



FINAL YEAR PROJECT REPORT

**CLEARZONE – FOCUSES ON CREATNG
CLEAN, WASTE-FREE
ZONES IN COMMUNITIES**

**In fulfillment of the requirement
For degree of
BS (COMPUTER SCIENCES)**

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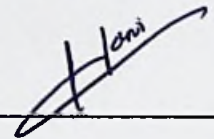
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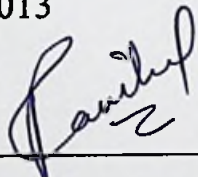
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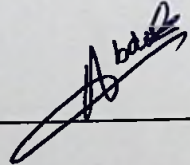
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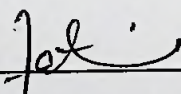
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APPROVAL FOR SUBMISSION

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CLEARZONE – FOCUSES ON CREATNG CLEAN, WASTE-FREE ZONES IN COMMUNITIES

ABSTRACT

The **ClearZone** project aims to create a useful waste management platform that bridges the gap between individuals and NGOs, fostering collaborative efforts for a cleaner environment. The platform integrates geolocation-based waste reporting, an NGO dashboard, user leaderboards, and a notification system to streamline waste management processes.

Significant progress has been made in deploying the waste classification model on Hugging Face, where it is publicly available. However, the integration of the model into the web application remains pending. The mapping feature, which visualizes waste locations, has been partially implemented and currently functions on one page. The notification system is yet to be fully developed and integrated, which will enhance user and NGO engagement by providing real-time updates on waste report statuses.

Key completed features include user and NGO authentication, profile management, waste reporting (without CNN-based auto-classification), and a partially functional geolocation module. Upcoming milestones involve finalizing the integration of the deployed model into the web app, expanding the mapping functionality to all relevant pages, and completing the notification module to provide a seamless user experience.

The project's overall structure and progress indicate its potential to significantly impact environmental sustainability by simplifying waste reporting and management. Once the pending tasks are completed, ClearZone will be a fully functional platform ready for real-world application.

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