

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.

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