Literature Review

Smart Garbage Van Tracking and Alert System [Group 6]

SMART CITY WASTE MANAGEMENT SYSTEM USING GSM

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In this paper development of Smart City concepts is intended to improve living in urban areas by using innovative technologies. The "Internet of Things" provides new opportunities for making cities smarter. There are few garbage bins placed in cities which are overflowing and it checked by local authorities there are all types of garbage all disposed in bins and it is dumped together. The new concept of waste management disposal using automatic garbage level detecting from ultrasonic sensors is introduced and it will provide real time information about dustbins which is situated city. The garbage dustbins are filled ,this information can be send to the concerned authority person to clean the dustbin's is now back bone of communication system which is low cost and high performance device and easy to implement. And another application used in this system is GPS. GPS will show the location of the dustbin. the working of GSM message signal when the dustbin is 90% filled. The targeted waste module is given. Collection saves time, money, and fuel and also reduces exhaust Gas emissions and noise levels for local residents. Garbage truck tours can be reduced by 30 %.

AUTOMATIC GARBAGE FILL ALERTING SYSTEM

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In this system they have placed the ultrasonic sensor in top of the garbage bin. If dustbin reach in 75% then Arduino send message through GSM module. When dustbin level is reach threshold level buzzer will give alert sound for don't again put waste in dustbin. This all process updated in IOT GECKO platform for monitoring garbage bin.

The existing system has some disadvantages:

- Time consuming and less effective: trucks go and empty containers whether they are full or not.
- High costs.
- Unhygienic Environment and bad look of the city.
- Bad smell spreads and cause illness to human beings.

To overcome the above disadvantages, new system was proposed here.

Considering the need of modern-technology the smart garbage bin can be expensive but considering the amount of dustbins needed in India, expensive garbage bin would not be a prior experiment that is why Ultrasonic sensors are used to reduce its cost and also makes it more efficient in applications. Also, we can use this Piezoelectric Device and take the power supply from this device

- We can get electric power very easier in a low cost.
- Real time information on the fill level of the dustbin.
- Cost Reduction.
- Improves Environment quality.

IOT BASED SMART GARBAGE ALERT SYSTEM USING ARDUINO UNO

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In this paper the process is aided by US sensors interfaced by ARDUINO UNO. US-sensor emits sonar waves which measures the empty space in the bin. By interconnecting the US sensor with the Arduino ,it sends an alert message to the municipal web server when the bin is filled.

This system is the implementation of smart garbage management system using US sensor, microcontroller and GSM module. This system assures the cleaning of dustbins soon when the garbage level reaches its maximum. This reduces the total number of trips of garbage collection vehicle and hence reduces the overall expenditure associated with the garbage collection. It ultimately helps to keep cleanliness in the society. Therefore, the smart garbage management system makes the garbage collection more efficient. Such systems are vulnerable to plundering of components in the system in different ways which needs to be worked on.