MI SWIFT:SMART BUS TIMING AND TRACKING SYSTEM

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ABSTRACT

Providing real-time bus arrival information can help to improve the service quality of a transit system and enhance its competitiveness among other transportation modes. The most of the time wasted by the people is on waiting for buses on the bus stops which is really horrible. It becomes essential to track the buses real location and provide passengers predicted time of bus arriving at the bus stop and also people must get the bus information like where the bus is it in traffic. It is also useful to find the nearby tourist places like temples and hotels. This paper focuses on system that help passengers locate the current location of the buses and expected arrival time of the buses to their nearest bus stop.

INTRODUCTION

This application will serve bus notification information to people and depending on this notification they can exactly track location of particular bus updated by bus conductor. This will require each ticket conductor of bus to be engaged with android phones containing this application. this is to provide accurate location to the passengers with the accurate estimated time of arrival. Bus passengers often face difficulties in finding the bus position or waiting a long time at the bus stop for the bus arrival. Incase if the passenger does not have a smart phone then they can track the bus location through SMS There are two kinds of service that all transport systems must provide: (i) route and schedule information (maps, schedules, and information on connections) (ii) basic information (fare policy, stop locations, etc.). These types of information are delivered in a variety of ways: (a) traditional delivery methods include printed maps and schedule cards, and "rider guides." These are often distributed physically onboard buses and at key transit locations. (b) As with other types of information, the majority of distribution has moved to the Internet. Nearly all transport systems now provide service information on their websites where users can either view it electronically or print it at home or in their office. (c) Third-party distribution systems have also become increasingly common. Most major transport systems now present route and schedule information through Google Transit, and smaller transit systems are also moving in this direction. The primary goal of this research was to enable passengers to easily access data related to the bus route they had interest in (especially estimated arrival time). Two of the displays show the estimated arrival times of the six different bus routes that come to the transfer station. These displays also serve as a means to provide current news and information about Wave Transit. For instance a message can be displayed to broadcast bus downtime and any emergencies that may arise on any of the routes.

LITERATURE REVIEW

PAPER 1:Real-Time Bus Arrival Time Prediction

Technology used:

Automatic Vehicle Location (AVL) system , Automatic Passenger Counter (APC) system.

Methodology:

Artificial Neural Networks (ANN) models, Kalmar Filter (KF) models

Limitations:

- ➢ Needs improvement of data management
- ➢ Can only offer bus location information (e.g., the coming bus is 2 stations away).

PAPER 2:A Bus Arrival Time Prediction Method Based on GPS position and Real-time

Technology used:

Traditional Time-of-Arrival Techniques and BAT algorithm

Methodology:

GPS calibration, hybrid dynamic prediction model

Limitation

➤ To achieve accuracy enhancement.
➤ ANN based methods always presents poor real-time performance, and not very fit for BAT prediction.

DRAWBACK IN EXISTING SYSTEM

➤ It doesn't show a accurate data for passengers.
➤ There is no bus timing information available for localized areas but its available for intercity buses.

PROPOSED SYSTEM

➤ In order to overcome the above drawbacks system is proposed.
➤ This is an android based system which will provide all required Information about the buses in localized area.
➤ The application will be based on user friendly environment.
➤ That details of buses will be updated at any time simultaneously.
➤ The application will be updated from time to time , so that all changes in the bus timing and the routes are recorded.
➤ There is an use of gps in existing system ,currently having necessity to build a timing system using smart phone technology
➤ We can extend the traffic analysis in future.

ADVANTAGES

➤ Its an efficient way for improving the accuracy of bus arrival predictions.
➤ it can improve passenger satisfaction and reduce customer complaints.
➤ Deliver accurate service information to all bus stops across the network, even in the most remote locations..
➤ Its an highly secured to maintain bus details stored in database.

➤ Efficient for users to retrieve information with the help of android mobile system.
➤ Here we use the scheduling algorithm for bus timing.
➤ Energy consumption is high
➤ This application is very helpful for unknown passengers.
➤ It is an efficient way to find nearby tourist places in intercity

BLOCK DIAGRAM & EXPLANATION

SYSTEM ARCHITECTURE
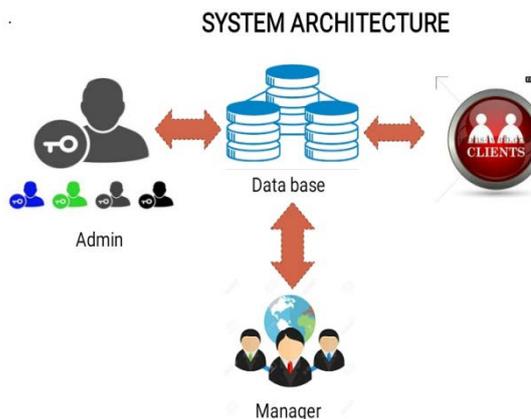
➤ Client want to get bus details on mobile device.
➤ Data information will be stored in database. Simultaneously client can get information from the database.
➤ It involves a great deal of multitasking.
➤ Admin sends the information to the client.
➤ They act as a connecting link between the senior management and the user.
➤ Finally the client can get the arrival and departure time.

ALGORITHM FOR THE BUS ARRIVAL TIME

Step 1. Read the input

Step 2. Check for the connection

Step 2.1if its available proceed search information.

Step 2.2otherwise proceed exit.

Step 3.it should display details about bus timing.

Step 5.if the user selects the options, it will gives bus timing and location

Step 6.if the user selects the tourist option it shows near by temples and hotels.

Step7. display the detailed timing information and notification in voice.

SYSTEM FLOW
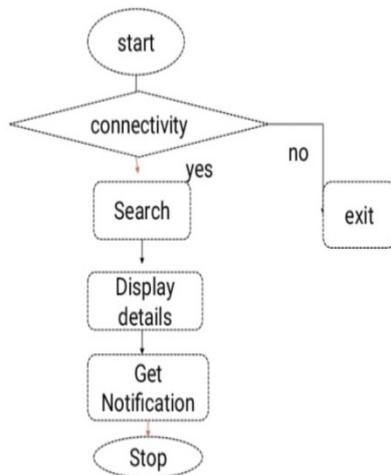
FEATURE EXTRACTION
- To reduce timing complexities
- Efficient for travelling passengers
- Redundant data will be analyzed
- To analyze the current location
- Helps the passenger to utilize the time
- To display the bus timing and route details in mobile app.
- To monitoring the traffic and analysis

CONCLUSION
- In this paper we present a crowd participated bus arrival prediction system using commodity predictions.
- The data will be collected from different factors like bus routes from source to destination, real time traffic impact factor construction, bus arrival timing from the sql database through internet service.
- The analyzed data and information is further stored in cloud database.
- The proposed system was aimed to improve the bus service in localized areas.

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