

PROJECT ABSTRACT

Year : II B.Tech - ECE

Date:

Section: A

Project Batch No: 11

Title of the Project: Smart dustbin Using Arduino and Ultrasonic Sensor

Abstract:

In urban areas, inefficient waste management often results in overflowing bins and environmental pollution, posing significant challenges to municipal authorities. To address this issue, our project introduces a Smart Dustbin system utilizing Arduino microcontroller technology and ultrasonic sensors. This innovative system continuously monitors fill levels in real-time, promptly alerting the municipality when bins approach capacity thresholds. Additionally, the automated lid opening feature enhances user convenience and promotes efficient waste disposal practices.

Moreover, our Smart Dustbin system incorporates a robust contingency plan to tackle emergencies effectively. In instances where nearby bins reach maximum capacity, the system promptly notifies authorities to ensure uninterrupted waste disposal operations. This proactive approach enhances the reliability of the system, enabling it to adapt to unforeseen circumstances and maintain optimal waste management practices. By harnessing the capabilities of Arduino and ultrasonic sensor technologies, our Smart Dustbin system offers a practical solution to address the challenges associated with overflowing bins and pollution. With features such as real-time capacity monitoring, automatic lid opening, and robust emergency plans, our system enhances effectiveness and reliability, thereby fostering cleaner and more sustainable urban environments.

Signature of the students with name & Regd.No

Signature of the Guide

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