases increases fastly. Child care is a essential difficulty in solving this major issue. Various structures and strategies were applied in solving this problem. In this paper, the global function device (GPS) primarily based baby care gadget is proposed to resolve this issue. This machine includes two nodes; kid and parent nodes, each carried through the kid and figure respectively. The determine node is a cellular device that has Bluetooth connection. The GPS era enables to determine the precise function of the kid. The

discern node receives the place of the child and shows the records on a designed map the usage of a GUI application this is embedded into the cellular tool. Bluetooth connection helps in tracking the distance of child and determine. The Bluetooth connection offers the extracted data from obtained sign energy indicator(RSSI). If the kid is a ways far away from the variety alert message will be prompted. The missing children from dad and mom may be effortlessly tracked the usage of the proposed System.

[2] Embedded Linux and GPRS (General Packet Radio Service) network provides the video monitoring System. ARM9 S3C2410 processor will be used for Monitor terminal hardware for centralization, in virtue of SDRAM, USB, GPRS module etc. To achieve real-time camera data acquisition and image compression it used C programming. Windows system uses image data and the terminal will display it, which will be received by the monitoring system. Through GPRS, monitoring center receives the Image data after the JPEG compression in 3-6 seconds.

[3] Extreme learning machine (ELM) and support vector machine (SVM) classifiers are developed to detect rales (a gurgling sound that is a symptom of respiratory diseases in poultry). These classifiers operate on Mel-scaled spectral features calculated from recordings of healthy and sick chickens during a vaccine trial. Twenty minutes of labeled data were used to train and test the classifiers, then they were run on the full 25 days of continuous recordings from the healthy and sick chickens. The resulting detection rate follows the course of the disease and clearly distinguishes between the healthy and sick chickens. These results improve on our previous findings from the same data, and demonstrate the potential for automated acoustic monitoring of the health of commercial flocks.

[4] A wi-fi sensors and GPRS community is used as a combination for controlling and tracking environmental parameters. It is used to track hen farm used in farm. Various environmental parameters like temperature, humidity, ammonia gasoline have a huge function in operations of Poultry. Operator can get updates regarding the internal environmental state of affairs of chicken farm via getting access to the statistics using a web web page. A combination of hardware and software program is used which will provoke the action mechanically to control the environmental parameters according to preset requirements, if there are any changes in parameters which exceed the presets are related with the raspberry pi that may manipulate and display all data. The records is transmitted the use of GPRS, and targeted report of

hen farm with fame of environmental conditions is maintained at a website.

[5] This venture recommends an android based totally solution which assists parents to track their kids vicinity in real time. To tune the vicinity Active RFID module is used and to become aware of the identification of the kid a biometric identity is used which is in built inside the device.

2. PROPOSED SYSTEM

In Proposed system, the information regarding child is shared to parents at each and every point. Parent can view the location of child when it is in bus and after getting in to the school the child activity in school is exposed to parent through video clip.

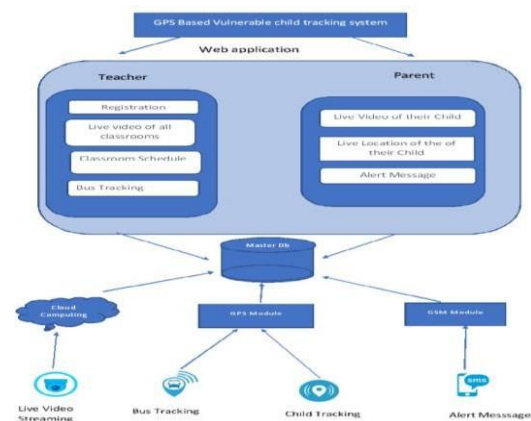


Figure 1 : Block diagram of child Tracking System

Figure 1. Block diagram of child monitoring system

Algorithm:

Step 1: Admin can register a parent in the system with child details.

Step 2: Parent login to the System using Username and Password.

Step 3: Child wear the smart belt.

Step 4: Belt contains the readable sensor like GSM/GPRS Module to track child location and send message.

Step 5: System track the current location of child. Location is sends to the parent's smart phone.

Step 6: If location can't be tracked or child location is out of school region alert message is send to parent phone immediately.

Step 7: When child is in the classroom, the live video records are sends to parent as well as Administer module.

Step 8: Cloud computing is used to store previous recorded video and compute live streaming.

User Interface:

- User Login Form.
- Admin Login Form

Functional Requirement:

- System should track the location.
- System should support the live video monitoring.
- System should properly interact with the smart belt.
- System should be able to store and view the recorded videos from google drive..

[4]Jay Limbachiya, ApurvHarkhani, Nehil Jain, Suraj Gupta proposed IoT primarily based School Bus Tracking System.

[5]Anwaar Al-Lawati, Shaikha Al-Jahdhami, Asma Al-Belushi, Dalal Al-Adawi, Medhat Awadalla and Dawood Al-Abri proposed the RFID-based totally System for School Children Transportation Safety Enhancement.

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3. CONCLUSION

GPS based Child Tracking System using IOT is one of the application of modern Information and communication Technologies (ICT) in video monitoring. The next era of Smart safety of child will be totally based on Internet of Things (IoT) technology has brought revolution to each field of common man's life by making everything smart and intelligent. In this project, we developed a application which is very useful for parents to look up to their child's security and activity when it is in school. Since safety of child in today's situation is in high risk, we developed this application which will concentrate on child safety. In our application the parents can track the location of the child when in school bus and once the child reaches school the parents can watch live video of their child activity in school thus ensuring high level of security to their child. Parents can also view the recorded video if they cannot watch it live. The Messaging system in this application is useful for teachers to send feedback on child performance to parents. Any meeting schedule, exam dates, time table information can be conveyed directly to parents through this message system. The parents can also ask their queries to the teacher through this application. Thus, this application takes care of providing child information to parents when it is in school bus as well as in school classroom.

REFERENCES

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