

Real Time Bus Disaster Management System

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Abstract -Bus Pooling can efficiently utilize scattered social resources to reduce urban traffic problem. However, car ride sharing has the problem of low capacity and high cost, and it cannot satisfy demands for recurring, long distance, and low-cost trips. In this system, the passenger will book online ticket and the cost are up to the destination which they want to go. As soon as there is some issue in the bus, notification will be sent to the passenger. Passengers use their mobile phone or desktops to know bus time. As compare to manual system it is very easy to use and convenient for passengers. This system notifies the passenger about the current status of the passenger for reducing their inconvenience.

Key Words: Ride sharing, Bus pooling, Capacitated clustering problem, Bus arrival time prediction, Location allocation problem, Mobile phones, Cellular based tracking RFID, WSN, Zigbee, Internet, GPS (global positioning system), Mobile application, Public Transportation, LCD display.

1. INTRODUCTION

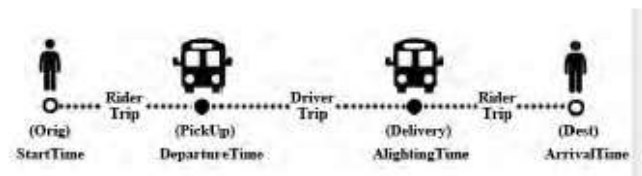
A survey on bus traffic shows that daily commuters face some difficulties. Passenger wasted their time waiting for the bus. To solve passengers' problems, in this project passenger will book online ticket and the cost will be charged to the destination they want to reach. Passenger will be informed of where the bus is and how long it will take. And manage the bus breakdown issue. The Maharashtra State Road Transport Corporation is the state-run bus service of Maharashtra, according to google India with 16,000 buses which ferry 7 million passengers daily on 17,000 routes. There is no any particular system which can give exact location of bus. Now a day's bus tickets are generated on paper work and conductor needs to submit it at the depot while reach bus to depot. There is no any information is available to passenger regarding seat availability or bus exact predicted time.

2. Literature Survey

2.1 Bus Pooling: A Large-Scale Bus Ridesharing Service

Abstract- In this service used to match knowledge and information. It utilizes scattered social resources to reduce demand for vehicles in urban network road. Car have a problem for low capacity and high cost and it cannot satisfy recurring long distance and low-cost trips. In this project have done a large-scale bus ridesharing service to resolve this problem. In thus rider use online model to add trip demand and wait for customers to gather enough people. The provider assigns a driver when integrated matches request found to maximize success rate so they developed

exact algorithm to optimize ride matching service. Ride taxis provide higher cost performance or a demand bus service for every ride request. So, it reduces no. of vehicles by 92% and 96% to 45% and 67% meanwhile.



2.2 PT Rider: A Price-and-Time-Aware Ridesharing System

Abstract-

Ridesharing is popular in commuters because of it can reduce travel coast and time. Air pollution and fuel consumption reduced in rideshare system commuters have only one choice to book ride and travel on time so we present a price and time aware ridesharing system. PT Rider provide more option for commuters so they able to choose vehicle matching their preference it has also include pickup time and price so commuters easily matching their preference for their best. in real life dataset contain 432,343 trips extracted from 16,000 shanghai taxis for the day is used to demonstrate that PT Rider will return various option for every ride sharing request in real time.

2.3 X share-a-Ride: A Search Optimized Dynamic Ride Sharing System with Approximation Guarantee

Abstract- Rideshare is more suitable and environment friendly mode of commute that gained in popularity so there are more no of service providers but there are not many platforms for facilitating peer-to-peer ride sharing in dynamic scenario, integrated with multi-model trip planners. Such system highly search optimized for retrieval of multiple potential ride matching in real time multi-model trip planners have high look to book ratio. At same time validity of the matches need to be ensured even in dynamic setting while addressing quality considerations maximum detour incurred by rides, by commuters walking distance and time windows of request. So, we arrange X share-a-Ride (XAR) System of dynamic peer-to-peer ride sharing is scalable highly search-optimized for retrieving multiple potential matches for ride request to handle quality considerations. hierarchical discretization using grids of geographical region, theoretical guarantees for landmark and clustering along with efficient memory indexing of rides to maintaining s patio-temporal validity within specified error tolerance.

This helps eliminate computation of shortest path in real time during search to make XAR search optimized to suitable for integration with a multi-model trip planner we are discuss modes of integrating XAR with trip planner for building integrated system it generate three data set fronts of NY taxi trip evaluation of XAR thoroughly a ride share request (i) with system parameters empirical performance against theoretical guarantees as well as trade of performance(ii)benchmark XAR against a state-of the art ride share system showing improvement in search efficiency and finally(iii)public transportation efficacy combining ride sharing.

2.4 Frugal Crowd Sensing for Bus Arrival Time

Prediction in Developing Regions

Abstract- The applications have design of crowd sensing helps to transportation system considering availability high internet speed, data sampling high, and through data hungry interface application. But, of internet provided by mobile operator over data intensive is avoid by user who has low-income in developing region. Besides, transit centers and bus operators in this district are unable to achieve of provide any kind of basic system and services support. Depend on this scenario paper shows requirements of system and mobile application of system that implement disadvantage of bus arrival time prediction in developing area. In this application user exchange data in minimal amount with everyone, by collecting data only user is idle, waiting on bus stop.

3. Existing System Limitation

3.1 Bus Pooling: A Large-Scale Bus Ridesharing Service.

- It supports only large-scale commuters travel to same direction.
- This system doesn't support bus breakdown.

3.2 PT Rider: A Price-and-Time-Aware Ridesharing System.

- It doesn't have car disaster management system.
- It only offers customer as time base shearing.

3.3 X share-a-Ride: A Search Optimized Dynamic Ride Sharing System with Approximation Guarantee.

- Customer have to wait for other booking for ride.
- Approximation of bus time goes wrong due to data traffic generation on route.

3.4 Frugal Crowd Sensing for Bus Arrival Time

Prediction in Developing Regions.

- This system least concerned about actual and bus management.

- This system needs high speed internet services.
- This system needs also high data sampling.

4. Propose System

User need to registration for ride then search for bus and book tickets online via application and check availability of seat. Driver can update bus details and bus break down information to the server and server acknowledge to passenger. This system can be accessible from android app or web site. Server can store user, driver, bus schedule data.

5. CONCLUSION

The proposed system also intimates to user or admin about failure of bus. Passengers use their mobile phone or desktops to know bus time. As compare to manual system it is very easy to use and convenient for passengers. Also, the passenger can book tickets online and the cost are up to the destination which they want to go. This system notifies the passenger about the current status of the passenger for reducing their inconvenience.

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