Abstract

Today, Waste management has been a major issue around the globe. Management of waste, proper disposal and recycling the same has been an important challenge for the various governments. The most common way of managing waste is keeping the plastic bins around the streets of the cities, but a major issue in using this approach is that the bins aren't unloaded often as they get filled up, most of the bins are flooded due to heavy disposal of wastes in them. Due to which it creates an unhygienic environment spreading diseases in the surrounding area. To overcome this situation, We have proposed an IoT based Smart City Bin, which is generally a dustbin embedded with sensors. The main purpose of our "Smart City Bin" is to send alert SMS to municipal corporation persons when the bin gets filled with waste using the GSM module interfaced with a microcontroller embedded into the bin. As soon as the municipal corporation person receives the SMS alert he/she will send the garbage collector from the specific area to unload the bin. The main purpose of this approach is the develop a smart city containing "Smart City Bin" using IoT devices.
References

1. Survey on IOT based Smart City Bin, IJCA, Roshni Bhandari, Singh Nidhi, Rathod Swapnil, Desai Dhruvi, Kotadiya Harsh, October 2019
2. IoT based solid waste management system for smart city, Research Gate, Prashant Mulay, June 2017
3. store.arduino.cc/usa/arduino-uno-rev3
4. components101.com/ultrasonic-sensor-working-pinout-datasheet
5. graylogix.in/gpssheildskg13
6. researchdesignlab.com/gsm-sim-900
7. robu.in/product/towerpro-sg90-9g-mini-servo-9-gram

Index Terms

Computer Science Circuits and Systems

Keywords

IoT, Waste Management, GSM Module, Microcontroller.