Vehicle Emergency Service System

Suwarna Wanarkar[1] (Hajare), Rohit Mahajan[2], Anjali Kungwani[3], Shruti Shende[4]

Abstract- The system of vehicle repair service is a problem that needs to research on the location of repair centres according to the service needs and available resource based on the maximal covering location and priority queuing theory. Considering the effect of waiting time due to rush jobs, this project proposes a model that maximizes the service covering, and restrains. Service level of uncovered zones. As we see people facing many problems related to vehicles and Most of the people use network services and offering online application service in order to create more benefit for users as well as service provider. So we will build the application of Management system with notification using app will be developed to resolve all the current problem related to the vehicle. Using which the person who is looking for vehicle repair service will get all the facilities of the vehicle in their own location. The scope of this project will focus on the user and service provider who will use this application via online service. This project will also be implemented in small stores. The proposed system will save the efforts and time of a user as well as improve the growth of employment.

Keywords: VESS, Location service.

I. INTRODUCTION

Emergency system (ES) is a system of several components including organizations, transportation and communication networks, trained professionals, and administrators aiming to work in coordination for success[1]. Having the primary concern as emergencies, planning of this system requires significant work to ensure serving the public at its best Other than administrative decisions, planning of physical infrastructure, primarily locating emergency vehicles constitutes a major part in the performance of the system.

Various criteria could be important in deciding the locations of emergency vehicle server locations[3]. In our study, the problem of vehicle Emergency system such as air leaks in tire tube, petrol finished during travelling, heating of car's engine and battery drain as a server-to-customer service is discussed based on online processes The region where vehicle emergency service system would be located is divided into demand regions and some of those regions are considered as candidate vehicle locations[5]. As the studies toward vehicle service related system have been growing. We are focusing on the issues like vehicle accident management system, vehicle location tracking system, a system for a fastest route for vehicle etc. It is good to focus on such issues but we should not forget to issues of our daily life vehicle problem. That is small and as well as an important issue to focus on.

In our daily life, we either used 2 wheeler or 4 wheelers to go on different places like college, office or even if we want to hangout we use our vehicle. The vehicle has become our need for travelling. But every time when we out with our vehicle we forgot to keep emergency vehicle tools with us. Sometimes we stuck in places where there is no vehicle emergency shop nearby and this happens with us.

Such as
1. Air leaks in a tire tube.
2. Petrol finished travelling.
3. Heating of car's engine and battery drain.
You will definitely go to stuck there. So keeping such problems in mind we are proposing a vehicle emergency service system which arrives within the specific time designated place and can cover as much of the potential demand.It is critical that vehicles be all-time located so as to ensure an adequate coverage and a quick response time.

II. RELATED WORK

Our work is closely related to the study of vehicle emergency methods.

Paresh Rathod | Pasi kampp(2013)[10]user requirements for emergency response vehicles. A research review of existing emergency response vehicles (ERVs) shows the implementation of technological services and solutions across various spectrums in normal conditions. However, a close encounter with real users of ERVs reveals shortcomings in various aspects, especially during varied conditions [1]. MOBI (Mobile Object Bus Interaction), a research project led by Laurea University of Applied Sciences, Finland. The project aims to explore the standardization process designing an emergency response vehicle and further develop the product concept with industrial partners. The real users and industry partners are focal points of the project. A further project also explores the potential of standardization process of the fields. Generated research data has been in use to create a demo vehicle with working integrated ICT systems.

Mingang Zeng | Gaohui Yu (2011) [11] Online rescue vehicle scheduling problem of emergency logistics Emergency logistics of natural disaster plays an important role in effectively controlling the casualties and reducing various disaster losses. The paper proposes k-rescue vehicles scheduling problem and considers this problem with a two-stage algorithm based on the online method. The first stage, the paper proposes online rescue vehicle allocation strategies which include the repositioning strategy, the lie over strategy and the mixed strategy, and then analyses their competitive ratio. The second stage, this paper designs selection strategies of the online path which include the reposition strategy and the greedy strategy, and then analyses their competitive ratio. Finally, based on the analysis and calculation of an example, the results indicate that the above models and methods are effective.

Li - si Cao | Zi-xian-Liu (2011) [12] An emergency service centre location model for vehicle repair. Vehicle repair is an item of automobile warranty service. As an important effect of warranty quality, how to provide an effective service in a constrain time is attracting more and more attention. It is a solution to this problem by establishing an automobile emergency system.

III. PROBLEM STATEMENT

Vehicle Emergency Service System TO Provide Emergency Vehicle Services TO The User On Their Own Location.
Proposed Plan
In order to overcome the existing problem the vehicle emergency service system is employed.
In the proposed system of this project is to monitor the emergency problem related to the vehicle by using application.
 The user needs to register first on the vess system. After completing the registration now user can log in to the system and get benefits of the services. Same goes for the service provider, the service provider will also register on vess. After that, they will be able to login into the system. After login

They can add the services they will be providing.
When a user needs any services they will log in and directed to the services page from which they will choose the service for their vehicle and get the information of the entire service provider who is providing their requested service. As soon as the user selects any of the service provider users will get their contact information. After successful communication user will able to get the services and will be able to track the service provider and estimated time to reach to the user.

ALGORITHM:
Step 1: Open the application and log in.
Step 2: Select the location
Step 3: Select the appropriate services according to your vehicle condition.
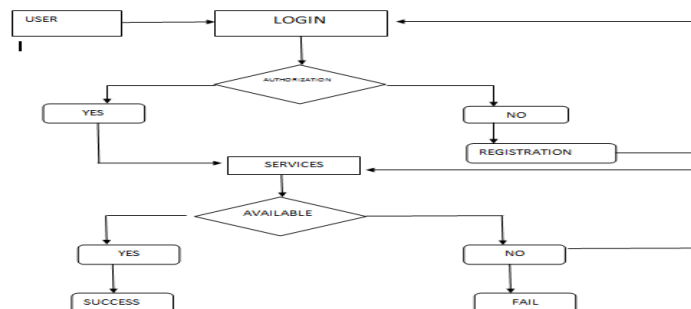Step 4: Send the request to the service provider.

Figure 2: Data flow Diagram

Step5: if (Service provider will accept the request and response to it.) goto step 7
Step 6: else goto step 2
Step 7: Service provider will solve the problem of the vehicle at user's location.
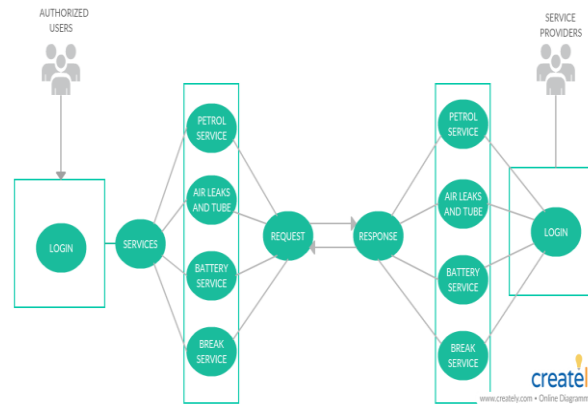Step 8: Logout the application.

Figure 3:Complete Reference Diagram of VESS System

IV. CONCLUSION

We have proposed an approach for the daily life problems of the vehicle that will definitely be more effective than our traditional approach. The future Vehicle renting service would be a great service as we sometimes can't afford the time to be taken on vehicle repair. In such cases, we can give our failed vehicle to the service provider and take another vehicle for rent from them and can continue our related work.

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