

# Automated Waste Segregation with Real Time Notification System

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**Abstract:** The "Smart Waste Segregation and Management System" is a cutting edge solution designed to improve waste handling and recycling efficiency. Utilizing advanced sensor technology, the system detects, classifies, and sorts waste into appropriate sections based on material type, such as plastic or dry waste. The dustbin is equipped with capacitive sensors to identify plastic and moisture sensors to detect wet and dry materials. Additionally, it uses an ultrasonic sensor to monitor the fill level, triggering real-time SMS alerts to recycling companies and government authorities when full. Integrated with an Android application, the system allows users to log complaints via QR codes if waste remains uncollected, enhancing accountability.

**Keywords:** Smart Waste Segregation and Management System

