ADVANCE PMPML SYSTEM

Prity A. Pharande, Kunika S. Shelar, Pradnya S. Sonawane, Prof.Ashwini Jadhav

NMIET,Department of Computer Engineering

Abstract: -Public transport bus services square measure usually supported a daily operation of transit buses on a route business at in agreement bus stops in keeping with a printed conveyance timetable. Therefore peoples stay up for the bus on bus-stop as they're unaware regarding timings of buses that ends up in time wastage. Another is conductor needed to conduct fare assortment and traveler might face money issues. Like these, there are many issues long-faced by the present system. To beat these all we tend to return up with a new system which can scale back waiting time for passengers yet as several alternative problems. In projected system, applications, used for passengers and another for bus conductor and one portal for admin. GPS location of conductor are detected on an app. So, User able to recognize the present location of bus with time and plenty of additional other choices. Because of growing world importance of the time in day to day life there is want of easy transport. Therefore we tend to square measure providing Associate in nursing automaton application that will give the data of car location tracing and observation with the QR code for the Ticketing. It conjointly includes the feature of density live for the user convenience and nearest bus on the market on the route and can build the user up so far as bus moves.

Keywords: -GPS, Tracking,Security, Android public Transportation,MySQL.

Introduction: - This article elaborates the utilization of the unstructured supplementary service information (USSD) protocol to be used in price tag reservation system in any selected stop-point for transportation system system. The system conjointly makes use of AN existing GPS based mostly bus chase system to gather information on position to predicting AN estimation of the bus point at a user elect purpose and sends an USSD conscious of the user. Such prediction of the expected point of consequent bus at stop points is of significance to operators and users. With the information of traveler on any explicit route and point info, transit operators will promptly reply to unexpected service needs or vehicle delays by saying alternative transit choices to change traveler trait. Over a length of a month, operators might spot difficult routes and shifts that persistently run late and take social control and technical actions as required for improved performance. The quality of transit service might thus be increased, which would ultimately build the general public transit facilities additional easy and engaging as compared with alternative in developing nations. Information collected within the entire method – range of traveler for any route, WHO has reserved his seat; calculable arrival time; available seats and kind of bus inbound may be disseminated to travelers through numerous mediums like electronic boards installed at bus stops. This info shall facilitate cut back passengers' worries whereas watching for buses and save them period of time because they will time their arrival at the bus stops additional near to the schedule and conjointly reserve a seat in any long route.

Literature Survey:-

Paper Name: -Tracking & Ticketing using USSDey.

Author: -Siddhartha Sarma

Description: - Unstructured Supplementary Service Data, a protocol used by GSM cellular telephones to communicate with the service provider's computers. USSD is used for WAP browsing, prepaid callback service, mobile-services, location-based services, menu-based information services, and also as part of registering the phone on the network of a particular service provider. In this project we are using certain algorithms to determine information about any bus in any route served by an operator, whose information can be received by the user, commuter as well as the operator. Information that we can collect as part of the system are location, seat vacancy status, traffic patterns and

then the algorithms designed ascertain the need for stop-skipping and rerouting, by designing new routes with view to destinations of passenger onboard and keeping close distance to the former route.

Paper Name: - Mobile enabled bus tracking and ticketing system.

Author:-Paul Hamilt,SureshSankarananrayanan.

Description: -Public transportation in many countries is being used as a means of transport for travelling and accordingly people would prefer these public transportation to be scheduled properly, on time and the frequency be increased for commuters to make good use of it. It has been found that quite an amount of research work has been carried out, in this sector, by way of using RFID technology in the public transportation systems towards the tracking of passengers when they board and exit buses. In addition research has also been carried out in using GPS towards the tracking of buses along with RFID technology at traffic lights, bus stops, intersections etc and displaying expected arrival times on LCD screen at bus stops along with their current positions. Taking these aspects into consideration, an intelligent mobile bus tracking system for the Jamaican Urban Transport Corporation as case study has been proposed which enables commuters towards tracking the bus of their choice and also knowing their expected arrival times. In addition to tracking, the proposed system also notifies the passengers on their mobile towards topping up of credit in their RFID enabled smart tickets for traveling, well ahead in time. The above System proposed has been validated using Android in this research which allows commuters towards tracking of buses and knowing the expected arrival time. In addition commuter been reminded on their Android mobile handset towards topping their credit on their ticket towards travelling. The above two solutions would alleviate the challenges faced by commuters in respect of referring to the static bus timetable or looking into LCD display screen which would inform the expected arrival time of the next bus. The implementation of the system has been carried out using Android emulator.

Paper Name: -A User-Centered Design Approach to Self-Service Ticket Vending Machines

Author Name:KARIN SIEBENHANDL, GÜNTHER SCHREDER, MICHAEL SMUC, EVA MAYR, AND MANUEL NAGL

Description:A prototype for a novel generation of TVM was developed in three phases: First, the context of use was analyzed. In the second phase, we conducted a requirements analysis. Third, different hardware and software interaction designs were iteratively tested and evaluated. The resulting prototype met the requirements of most user groups, though further adjustments are necessary.

Paper Name: -Taking an Electronic Ticketing System to the Cloud.

Author Name: - Filipe Araujo; Marilia Curado ; Pedro Furtado.

Description: In this paper we address the challenge of creating an electronic ticketing system for transportation systems that can partially or completely run on the cloud. This challenge is defined within the scope of an industrial project. The resulting system should be able to reach a large spectrum of customers and should provide two key advantages: lower operational costs, especially for small clients without IT departments, and faster execution of queries for monthly or other sorts of analysis, using the elasticity of cloud-based resources. To fulfill the goals of the project, we propose very standard technologies and procedures: a three-tiered architecture; a separation of the online and analysis databases; and an Enterprise Service Bus to get the input from very diverse hardware and software stacks. In this paper we discuss several options regarding the location of these facilities on the cloud and we also evaluate the costs involved. While this work already defines many features of the system, it must be considered as preliminary, as some open details remain for future work.

Paper Name Experimental Study on Real-Time Bus Arrival Time
Prediction with GPS Data.

Author Name: - Wei-Hua Lin and Jian Zeng.

Description: Bus headway in a rural area is usually much larger than that in an urban area. Providing real-time bus arrival information could make the public transit system more user-friendly and thus enhance its competitiveness among various transportation modes. As part of an operational test for rural traveler information systems currently ongoing in Blacksburg, Virginia, an experimental study has been conducted on forecasting the arrival time of the next bus with AVL techniques. This paper discusses the process of developing arrival time estimation algorithms, including route representation, GPS data screening for identifying data quality and delay patterns, algorithm formulation, and the development of measures of performance. Whereas GPS-based bus location data are adopted in all four algorithms presented in the paper, the extent to which other information is used in these algorithms varies. In addition to bus location data, information relevant to the performance of an algorithm also includes scheduled arrival time, delay correlation, and waiting time at time-check stops. The performance of an algorithm using different levels of information is compared against three criteria: overall precision, robustness, and stability. Our results show that at the site where the study is being conducted, the dwell time at time-check stops is most relevant to the performance of an algorithm. Key words: AVL techniques, Traveler Information Systems, Advanced.

## Paper Name: - Vehicle Tracking and Locking System Based on

GSM and G.

Author Name: - R.Ramani1 , S.Valarmathy.

Description: - Currently almost of the public having an own vehicle, theft is happening on parking and sometimes driving insecurity places. The safe of vehicles is extremely essential for public vehicles. Vehicle tracking and locking system installed in the vehicle, to track the place and locking engine motor. The place of the vehicle identified using Global Positioning system (GPS) and Global system mobile communication (GSM). These systems constantly watch a moving Vehicle and report the status on demand. When the theft identified, the responsibleperson send SMS to the microcontroller,then microcontroller issue the control signals to stop theengine motor. Authorized person need to send thepassword to controller to restart the vehicle and open the door. This is more secured, reliable and low cost.

Proposed System: -In this projected work, a unique technique of car tracking and protection system accustomed track the larceny vehicle by mistreatment GPS and GSM technology. This system puts into sleeping mode whereas the vehicle handled by the owner or approved person otherwise goes to active mode, the mode of operation modified by in person or remotely. If any interruption occurred in any facet of the door, then the IR sensing element senses the signals and SMS sends to the microcontroller. The controller problems the message concerning the place of the vehicle to the automotive owner or approved person. When send SMS to the controller, problems the management signals to the engine motor. Engine motor speeds ar bit by bit decreases and are available to the off place. at that time all the doors secured. To open the door or restart the engine, authorized person has to enter the passwords. In this method, pursuit of car place simple and doors locked mechanically, thereby crook cannot flee from the automotive.

Architecture Diagram:-
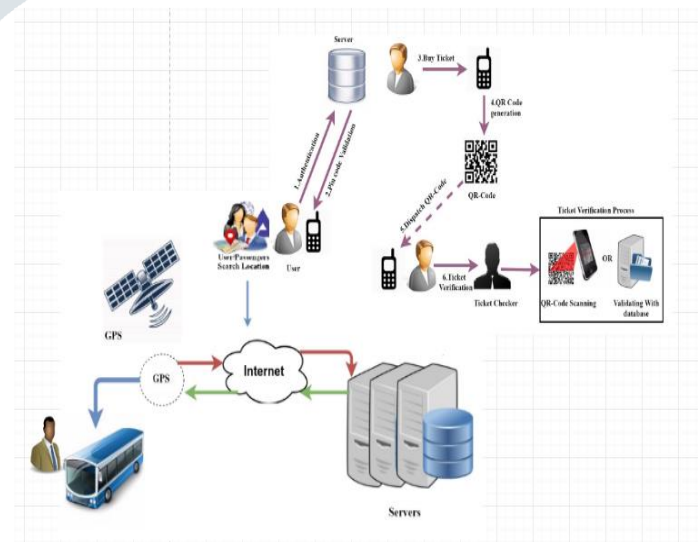
Algorithm:-

- Start
- Registration
- Login
- Home Screen
- Then display search bus (Map)
- GPS on
- Turn on GPS Service
- Receive Location Latitude and Longitude
- Send Latitude-Longitude to Google Server
- Receive Location Address
- Scanning QR code for ticket confirmation
- Stop.

Conclusion:

This Advanced PMPML system is very useful and important mainly in cities. This system has many advantages like easy to use, wide area range, easy to implement in vehicles, more effective, huge capacity etc. This system was made of a Bus ticketing and tracking module containing features to access dynamic vehicle location and send it to the server. Then people can access this information from their android mobile phones. Through the results, it was possible to conclude the feasibility of building a bus localization system with automatic route registration. GPS accuracy provides detailed tracking of the route and GSM bandwidth usage can be compensated by data packets. With implantation of such solutions can favor a greater adoption of public transportation services by young people and others in general. Like the Android app may be able to bring new features such smart ticketing and provide more information about bus and passenger in the future.

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Dept. of Informatics Engineering, University of Coimbra, Portugal filipius@uc.pt,
marilia, pnf, rbarbosa@dei.uc.pt.
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