

IOT BASED GARBAGE MONITORING SYSTEM

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Abstract: In today's busy world time is a vital issue which can't be managed by noticing each and every phenomenon with our tight schedule. So now a day's Automatic systems are being preferred over manual system to make life simpler and easier in all aspects. To make it a grand success Internet of Things is the latest internet technology developed. The number of users of internet has grown so rapidly that it has become a necessary part of our daily life. Our matter of concern in this project is development of Internet of Things based Garbage Monitoring System.

As the population of world is increasing day by day, the environment should be clean and hygienic for our better life leads. In most of the cities the overflowed garbage bins are creating an obnoxious smell and making an unhygienic environment. And this is leading to the rapid growth of bacteria and viruses which are causing different types of diseases. To overcome these situations efficient garbage collection systems are getting developed based on IoT. Various designs have already been proposed and have advantages as well as disadvantages. It's a review of Garbage Monitoring System based on IoT. This technology is implemented through the arduino uno board, buzzer, ultrasonic Sensor, wifi - module.

Keywords: Internet Of things, arduino uno, buzzer, ultrasonic sensor, wifi

I. INTRODUCTION

Through the world is in a stage of up gradation, there is yet another problem that has to be dealt with. Garbage pictures of garbage bins being overfull and the garbage being spilled out from the bins can be seen all around. This leads to various diseases as large number of insects and mosquitoes breed on it. A big challenge in the urban cities is solid waste management. Hence, smart bin is a system which can eradicate this problem or at least levels. This paper gives us one of the most efficient ways to keep our environment clean and green. Dustbin is a common means and a basic need everywhere. It is observed that often the garbage get collected due to irregular removal of garbage present in the dustbin. In the proposed paper, a new model for the municipal dustbins which intimates the centre of municipality for immediate cleaning of dustbin has proposed.

II. PROBLEM STATEMENT

To design an automated system to overcome problem of manual garbage collection process through the garbage monitoring system.

III. DESIGN

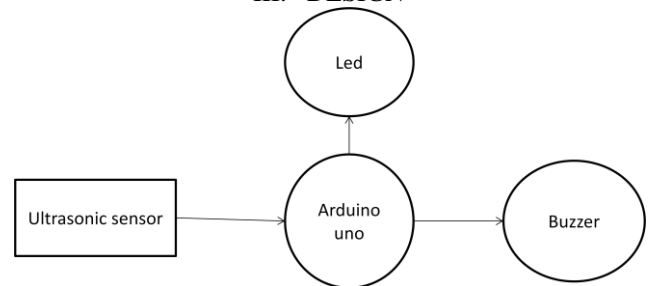


Fig 1: Data Flow Diagram(entire process)

IV. IMPLEMENTATION

Initially through the arduino board ultrasonic sensor connected by connecting echo to pin 8 and trig to pin 9 and buzzer connected to pin no 4 and led bulb connected to pin 7 to these code is written in arduino ide. Ultrasonic sensor is connected to the bins it measures on the distance of the object/garbage if the distance is more then it displays as empty and if it is less it shows as bin is full.

V. CONCLUSIONS

Various features such as durability, affordability, prevention against damage and maintenance issues are addressed when these smart dustbins are designed. This smart dustbin can contribute a lot towards clean and hygienic environment in building a smart city. But since the technology is new in India, proper awareness should be created among the public before it is implemented on a large scale. Otherwise, sensitive devices like sensors might be damaged due to rough action of the users.

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