

Real-Time Student (Kids) In-Out Time as well as Bus Location Tracking System

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Abstract: Schools are obliged to provide a safe transport system for kids so they can focus on their studies. Parents are as concerned about the safety measures a school has in place as they are about the level of education they expect the school to impart on their child. One way schools can ensure protection for their students is by using a Bus GPS tracking system. A high end GPS system is installed in the school vehicle all the signals from the vehicle are routed to an integrated central server for real time monitoring Information from the server can be transmitted via message alerts and Emails, or can be checked on the web or using mobile apps. What are the features of School Bus GPS Tracking System. The parent is informed estimated arrival time of their child's bus before it reaches the stop before/after school. Guardians can track the area of the transport progressively utilizing the application. Parents without smart phones can use the know your bus feature to receive a text message which informs them of the current location of their child's bus. In case there is a traffic jam, natural calamity or any other problem, a text message is immediately dispatched to the parent informing the reason for delay Benefits of GPS Tracking for School Buses. The advantages of using GPS tracking systems in school buses are plenty. The most important benefit is the peace of mind it provides parents as they are continually updated of their child's where about. School management will have access to detailed reports such as distance moved by each vehicle, time of arrival at each stop etc which can prove to be in valuable. The school admin can review routes to ensure that the drivers are sticking to planned routes and aren't missing any stops. The transport manager is also informed via alerts if the drivers over speed or if the vehicle has been in an accident.

Keywords: School Buses, Child Safety, GPS Location Tracking, RFID Tag Reader

REFERENCES

- [1] Leonardo D'Errico, Fabio Franchi, Fabio Graziosi, Claudia Rinaldi, Francesco Tarquini Center of Excellence DEWS, University of L'Aquila, Via Vetoio, 1 67100, L'Aquila, Italy, "Design and implementation of a children safety system based on IoT technologies".
- [2] Anwaar Al-Lawati, Shaikha Al-Jahdhami, Asma Al-Belushi, Dalal Al-Adawi, Medhat Awadalla and Dawood Al-Abri Department of Electrical and Computer Engineering, Sultan Qaboos University Box: 33, Al-Khod 123, Oman , "RFID-based System for School Children Transportation Safety Enhancement ", proceedings of the 8th IEEE GCC Conference and Exhibition, Muscat, Oman, 1-4 February, 2015 .
- [3] Juan Zambada, Ricardo Quintero, Ramon Isijara, Ricardo Galeana, Luis Santillan Computer Science Department Technological Institute of Culiacan. Sinaloa, Mexico, "An IoT based scholar bus monitoring system
- [4] Shraddha Shah, Bharti Singh, "RFID Based GPS and GSM Based Vehicle Tracking and Employee Security System," International Journal of Computer Applications (0975-8887), Vol. 62, No.6, January, 2013.
- [5] J.Saranya ,J.Selvakumar, "Implementation of Children Tracking System on Android Mobile Terminals", International conference on Communication and Signal Processing, April 3-5, 2013, India.
- [6] Md. Sanaul, Richard Dybowski School of Architecture, Computing & Engineering University of East London University Way, London, E16 2RD, "Advanced QR Code Based Identity Card: A New Era for Generating Student ID Card in Developing Countries", 2014 First International Conference on Systems Informatics, Modelling and

Simulation. SüleymanEken, Ahmet Sayar, Kocaeli University Kocaeli, Turkey , “A Smart Bus Tracking System Based on Location- Aware Services and QR Codes”, 978-1-4799- 3020-3/14/\$31.00 ©2014 IEEE.

7] Sneha, Chaitra N, Department of Computer Science & Engineering, R V College of Engineering, Bangalore, India, “Darideepa: A Mobile Application for Bus Notification System”, 978-1-4799-6629- 5/14/\$31.00c 2014 IEEE.

[8] R.K. Pateriya, Sangeeta Sharma, “The Evolution of RFID Security and Privacy: A Research Survey,” in IEEE International Conference on Communication Systems and Network Technologies, 2011.