**A Project Synopsis Submitted to the**

**Dr. Babasaheb Ambedkar Technological University, Lonere**

**For the Degree of Bachelor of Technology in**

**Computer Science & Engineering**

**Under the Faculty of Engineering**

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**Sahakar Maharshi Shankarrao Mohite-Patil Institute of Technology & Research, Shankarnagar - Akluj**
**Year 2024-2025**

## SYNOPSIS FOR PROJECT

**Name of the College** : **Sahakar Maharshi Shankarrao Mohite-Patil Institute of Technology & Research, Shankarnagar – Akluj**

**Name of the Department** : **Computer Science and Engineering**

**Name of the Course** : **L.Y.B.Tech.(Computer Science & Engineering)**

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**Proposed Mini Project Title : " Online Mechanic Finder "**

# Abstract

The Online Mechanic Finder is a web and web-based application designed to connect vehicle owners with nearby mechanics in real time. The platform enables users to locate verified mechanics based on location, service type, ratings, and availability. This project addresses the inconvenience of searching for reliable roadside assistance, especially during vehicle breakdowns in unfamiliar areas. Using geolocation, service filtering, and user reviews, the system ensures fast and trustworthy service access. The objective is to enhance user convenience, reduce wait times, and promote transparent service delivery in the automotive repair sector.

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# Introduction

The Online Auto Mechanic Finder is a modern digital platform created to help people easily find nearby car or bike mechanics in times of need. In today's fast-moving world, vehicle breakdowns can happen anytime, anywhere. Finding a reliable and available mechanic, especially in a new or unfamiliar location, can be a difficult and time-consuming task. This system aims to solve that problem by providing a web-based solution that works on both smartphones and computers. Using GPS technology, it locates the user's position and displays a list of available mechanics nearby. The platform also shows helpful information like the mechanic's name, contact number, service types, ratings, reviews, and availability.

The user can choose a mechanic based on location, rating, or services offered. The platform also allows direct communication with the mechanic, making it easy to explain the problem and request help. Whether it is an emergency or a regular repair need, users can quickly get the help they need without wasting time. On the other side, mechanics can register on the platform, create a profile, and list their services. They can update their working hours, availability, and respond to customer requests. This helps mechanics reach more customers and grow their business. Overall, the Online Auto Mechanic Finder is a user-friendly, time-saving, and reliable system that benefits both customers and service providers. It improves the experience of vehicle maintenance and emergency assistance through the power of technology.

# Background

In today's fast-paced world, vehicles have become a basic need for travel and transport. But when a car or bike suddenly breaks down, especially in unknown places or at odd hours, finding a good and trusted mechanic becomes a big problem. People often waste time asking around or searching randomly, which causes stress and delay.

To solve this issue, the idea of an Online Mechanic Finder came up. With the help of the internet and GPS, this system helps people quickly locate nearby mechanics through their phone or computer. Instead of waiting or searching manually, users can get all mechanic details in one place like their contact info, ratings, and services.

This platform also helps mechanics by giving them a way to reach more customers and manage their work online. It creates a win-win situation for both vehicle owners and service providers.

# Literature Review

Akhila V. Khanapuri [1] discussed the increasing number of vehicles, accidents, and breakdowns on roads. She focused on balancing fuel efficiency and vehicle health while providing timely breakdown assistance. Her study proposed an Android app that connects to the vehicle's OBD-II system to monitor key metrics. The app helps guide drivers on gear shifts and assists during breakdowns. Expanding on this, an online mechanic finder could further help by locating nearby services when issues arise.

Khoo Jin Sheng [1] studied car breakdown incidents to assess how helpful a support system could be. The research reviewed existing service apps to find their flaws. Based on this, a Car Breakdown Service Station Locator system was proposed. It connects car owners with nearby repair service providers (CRSP) through mobile devices. When a breakdown occurs, users can report the location, and the system helps them contact the nearest CRSP for quick assistance.

Sanyog Atmaram Porji [1] introduced the E-Mechanics app to help users find nearby mechanics during vehicle breakdowns. The system includes separate apps for customers and mechanics, connected through a global server. Mechanics register with verified documents, and users can access features like emergency alerts and chat support.

# Problem Statement

Many people face trouble when their car or bike suddenly breaks down, especially in new or remote areas. It becomes difficult and time-consuming to find a nearby, trusted mechanic. In emergency situations, this delay can cause a lot of stress and inconvenience. There is no easy way to search, compare, or contact mechanics quickly through a single platform. On the other hand, many local mechanics also struggle to reach new customers or grow their business due to a lack of online presence. There is a gap between people who need quick help and mechanics who are available but hard to find.

To solve this problem, there is a need for an online system that connects vehicle owners with nearby mechanics based on location, service type, and availability.

# Objective

The objective of an online mechanic finder is to provide a platform that helps car owners easily locate trusted, reliable, and skilled mechanics or auto repair services in their area. This service can aim to:

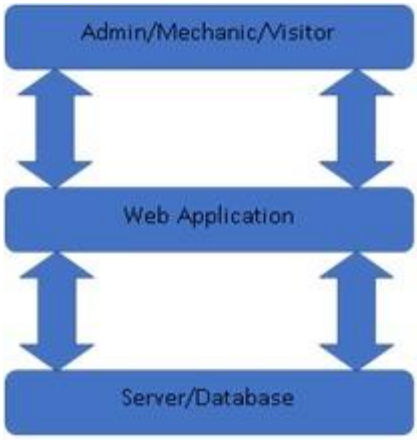
1. **Convenience**: Make it easy for car owners to search for nearby mechanics based on their specific needs, such as type of repair, service ratings, availability, or pricing.
2. **Transparency**: Offer reviews, ratings, and detailed profiles of mechanics to help customers make informed decisions.
3. **Access to Expertise**: Connect car owners with mechanics who have the necessary experience and specialization for their vehicle model or the specific repair needed.
4. **Time-Saving**: Save time by allowing users to schedule appointments, check availability, and compare prices all in one place.
5. **Trustworthiness**: Build a trusted network of certified, insured, and reputable mechanics to ensure quality service and customer satisfaction.

# Scope

This Online  Mechanic Finder System will allow users to check and send request to different auto mechanics located in their areas. This project will contain complete list of auto mechanics and shop details displayed in several categories and the user can browse through that. User can search for the mechanic shop. User needs to register on the site before sending request to mechanic. He can then login using same user name and password next time. User may pay cash at the spot.

# Methodology

Represents a **three-tier methodology** used for a project involving user interaction, web-based processing, and backend data management.




**1. User Layer (Admin / Mechanic / Visitor):**

- This is the **front-end interface** of the system where different types of users (Admin, Mechanic, and Visitor) interact with the application.
- Each user role has different levels of access and functionality:
    - **Admin**: Full access to manage users, data, and system settings.
    - **Mechanic**: Limited access for operational tasks and maintenance logging.
    - **Visitor**: Restricted access, possibly for viewing or submitting requests.

**2. Web Application Layer:**

- Acts as the **middle layer** of the system.
- This is the **core application logic** that processes requests from users.
- It validates input, manages sessions, and orchestrates the interaction between users and the database.
- Technologies here could include HTML/CSS/JavaScript for the front-end, and backend logic using languages like PHP, Python, Java, or frameworks such as Django, Flask, or Node.js.

**3. Server / Database Layer:**

- The **backend layer** where all data is stored and retrieved.

- Includes the **database server** (like MySQL, PostgreSQL, or MongoDB) and possibly **application servers**.
- Handles data management tasks such as CRUD (Create, Read, Update, Delete) operations.
- Ensures secure and efficient storage of user information, logs, and system configurations.

**Interaction Flow:**

- **Bidirectional arrows** between each layer indicate continuous interaction:
    - Users send input through the Web Application.
    - The application processes the input and interacts with the Server/Database.
    - Data is fetched/stored and responses are sent back through the application to the users.

# Conclusion

The Online Mechanic Finder is a useful and practical platform that helps people find nearby mechanics quickly and easily. It saves time, reduces stress, and provides a smart solution during vehicle breakdowns or regular repair needs. By using GPS and online tools, users can connect with trusted mechanics without any hassle. At the same time, it helps mechanics reach more customers and grow their business. This system creates a smooth connection between service seekers and providers. Overall, it makes vehicle repair services more convenient, fast, and reliable for everyone.

# References


1) https://www.ijcrt.org/papers/IJCRT1892948.pdf
2) https://ijirt.org/publishedpaper/IJIRT169859_PAPER.pdf
3) https://ijarsct.co.in/Paper3317.pdf

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