# SRI KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY

# VAN-D : BREAKDOWN SYSTEM

## Zeroth Review

**Mentor:**                                        **Presented By:**

**DHANASEELAN S**

**NIVAS P**

Dept. of M.Tech CSE                        **VAISHAK CJ**

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# ABSTRACT

On Road Vehicle Breakdown Assistance system Project can search for list of mechanic at any location or the nearby locations which will help them in an unexpected situations raised by the mechanical issues of their vehicles. Only the Trusted  mechanics can get listed here while the search. Road assistance for car . And there are available mechanic who can come and repair the mechanical issues in the users vehicle.

The Vehicle Breakdown Management System (VBMS) is a comprehensive software solution designed to streamline and enhance the efficiency of handling vehicle breakdown incidents. This system is specifically developed for projects where a fleet of vehicles is deployed, such as logistics, transportation, and construction projects. The primary goal of VBMS is to minimize downtime, improve response times, and facilitate effective communication during unexpected vehicle breakdowns.

# INTRODUCTION

The introduction immerses the reader in the intricate landscape of vehicular breakdown challenges, delineating the complexities that necessitate a state-of-the-art solution. It expounds upon the overarching goals and comprehensive scope of the project, emphasizing its potential to revolutionize incident management in the automotive domain.

The inner components are,

- Register – User has to register their basic details to get access with this application service.
- Login – Once they have registered they need to login to avail the service at the needy time.
- View Details – Logging in with the application will provide you the lists of mechanics that have the approval of the application.
- Search records & call – So that the users can search the mechanic among the list according to their place and time.
- Post feedback – After all the process every user has to give their feedback with this application to about their
- adopted service through this medium.

# LITERATURE SURVEY

| S.NO | PAPER | ANALYSIS |
|------|-------|----------|
| 1 | Recent Advances in Connected Vehicle Technologies for Roadside Assistance Systems<br><br>**IEEE Intelligent Transportation Systems Magazine (2019)** | This paper focuses on how connected vehicle technology (CVT) can improve roadside assistance systems. It explores topics like real-time vehicle diagnostics, automatic breakdown detection, and efficient dispatch of assistance vehicles. The paper discusses various CVT applications for breakdown assistance, including:<br>Vehicle-to-everything (V2X) communication: Sharing data between vehicles and roadside infrastructure to detect breakdowns and provide real-time updates on traffic conditions and available assistance resources. |
| 2 | Comparative Analysis of Mobile Applications for Vehicle Breakdown Assistance in Urban Areas<br><br>**IEEE Access by M. A. Naeem (2018)** | This paper compares different mobile apps designed to help drivers in case of breakdowns in urban areas. It evaluates factors like:<br>Ease of use: User interface design, responsiveness, and clarity of instructions.<br>Service availability: Geographical coverage, types of services offered (towing, fuel delivery, battery jumpstart, etc.), and response times.<br>Cost and payment options: Subscription fees, service charges, and payment methods.<br>User reviews: Ratings and feedback from real users. |

# LITERATURE SURVEY

| S.NO | TITLE | ANALYSIS |
|------|-------|----------|
| 3 | A Critical Review of Onboard Diagnostics (OBD) Systems for Predictive Maintenance and Breakdown Prevention<br><br>**IEEE Transactions on Intelligent Transportation Systems (2017)** | This paper examines the role of OBD systems in detecting potential vehicle problems before they lead to breakdowns. It discusses:<br>Different types of OBD devices and their data acquisition capabilities.<br>Limitations of OBD systems, such as lack of access to certain sensors or inability to diagnose all types of problems.<br>Predictive maintenance algorithms and their effectiveness in identifying potential failures based on OBD data. |
| 4 | Fault Detection and Location in Electric Vehicles Using Data Analytics and Machine Learning<br><br>**Imaging for Crime Detection and Prevention (ICDP 2013)** | This paper focuses on the unique challenges of diagnosing and predicting breakdowns in electric vehicles (EVs). It explores how data analytics and machine learning algorithms can be used to analyze data from various EV sensors, including battery, motor, and power electronics, to detect potential faults and predict impending breakdowns. T Fault detection algorithms: Identifying anomalous behavior in sensor data that could indicate a developing problem.<br>Predictive maintenance models: Forecasting future failures based on historical data and real-time sensor readings. |

# LITERATURE SURVEY

| S.NO | TITLE | ANALYSIS |
|---|---|---|
| 5 | Multi-Agent Reinforcement Learning for Dynamic Dispatching of Roadside Assistance Vehicles<br><br>**IEEE Trans. Intell. Transp (2022)** | This paper tackles the challenge of optimizing the dispatch of roadside assistance vehicles in real-time. It proposes a multi-agent reinforcement learning (MARL) algorithm that considers various factors such as:<br>Location of breakdowns.<br>Available resources (tow trucks, mechanics).<br>Traffic conditions.<br>Priority criteria (severity of breakdown, type of vehicle).<br>The MARL agents learn through trial and error, adapting their dispatch decisions based on feedback from the environment. This approach aims to reduce response times, maximize resource utilization, and improve overall efficiency of roadside assistance services. |

# EXISTING SYSTEM

## Admin

**Dashboard:** In this sections, the admin can briefly view the total driver, total new request, total approved request, total rejected request by admin, total driver on the way request, total completed request.

**Driver:** In this section, admin can manage the driver(Add/Update).

**Pages**: In this section, admin can update about us and contact us pages.

**Requests:** In this section, admin can view the booking request and the admin also has the right to change booking status according to current status and give his/her remarks.

**Driver Response:** In this section, admin received the information of the vehicle which is assisted by the driver.

**Search:** In this section, admin can search a particular booking detail by booking number, name, and mobile number.

**Report:** In this section, admin can view between dates appointment reports and driver-wise reports according to dates.
Admin can also update his profile, change the password and recover the password.

# PROPOSED SYSTEM

## Driver

**Dashboard:** In this sections, the driver can briefly view the total new assign requests, total completed requests, and total in-progress requests.

**Assign Booking:** In this section, the driver can view the booking request which is assigned by the admin and the driver has the right to change the request status according to the current status.

**Search:** In this section, driver can search a particular booking request detail by booking number, name, and mobile number.

**Reports:** In this section, the employee can view how many booking requests have been assign, how many booking requests have been completed and how many booking requests have been pending on his/her end. The driver can also update his profile, change the password and recover the password.

## Users :

In this application, the user does not need to register himself/herself they only fill a single form for vehicle assistance.

# TECHNOLOGY STACK USED

**Front End**

- Html
- Css
- Java Script

**Back End**

- PHP
- MySQL

**Software Requirement**

- WAMP Server
- XAMPP Server
- MAMP Server
- LAMP Server

Thank You!