

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama" Belagavi – 590 010



PROJECT REPORT ON
“NETWORK SYSTEM FOR MANAGING SOLID
WASTE BY USING QGIS FOR LOCAL BODIES”

Submitted in partial fulfillment of the requirements for the award of degree

BACHELOR OF ENGINEERING
IN
CIVIL ENGINEERING

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CERTIFICATE

Certified that the project work entitled "NETWORK SYSTEM FOR MANAGING SOLID WASTE BY USING QGIS FOR LOCAL BODIES" has been successfully completed by

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The bonafide students of Department of Civil Engineering, Alva's Institute of Engineering and Technology in partial fulfillment for the award of BACHELOR OF ENGINEERING in **CIVIL ENGINEERING** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY BELAGAVI** during the year 2022-23. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of seminar work prescribed for the Bachelor of Engineering Degree.

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ABSTRACT

Solid waste management is a critical environmental challenge faced by urban areas worldwide. Improper waste disposal can lead to numerous environmental and health hazards, including pollution of air, water, and soil, and the spread of diseases. Waste collection plays a crucial role in the overall waste management process, and efficient routing of waste collection vehicles is essential to ensure timely and effective waste removal from communities.

This abstract focuses on the rerouting of waste collecting vehicles as a strategy to optimize solid waste management. The rerouting process involves planning and scheduling the routes followed by waste collection vehicles to collect waste from different locations in an efficient and sustainable manner. Various factors, such as the distance to be covered, the amount of waste to be collected, the capacity of the collection vehicles, and the availability of disposal facilities, need to be considered in the rerouting process. Efficient rerouting of waste collecting vehicles can result in several benefits, including reduced fuel consumption, decreased emissions, minimized collection time and costs, and improved service quality. Advanced technologies, such as geographic information systems (GIS), global positioning system (GPS) tracking, and optimization algorithms, can be utilized to optimize the rerouting process and enhance the overall performance of waste collection systems.

These abstract highlights the importance of rerouting waste collecting vehicles as a sustainable approach towards solid waste management. It emphasizes the need for effective planning and utilization of technological tools to optimize waste collection routes, reduce environmental impacts, and improve the overall efficiency of waste management systems. Proper rerouting of waste collection vehicles can lead to significant benefits for both the environment and the communities they serve, contributing to a more sustainable and healthier living environment.