GREEN CHENNAI

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ABSTRACT

This project is based on IOT garbage monitoring system will help to monitor bins and inform about the level of garbage collected in the dustbin. Need to create an application.

The android Application "Green Chennai" where there will be certain a feature in the application.one of the feature would be to get an automatic notification to application from the bin after sensing the exceeded limit of garbage in dustbin.

Another feature is entering your location through GPS so that people can complain about the garbage near their locality on which no one pays attention. After entering the location one can get the contact number in the near area of the private garbage collectors.

In this way, all can come together to participate for creating a hygienic place.

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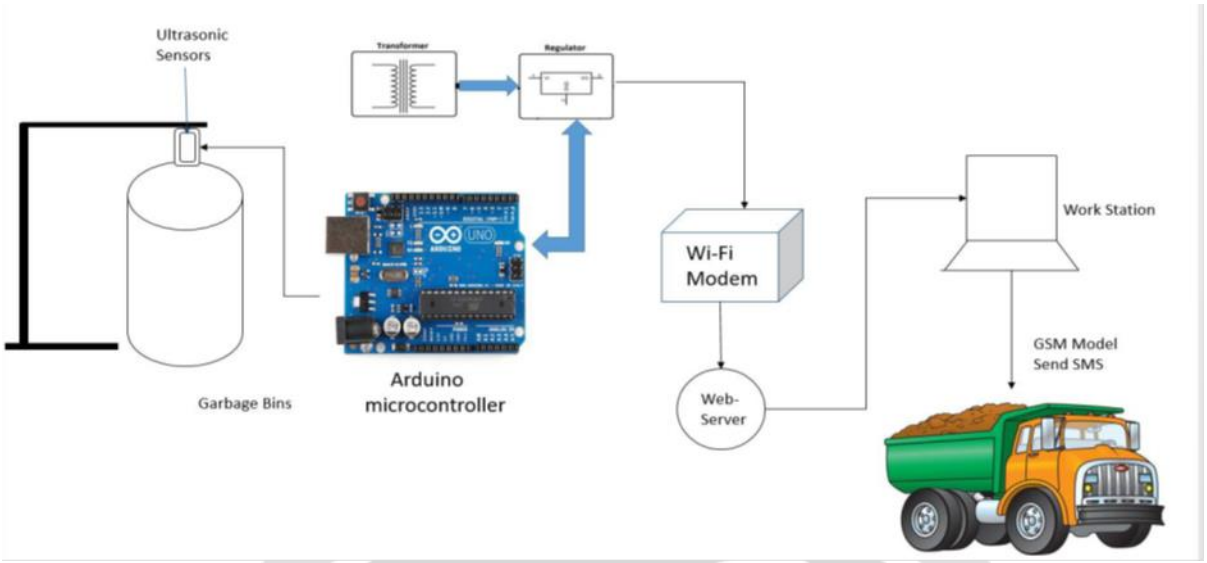
1. INTRODUCTION

Garbage Monitoring System: - Garbage may consist of the unwanted material Left over from City, Public area, Society, College, home etc. This project is Based on "Internet of Things" (IOT). So for smart lifestyle, cleanliness is Needed, and cleanliness is begins with Garbage Bin. This project will help to minimize the garbage disposal problem. The Internet of Things (IOT) is a recent Communication paradigm that envisions near future, in which the objects of Everyday life will be equipped with microcontrollers, transceivers for digital Communication, and suitable protocol stacks that will make them able to communicate with one another and with the users, becoming an integral part of the Internet [1]. This project IOT Garbage Monitoring system is a very innovative system which will help to keep the cities clean. This system Monitors the garbage bins and informs about the level of garbage collected in the garbage bins via a web application. For this the system uses ultrasonic Sensors placed over the bins to detect the garbage level and compare it with the garbage bins depth. The system makes use of Arduino family Microcontroller, Wi-Fi modem for sending data and a buzzer. The system is by a 12V transformer. Whereas application is built to show the status.

2. System Analysis

Today, automation is being practiced extensively on all the core industries to reduce the manual effort that is going into the production process. As automation greatly helps in reducing the errors and increases the efficiency of production, many core industries are starting to adapt these systems onto their operations.

With the advancement in IOT, industries will be able to control or operate various equipment, machinery, automate industrial processes and other applications using various control systems with very less or no human intervention.



2.1 Existing system

As we have seen number of times the dustbins are getting overflown and concern person don't get the information within a time and due to which Unsanitary condition formed in the surroundings, at the same time bad smell Spread out due to waste, bad look of the city which paves the way for air? Pollution and to some harmful diseases around

2.2 Disadvantages of existing system

- Ensuring the ultrasonic sensor is correctly placed.
- Need to design water proof electronic and embedded software.
- Need to make it theft proof.
- Time consuming and less effective: trucks go and empty containers whether

they are full or not.

- High costs.
- Unhygienic Environment and look of the city.
- Bad smell spreads and may cause illness to human beings. .

3. Proposed System

The proposed system is very simple. We have observed that the municipal officer or the government authorized person will monitor the status of dustbin. Or generally we see that they have a regular schedule of picking up these garbage bins or dustbins. This schedule varies as per the population of that place. It can be once in a day or twice in a day or in some cases once in two days. If bin is overflowing then, system displays details of empty bins nearby. If in such cases the garbage dustbin gets immediately full and then it overflows which creates many problems. So in such situations, with help of our project the government authority person can get SMS immediately Recent Advances in Technology and Engineering, Department of Computer Science and Engineering, T John Institute of Technology, Bangalore, Fig. System Architecture The above diagram indicates the rough idea of the system

designed. Here, design explains that different dustbins are placed in the nearby places where, each dustbin has sensors connected to it. Here raspberry pi is the one which acts as a small CPU. Sensors will send the signals to the monitoring unit via raspberry pi. Also the levels of the threshold will be continuously checked out. Once the level crossed message will be triggered to monitoring unit. If not monitoring process will be continued.

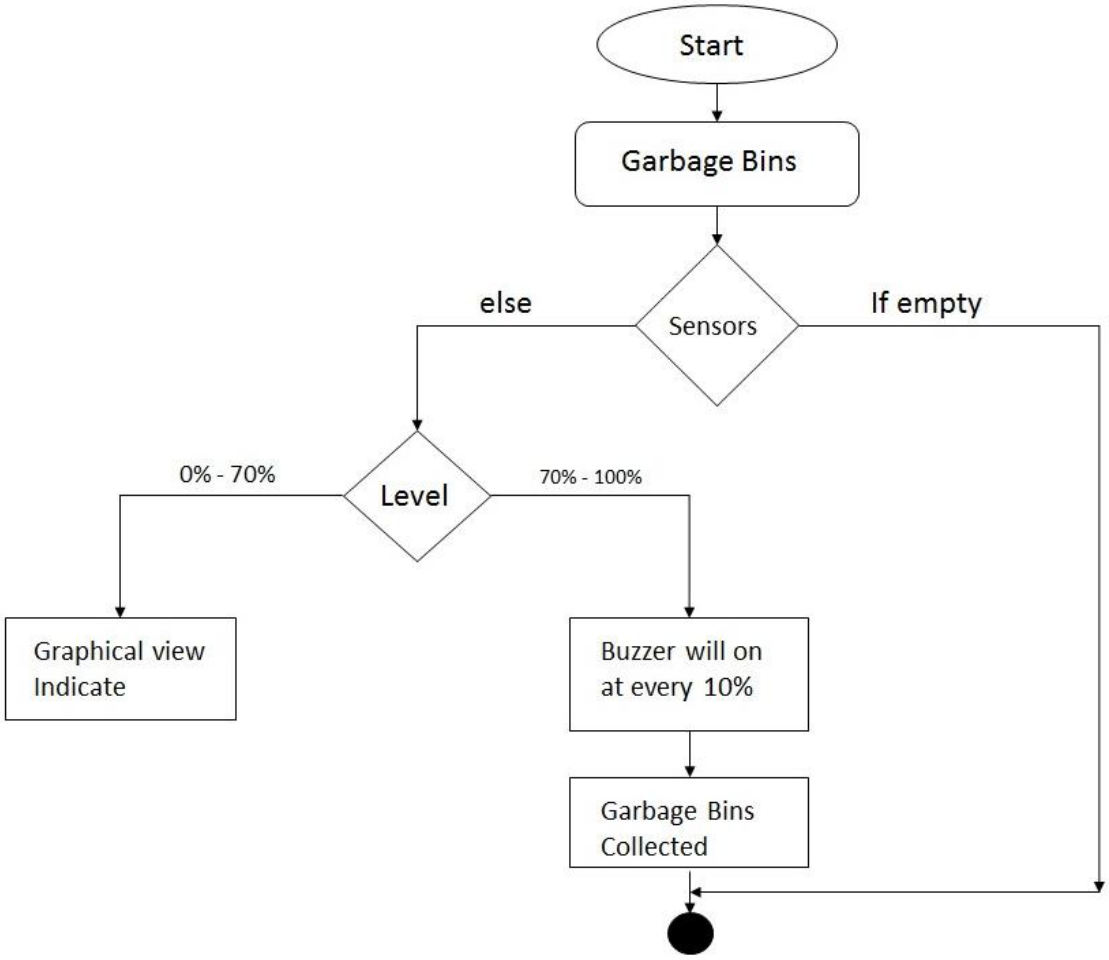
Mobile application

Sensors

Cloud storage

It will send an automatic notification to an

Trash collector as soon as the garbage limit exceeds certain limits.



3.1 Advantage of proposed System

Informs about the level of garbage collected in the garbage bins.

- It will excessively reduce the cost .

- Efficient and effort are less in this system.
- People will get a platform to give information about garbage accumulation in
- Locality by entering their location.
- Real time information on the fill level of the dustbin.
- Deployment of dustbin based on the actual needs.
- Cost Reduction and resource optimization

4. CONCLUSIONS

We have implemented real time waste management system by using smart Dustbins to check the fill level of smart dustbins whether the dustbin are full or not. In this system the information of all smart dustbins can be accessed from anywhere and anytime by the concern person and he/she can take a decision accordingly. By implementing this proposed system the cost reduction, resource optimization, effective usage of smart dustbins can be done. This system indirectly reducing traffic in the city. In major cities the garbage collection vehicle visit the area's everyday twice or thrice depends on the population of the particular area and sometimes these dustbins may not be full. Our System will inform the status of each and every dust bin in real time so that the concerned authority can send the garbage collection vehicle only when the dustbin is full. The scope for the future work is this system can be implemented with time stamp in which real-time clock shown to the concern person at what time dust bin is full and at what time the waste is collected from the smart dustbins.

5. ACKNOWLEDGEMENT

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6. REFERENCES

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IOT Based Dumpster Monitoring using Arduino & ESP826