IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 5, Issue 7, April 2025
Impact Factor: 7.67

EASEMAINTAIN: A Smart Service Platform for Digitalization of Maintenance and Rehabilitation Processes

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Abstract: *The growing demand for efficient infrastructure maintenance and rehabilitation has emphasized the need for smart, technology-driven solutions. This project proposes the development of a comprehensive (EASEMAINTAIN) online platform designed to streamline the process of reporting, managing, and executing maintenance and rehabilitation services across various infrastructure sectors, including buildings, roads, and utilities. Traditional methods often suffer from delays, lack of coordination, and inefficient resource utilization. The proposed platform addresses these issues by integrating modern technologies into a centralized system.*

The platform will feature intuitive, user-friendly interfaces tailored for both clients and service providers. Clients, such as facility managers or the general public, can easily report issues through a web or mobile application by submitting descriptions, photos, and locations of defects. Service providers can access a dashboard to view incoming requests, assign tasks, and update progress in real time. The platform also enables real-time tracking of service requests, ensuring transparency and accountability throughout the process.

Additionally, the system incorporates automated scheduling to optimize workforce deployment and reduce response times. Built-in data analytics tools will analyze historical and real-time data to support predictive maintenance planning, helping to identify recurring issues and prioritize interventions before critical failures occur. By leveraging cloud technology and secure data storage, the platform ensures scalability and reliability across regions and sectors.

This smart infrastructure maintenance solution aims to improve service delivery, reduce operational costs, and extend the lifespan of public and private assets. Ultimately, it contributes to more sustainable and resilient infrastructure management in line with modern urban development goals.

Keywords: EASEMAINTAIN

I. INTRODUCTION

In the modern era of rapid technological advancements, the demand for efficient, reliable, and data-driven maintenance and rehabilitation services has never been more critical. Traditional maintenance and rehabilitation processes, which often rely on manual scheduling, paper-based record-keeping, and reactive problem-solving, are becoming increasingly outdated. These conventional methods are prone to inefficiencies such as delays, miscommunication, lack of real-time data, and high operational costs. As industries and infrastructure continue to grow in complexity, a smarter, more integrated solution is necessary to ensure seamless service delivery, predictive maintenance, and optimal resource utilization.

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Objectives:

- To provide home service online platform to people
- To Make Services easy Accessible to people
- To create new opportunities via online platform

Scope of the Project:

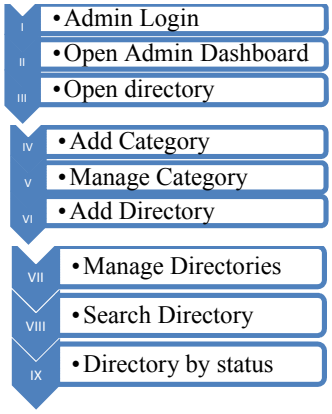
The scope of this project encompasses the development of a smart online platform dedicated to facilitating maintenance and rehabilitation services across various sectors. The platform will serve as a centralized digital solution connecting service providers with clients in need of routine maintenance, emergency repairs, and specialized rehabilitation services. It will include features such as user registration, service request forms, real-time tracking, scheduling, secure payment gateways, and feedback systems. Leveraging data analytics and AI, the platform will offer personalized recommendations, predictive maintenance alerts, and optimized resource allocation. It aims to enhance efficiency, transparency, and customer satisfaction while reducing downtime and operational costs. The platform will cater to residential, commercial, and industrial users, and support both web and mobile interfaces for wider accessibility. This project also involves establishing a robust backend for service management and integrating smart technologies to ensure seamless and proactive maintenance solutions.

II. EXPERIMENTAL SETUP

Sr. No.	Software Component	Details
1	Operating System	Windos10
2	Development Environment	Php
3	Programming Language	Php
4	Database	Mysql
5	Build Tool	php
6	Version Control	5.6

Platform structure flow analysis

Admin dashboard-



DOI: 10.48175/IJARSCT-25456

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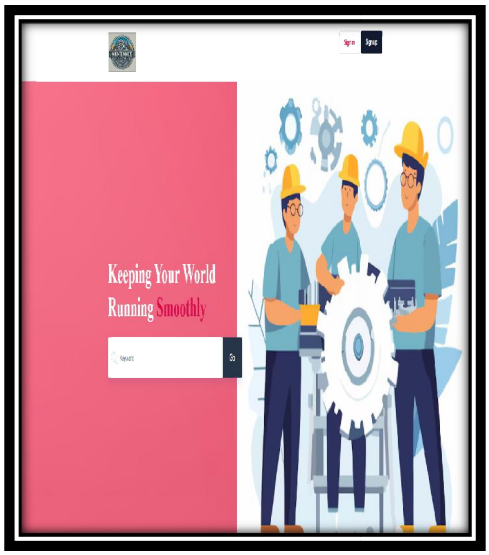
User dashboard-

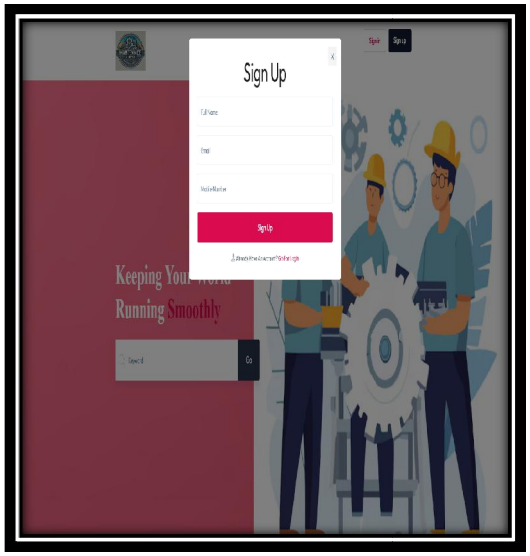
- I • User Dashboard
- II • sign up
- III • sign in
- IV • Login Dashboard
- V • Profile

III. RESULT

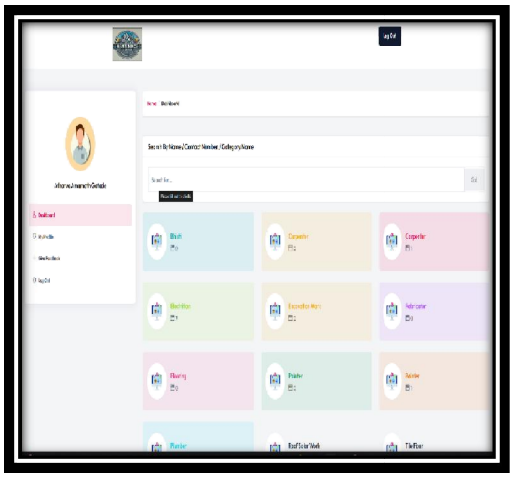
Login page



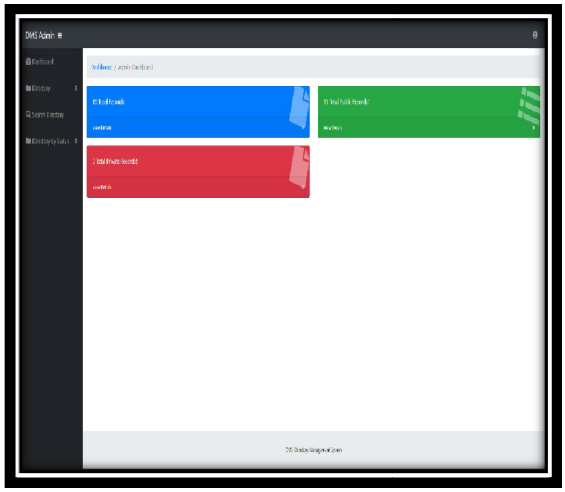
Registration Page



Home Screen



Navigation Drawer



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IV. CONCLUSION

The development of a smart online platform for maintenance and rehabilitation services represents a significant advancement in how such services are managed and delivered. By integrating modern technologies such as real-time tracking, automated scheduling, digital reporting, and data analytics, the platform enhances efficiency, transparency, and user satisfaction. It bridges the gap between service providers and clients, ensuring faster response times, optimized resource utilization, and proactive maintenance planning.

V. ACKNOWLEDGMENT

We must mention several individuals that were of enormous help in the completion and development of this work. Mr. M. S. Yadav our guide encouraged us to complete this microproject work. his continuous invaluable guidance throughout the course this study helped us to complete the work up to this stage and hope will continue in further work. I am also very thankful to HOD Mr. K. P. Mali for his valuable suggestions, critical examination of work during the progress, We are indebted to them. In addition, very energetic and competitive atmosphere of the Department of Civil Engineering had much to do with this project work. We acknowledge with thanks to faculty, teaching, non-teaching staff of department. I sincerely thank to Prof. Dr. H.S. Jadhav (Dean Diploma), for supporting us to do this work and we are very much obliged to him. Last but not the least; our parents and family, friends, constantly supported us for this work in all aspects

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