

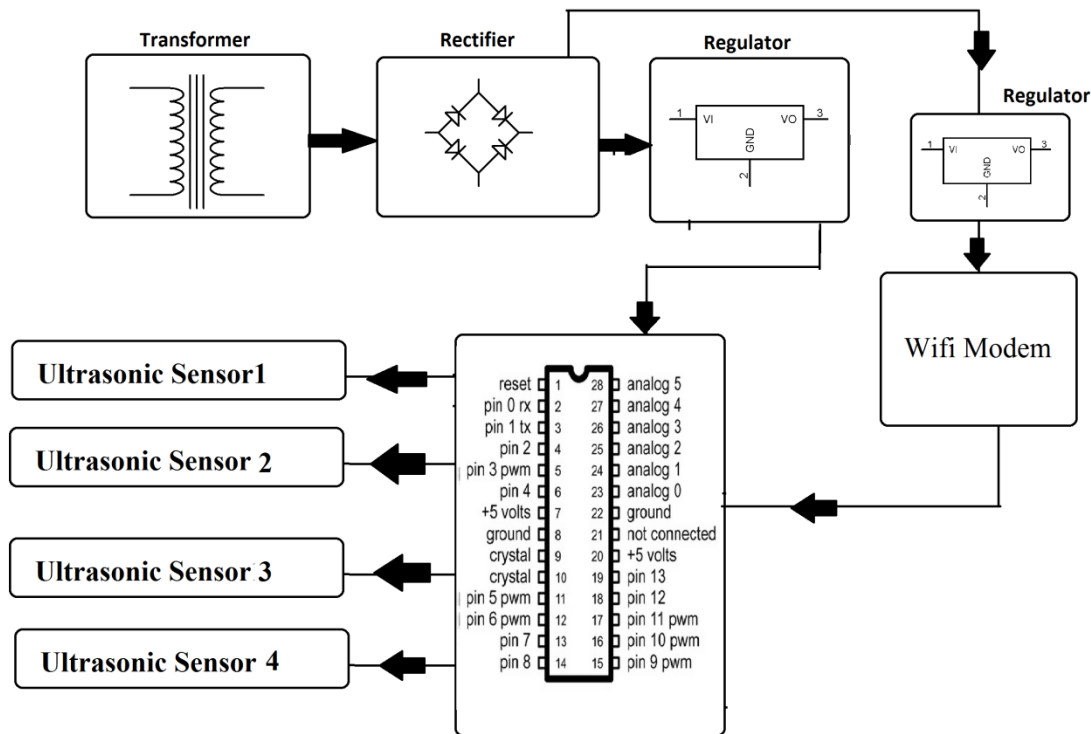
# IOT Garbage Monitoring System

## Abstract:-

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 page. 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 AVR family microcontroller, LCD screen, Wi-Fi modem for sending data and a buzzer. The system is powered by a 12V transformer. The LCD screen is used to display the status of the level of garbage collected in the bins.

Whereas a web page is built to show the status to the user monitoring it. The web page gives a graphical view of the garbage bins and highlights the garbage collected in color in order to show the level of garbage collected. The LCD screen shows the status of the garbage level. The system puts on the buzzer when the level of garbage collected crosses the set limit. Thus this system helps to keep the city clean by informing about the garbage levels of the bins by providing graphical image of the bins via a web page.

## Block Diagram:



### Hardware Specifications

1. [ATmega328P AVR MC- Buy ATmega328P Online](#)
2. [ESP8266 Wifi Module – Buy Wifi Module Online](#)
3. [HC-SR04 Ultrasonic – Buy Ultrasonic Sensor Online](#)
4. [LCD's – Buy LCD Online](#)
5. [Buzzer- Buy Buzzer Online](#)
6. [Crystal Oscillator – Buy Crystal Oscillators Online](#)
7. [Resistors – Buy Resistors Online](#)
8. [Capacitors – Buy Capacitors Online](#)
9. [Transistors – Buy Transistors Online](#)
10. [Cables & Connectors – Buy Cables & Connectors Online](#)
11. [Diodes – Buy Diodes Online](#)
12. [PCB – Buy PCB & Breadboards Online](#)
13. [LED's – Buy LED Online](#)
14. [Transformer/Adapter – Buy Transformers & Adapters Online](#)
15. [Push Button – Buy Buttons & Switches Online](#)

### Software Specifications

- Arduino compiler
- IOTGecko
- MC Programming Language: Embedded C