

## **REPORT 4**

### **PROJECT TITLE :**

### **SMART WASTE MANAGEMENT SYSTEM FOR METROPOLITAN CITIES**

### **DOMAIN : IOT**

### **TEAM MEMBERS:**

**1. Mughilan V**

**2. Rahul R**

**3. Nithish kannan  
V**

**4. Pari  
Yogeshwaran**

### **MENTOR NAME :**

**B.JEYAPOORN  
IMA**

## **BRAINSTORMING IDEAS**

By **Mughilan V**,

The idea is to produce a stable equipment of weighing sensors and other communication- IoT devices to create a best and efficient Smart-Waste Management System.

The idea includes, initially-building a stable and durable stand to which the weighing and communication sensors/devices are added and are used to update and send the information to the nearest waste collector. The normal dustbins are inserted into the stand and removed as needed. The communication sensor consists of applications including giving notification to the waste collectors about the weight and capacity of the dustbin that is filled.

By **Nithish kannan V**,

Smart net bin is an ideology put forward which is a combination of hardware and software technologies i.e. connecting Wi-Fi system to the normal dustbin in order to provide free internet facilities to the user for a particular period of time. The technology awards the user for keeping the surrounding clean and thus work hand in hand for the proper waste management in a locality. Smart netbin uses multiple technologies firstly

the technology for measuring the amount of trash dumped secondly the movement of the waste and lastly sending necessary signals and connecting the user to the Wi-Fi

system. The proposed system will function on a client server model, a cause that will assure clean environment, good health, and pollution free society.

**By Rahul R,**

The idea presents smart waste management using an IoT based waste bin for collection and monitoring the level of waste inside the bin. The system is implemented using two ultrasonic sensors which are controlled by Node MCU. One of the ultrasonic sensors detects the level of the waste in the bin and another detects the person approaching the bin to dispose of the waste. This detection helps in automatic opening and closing of the lid. Servo motor is connected to the lid which serves the action of closing and opening of the lid. In this system, the level of waste in the bin will be sent to concerned authorities. The IoT data is stored and monitored using the Blynk app. The proposed system is reliable, cost effective and can be easily implemented.

**By Pari Yogeshwaran,**

A smart garbage monitoring system monitors the garbage bins and informs about the level of garbage in the garbage bins via an Android application. For this, the system uses ultrasonic sensors placed over the bins to detect the garbage level and compare it with the garbage bin's depth. The system makes use of GPS and Node MCU Esp8266(wi-fi) for sending data to the cloud. An Android Application is used to view the level of waste in the bins. The Application gives the location of garbage bins and highlights the marker when the bins are full.