IoT BASED SMART WASTE MANAGEMENT SYSTEM

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Certificate

We accept the work contained in this report as a confirmation to the required standard for the partial fulfilment of the degree of BS(EE).

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Head of Department Supervisor

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Dedication

We dedicate this project to our parents who have been great source of inspiration and never-ending support to us. We also dedicate our work to **Adil Ali Raja** who encouraged us to build our motivations and at last but importantly to our friends, brothers and sisters who helped us and supported us throughout the journey of learning.

Acknowledgement

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Owing the report, we would like to express our greatest regard and earnest appreciation to our Project Supervisor Adil Ali Raja for his constant encouragement, comprehensive advice and his kind supervision till this project came into existence.

Abstract

Majority of the times, trash bins placed in open areas are over-burdened. This results in unhygienic living conditions for the people residing in the area and also gives a bad look to that area. It also plays a role in spreading diseases like dengue and chikungunya. To cater this problem, a module is designed that monitors the level of bin. The device is IoT based since the sensors in the bin are communicating with the server online. These bins are integrated with microcontroller-based framework that contains ultrasonic sensors and wireless transmitter to establish a communication link in between sensors and the server, which hosts the database, and stores all the transmitted data. This data can be further accessed using the website and mobile application for real-time monitoring. This system also provides Route Optimization using google maps in order to efficiently utilize fuel.

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