

College bus Tracking System

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Abstract- This paper proposes a College Bus Tracking System which is hybrid application runs on Android smart phones, ios and web. This enables students to find out the location of the bus so that they won't get late or won't arrive at the stop too early. And information of students will be send to their parents. The main purpose of this application is to provide exact location of the student's respective buses in Google Maps besides providing information like bus details, driver details, stops, contact number, routes, etc. This application may be widely used by the college students since Android smart phones have become common and affordable for all. It is a real time system as the current location of the bus is updated every moment in the form of latitude and longitude which is received by the students through their application on Google maps. The application also estimates the time required to reach a particular stop on its route.

Keywords: GPS, Google Maps, Tracking system.

I. INTRODUCTION

In today's world, the time is more important for students. Being a product of high technology, mobile phones are more widely used and are becoming more and more popular. A vehicle tracking system is a commonly used application for tracking vehicles. Due to traffic congestion android works, most of the buses are delayed. People have to wait for their bus at the bus stops for a long time without even knowing when the bus will arrive. Thus, the arrival time of the bus cannot be guaranteed. The main focus of the project is to save the waiting time of students and provide them the details of bus.

College bus tracking system is a hybrid application which can run in android, ios and in the form of web portal also. This application gives the information regarding college bus so that student can easily track college bus. We gave a focus on students also so that parents can track their child.

II. LITERATURE SURVEY

1. Real Time Bus Monitoring System using GPS displays the real time locations of the bus in Mumbai city. This system consists of transmitter installed on the buses, receiver boards are installed on the bus stops. It provides the relevant bus routes and bus number from source to

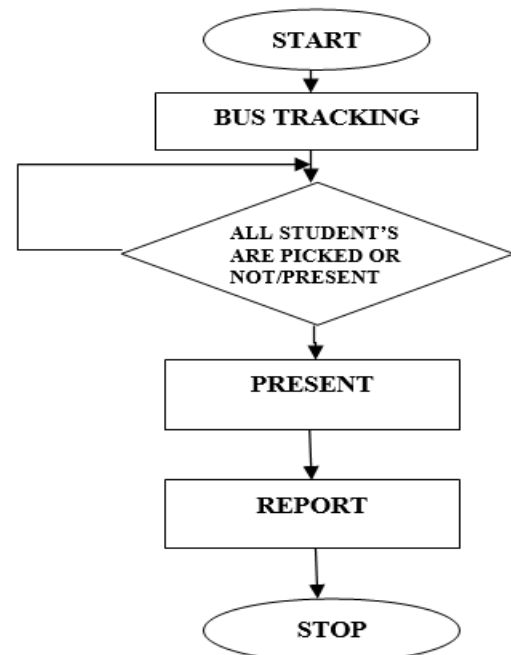
destination. It transmits the bus routes and bus numbers continuously as soon as bus comes within range of the receiver.

2. Smart college bus tracking management system and its application is fully android application based, it will display the location of bus to student but it is costly.
3. Real Time Web Based Bus Tracking System provides the relevant information regarding all the bus going from user's source to destination. The system is operated by GPS which is attached with every bus. It uses external hardware set-up for its implementation.

III. PROPOSED SYSTEM

The proposed system provides the exact location of the bus to the students and staffs from their location. Along with this, it also provides the following features:

- Details like Bus Number, Drivers Contact Number, Bus Stops, etc.
- Authentication for Admin, Driver, Registered College Students and parents.
- Admin has the facility to send SMS to intended driver and students in case of emergency.



III. MODULE DESCRIPTION

1. Registration & Authentication Module -Registration of Admin, Students, Parents & bus drivers, with Authentication via email, Google plus and Facebook.
2. Tracking Module - Tracking of bus & students - In this module when student have to know location of bus then he/she can track college bus. and if parent want to track student he can also track
3. Attendance Module - Attendance of students if location of student when student entered into the bus and when he out from the bus is matched then the attendance will considered by the application.
4. Monitoring Module -display location of student and bus to parents & bus driver. In this module location of the bus will send to students and parents and location of student send to the driver.
5. Report & Statistics Module - reports of students attendance, list of drivers & route reports with date & name sorting. In this module at the end of the month report is generated by the system automatically.
6. Feedback Module - feedback of bus driver by students & parents. In this module if any suggestion for bus driver and administration can be given by students and parents.

IV. CONCLUSION

We developed an Android Application to track the college buses and provide relevant information to their users. This project has described the design and architecture of our college bus tracking system. Our system is composed of smart phones and a server. The system is able to demonstrate its performance to track college bus from any area. And for students’ parents is very helpful application to access their activity Furthermore, our system is Low-cost, All the current information is stored to the server (admin) and it is retrieved to remote users (parents) via web based application. This system is more user friendly for users to get information visually shown on Google Map.

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