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IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Student Security and Management System

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Abstract: Now days, the crime over small children's is increasing day by day .the implementation of students Security System(SSS) via GPS to avoid crime, and reduce tension among parents. This is the combination of latest Technology using RFID, GPS/GSM, WSN. By using GPS technology it is easy to track the student location and enhances the security and safety. The information about student such as incoming time and outgoing time from Bus and campus will be recorded and automatically sends information (SMS) to their parents. That the student arrived to Bus/Campus safely.
GPS is a satellite-based navigation system made up of a network of 24 satellites placed into orbit by the United States Department of Defense. GPS was originally intended for military applications, but in the 1980s, the government made the system available for civilian use. GPS can show you your exact position on the Earth in any weather conditions, anywhere in the world.
Index Terms: rfid, gps, android, google maps.

I. INTRODUCTION

In todays world it is hard to look up on childrens. As parents are Busy working lives and hectic schedules . So it is very difficult for the parents to be up to date about their childrens environment.In this system there will be a GPS attached to the student that will keep a track of location of the student, attendance, Pre-Leaves can be given, keep track of examination marks on just a click of cell-phone app. This system can be carried out with the help of GPS as well as RFID Tag.

Currently, low-cost Radio Frequency Identification (RFID) has been implemented widely in both industries and academic institutes. Where the technology was focused more efficient in terms of processing time .Auto-ID technologies have been used time and man power to input data manually. Radio Frequency Identification (RFID) is a technology which doesnot required any one to do any manual scanning, but it uses radio waves to detect student data or any other materials is plugged with RFID tag automatically. This paper presents a simple and cost effective solution to make student tracking system 'smart'. The paper will present the concept, technology stack, components and the outcomes of implementing the solution. The primary goal of the proposed solution is to minimize the costs involved in implementation and to create a back end that can scale up easily with increase in demand.

A. For School Authorities

Live School Bus tracking on standard map

Schools transport facilities will be live given live the parents.

Helps to plan for optimizing the routes and thereby control the associated costs.

when school bus speed is up sends alert message to the school authorities

Geo-fence preferred/restricted areas - to make sure the vehicle is off / in the selected Geographical limits

II. DIFFERENCE BETWEEN RFID AND GPS

A. RFID (Radio Frequency Identification)-

It uses a Reader that transmits a very powerful low-frequency RF signals to an RFID sticker. this sticker is only made of metal and silicone. provides identifying information on a tag that may both receive and transmit information at radio frequencies. This information can be anything, from your name to the name of your dog , and is useful for a huge variety of purposes. The strength of the signal from the tag to the receiver may also be used as a locator, especially when used with multiple locaters to triangulate the position.

B. GPS(Global Positioning System)

GPS is a network of orbiting satellites that sends accurate details of their position to the space back to earch. GPS is well known for its military uses and was first developed by the USA . The very first GPS system was developed in the 1960's.

III. SCOPE

The system works mainly indoor & outdoor environment like inside the school as well as outside the school environment .The orientation and location is a important feature of a GPS. The proper position to capture perfect student location would be to directly send co-ordinates to server. Parents accesses this co-ordinates with the help of mobile devices.

IV. RELATED WORK

the system is implemented by using RFID. This paper is the solution for problems like implementation of Student Security System(SSS) via RFlD to avoid crime, illegal activates by students and reduce worries among parents.[1]

the system is implemented using GPS. In this paper This technique can be used to help people, using their mobile with or without GPS, to find the location of a student using Google maps. The first coordinates are generated from a GPS assisted mobile on Google map, this location is then sent through SMS to parents.[2]

the system is implemented using Android. This paper, we propose an authentication and authorization scheme for mitigating outsider and insider threats in the smart grid by verifying the user authorization and performing the Security System (SSS) Using RFID user authentication together whenever a user accesses the devices.[3]

the system is implemented by using a low cost ultra wideband (UWB) biometric radar sensor for respiration detection and monitoring applications. By using pulse Doppler radar technology, the developed sensor goes beyond detecting the breathing of a single person as conventional radars do; to simultaneously localizing and monitoring multiple human objects as well. The biometric sensor achieves a high range resolution of 3 mm, which makes it capable of detecting very tiny motions, such as breathing and heartbeat[4].

the system is implemented by using android. Active authentication is the problem of continuously verifying the identity of a person based on behavioural aspects of their interaction with a computing device. In this paper, we collect and analyse behavioural biometrics data from 200 subjects, each using their personal Android mobile device for a period of at least 30 days. This data set is novel in the context of active authentication due to its size, duration, number of modalities, and absence of restrictions on tracked activity[5].the system is implemented by using Internet Of Things technology. If the people travelling get accurate real time location of the buses along with estimate time for arrival at bus stop based on the real time traffic conditions, it will increase in reliability of the public buses. The solution proposed in this paper involves using the existing internet enabled devices on the bus a simple android tablet to capture the real time location and send to the servers[6].

the system is implemented by using geofencing. The paper presents fundamental concepts of geofencing and some applications based on this technique, in the transport & logistics sector.[7]

III. ARCHITECTURE DIAGRAM
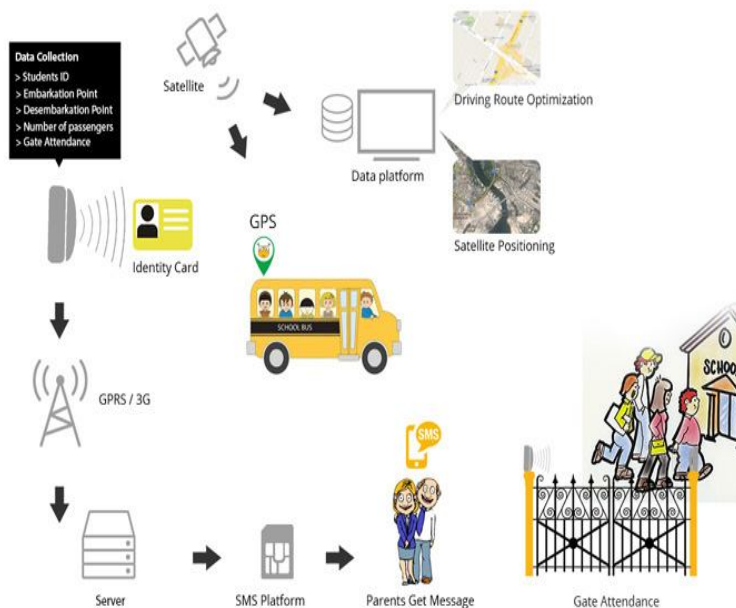
V. ACKNOWLEDGEMENT

VI. CONCLUSION

In this we are developing an approach to monitor a student's schooling life by the parents to avoid the worries of the child by which they can't monitor their child due to hectic schedule an also they can track children location with the help of this system an alert message generated in case of emergency.

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