

LITERATURE SURVEY

ABSTRACT:

In this project, a system is introduced to manage the problem of unorganized and non-systematic waste collection is solved by designing an embedded IoT system. For detecting the presence of any waste IR sensor can be used. The containers are embedded with ultrasonic sensors at the top, makes it possible to measure the amount of waste in the containers. Design of a Waste Bin with real time monitoring is presented and a smart waste management system is proposed using the recent technical advancements of automation and Internet of Things (IoT). smart bins are connected to the cloud, where the bin status are communicated, recorded and monitored by the local bodies through and android app or a centralized server.

Keywords: IoT, Waste Management, Smart waste bin, Ultrasonic sensor, Cloud .

OBJECTIVE:

- To reduces the total number of trips of garbage collection vehicle and hence reduces the overall expenditure associated with the garbage collection.
- To makes the garbage collection more efficient the use of IoT in such systems to improves the efficiency.
- To give way to clean city and better infrastructure which helps to increase the hygiene of the society.

EXISTING SYSTEM:

- A smart and organized system is designed for selective clearing
- The ultrasonic sensor is used for measuring the level of waste in the dumpster
- DC motor powered platform is used for segregating wet and dry waste
- IR sensor and moisture sensor is used for separating wet and dry waste.
- If either of the containers is full then an alert message is sent from the dumpster.
- In turn, employees can clear the corresponding dumpster.
- All these sensors are connected to an Arduino Uno board.
- It can be used for controlling all mechanical setup based on current conditions.

PROPOSED SYSTEM:

- 24x7 monitoring system is designed for monitoring dumpsters.
- A Mobile Application for raising requests to collect/remove solid waste in a public community.
- Public participation in raising requests for solid waste collection/removal through the mobile application.

- Provides scope for citizens to raise a complaint to the municipality bodies.
- Users can keep track of the current status of their complaints.
- All the complaints raised by the public are distributed by the authority to the different groups of workers.
- Provides the best route plan for municipal workers for garbage collection effectively.
- Administrator can monitor all the complaints that are raised by the user.

FEATURES:

- Management of solid wastes by providing visibility on city sanitation.
- Maximizing the collection of solid waste.
- Route planning for garbage collection, and resource optimization.
- Receiving people's complaints and providing compliant resolved status.
- To improve society's responsibility in social activities & services.
- To help municipal bodies maximize solid waste collection.

CONCLUSION:

This project is very effective in managing waste in any big city. Rather than using conventional periodic collection methods here priority system is used to the city is clean all the time without any overflowing dumpsters. In most of the metro cities globally poses a challenge on effective waste solid waste management and maintenance of the waste bins. In this project, an IOT enabled Smart Waste Bin with real time monitoring system. This system could find an application in smart buildings where the waste management could be practiced autonomously in a smarter way.

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