IoT based Fuel Monitoring for Vehicles

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Abstract - *In today's world, a record of fuel filled and fuel consumption in vehicles is not maintained. It results in a financial loss. To avoid this we are implementing an IOT based fuel monitoring for vehicles. When an agent starts filling petrol in your bike/car, the flow sensor is activated. This flow sensor is active till the flow ends. Once flow ends it will calculate the amount of fuel filled and will be notified on the screen. ESP8266 Wi-Fi chip is connected to flow sensor and server ESP8266 wi-fi chip activates the flow sensor and the result is displayed on the server.*

Key Words: **ESP8266 Wi-Fi chip, IOT**

1. INTRODUCTION

Nowadays, actual record of fuel filled and fuel consumption in vehicles isn't maintained. It results in a financial loss. To avoid this loss, fuel monitoring system is implemented by an IOT based Fuel

Monitoring in vehicle. As fuel prices are rising, there are some issues people are facing about fuel theft at petrol pumps. Internet of Things (IOT) may be a concept that considers pervasive presence within the environment of things and unique addressing scheme to interact with one another. A world where the important , digital and therefore the virtual are converging to make smart environments that make energy, transport, cities and lots of other areas more intelligent. The purpose of the IOT is to make possible things to connect at any time, in any place, with anything and anyone ideally using Network and service.

We hope to build a prototype model of IOT based fuel monitoring system which will be able to calculate the fuel which is exactly filled in the bike/car. The fuel filled in bike/car should be maintained nowadays because people might get cheated on petrol pumps. So We should have complete detail of fuel filled in bike/car. The requirements for IOT based fuel monitoring system are ESP8266 Wi-Fi chip (Wemos), Sensor to calculate the fuel filled, tank for testing and calculating the fuel.

The prototype will be build using ESP8266 Wi-Fi chip (Wemos). ESP8266 Wi-Fi chip has inbuilt Wi-Fi which has libraries to be installed and it will be connected to the flow sensor. As soon as the flow sensor starts filling the fuel it also starts calculating the fuel filled in bike/car.

1.1 Proposed system architecture

System Description

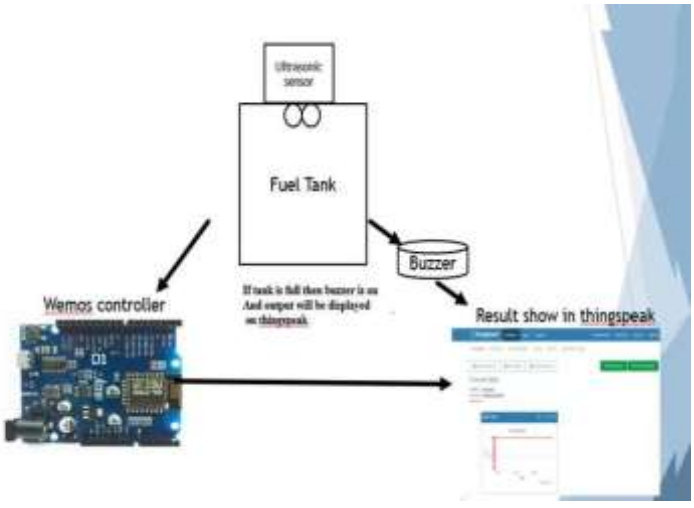

Fig 1. SYSTEM ARCHITECHTURE

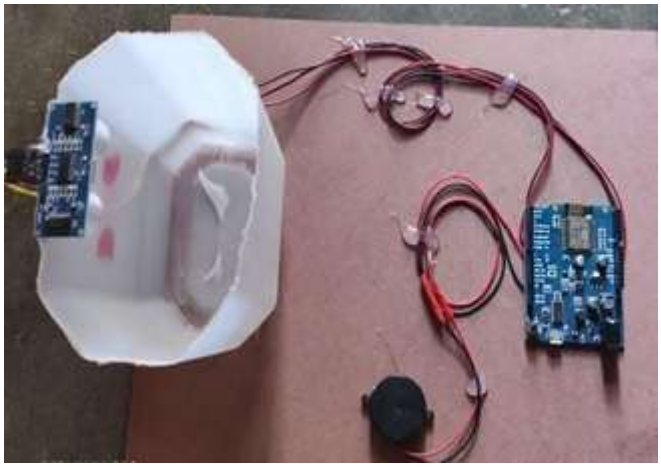

Fig 2.IOT based fuel monitoring system

Fig 3. Output for IOT based fuel monitoring system

2. EXPERIMENTAL RESULTS

FEATURES

1. Easy to operate
2. Fuel Monitoring system using Wemos.
3. Easy to calculate

3. APPLICATIONS

IOT based fuel monitoring system is used to calculate the fuel and maintain the amount of fuel filled in bike/car. This system is implemented for overcoming the frauds done on petrol pumps.

4. CONCLUSION

IOT based fuel monitoring system is implemented for overcoming the frauds done at petrol pumps. It will help to calculate the exact fuel filled in bike/car.

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5. REFERENCES

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