

E GREEN MANGEMENT SYSTEM

A PROJECT SYNOPSIS

SUBMITTED BY

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SUBJECT: EMPLOYABILITY SKILLS AND MINI PROJECTS (ESMP)

TE (ELECTRONICS AND TELECOMMUNICATION)



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PROBLEM STATEMENT:

In this project to implement the IoT based garbage monitoring system and the garbage separate in two form dry and liquid and recycle the garbage material and sell the fertilizer to the farmer and also monitoring in real time the tree and provide the liquid fertilizer.

INTRODUCTION:

The mixing waste management is a big challenge in the any country. The smart garbage collection system is used of the smart home and smart city. The system is used of the separate garbage such as dry garbage is separate container and the wet garbage is separate container with the help of a motor mechanism and the IR sensor though. The garbage is place of motor mechanism then the IR sensor detects and the moisture sensor is the find out the garbage is wet or dry. Suppose the garbage is wet then the motor mechanism is rotated to left side and if the garbage is dry then motor mechanism is rotated of right side and the garbage is collected in the container. When the garbage container is full then it will display to the nearest municipal office that the container is full and send the code or address. And the municipal office will inform of the garbage collector driver via sms through GSM module .The total process is wireless through and IOT based through.

An efficient waste management is a pre requisition for maintain a safe and green environment as there are increasing all kinds of waste disposal. There are many technologies are used for waste collection as well as for well managed recycling. The Information gathering is big and cumbersome. The concurrent effects of a fast national growth rate, of a large and dense residential area and a pressing demand for urban environmental protection create a challenging framework for waste management. The complexity of context and procedures is indeed a primary concern of local municipal authorities due to problems related to the collection, transportation and processing of residential solid waste today the garbage collection is manual which takes a lot of efforts and is time consuming.

In this project humans and vehicles were used to do that work and here we are using automatic technique to detect garbage level in Garbage Can. For that, ID number is given to each can. Also as soon as the Garbage Can is full / over flowing then a SMS is sent to the server from where all the garbage collection vehicles are allotted.

Composition of Garbage in Bulkley Nechako by Volume

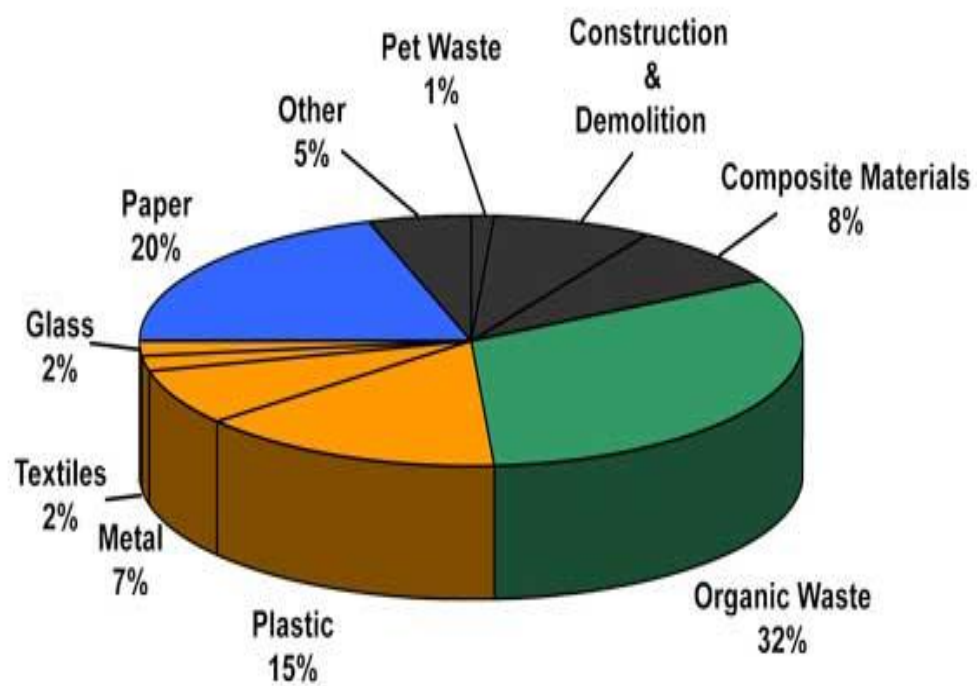


Fig. 1

Dray fertilizer



Liquid fertilizer



OBJECTIVES:

- Discuss the Benefits of Minimizing the garbage waste management system.
- Help the Cleaning authority of a region with the detailed information of waste generation in their area and manage it to get maximum outcome.
- Discuss How to monitor .Measure and Evaluate your program .
- Provide a fertilizer to for farm waste.

OUTCOMES:

- To implement this project to find the how many garbage produced in any society.
- To know the IoT concept and the real time monitoring system.
- And also know the how to program to html code.

PROPOSED SYSTEM:

Transmitter section

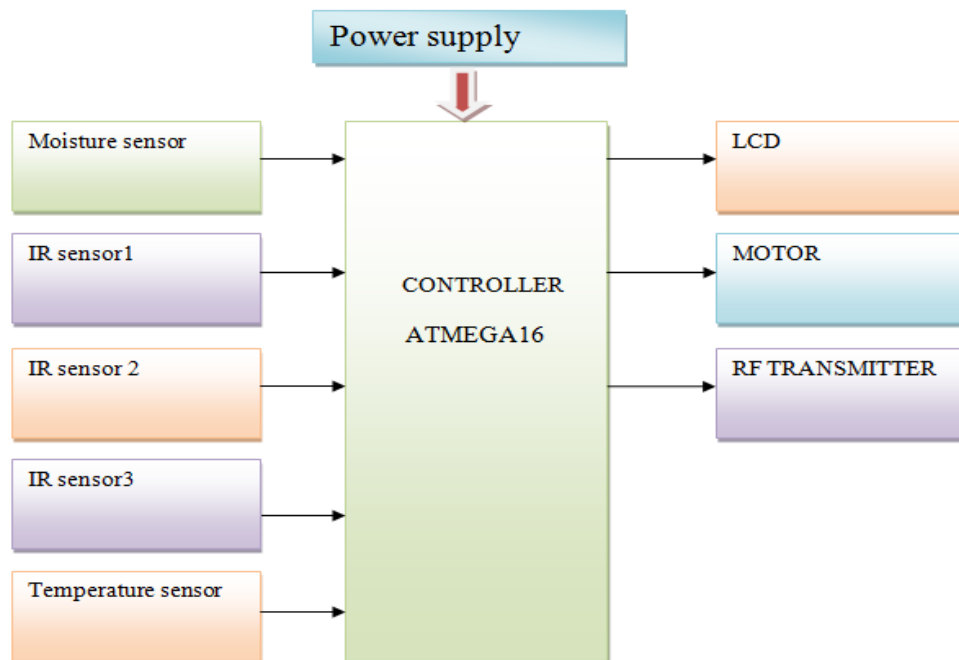


Fig:-Transmitter section

Transmitter Description

1. Power Supply:

The 5v power supply is connected to the microcontroller.

2. Moisture Sensor

The moisture sensors measure the water quantity if garbage water quantity is high then the signal is provided to the controller and the controller rotates the motor in liquid side container. If the garbage water quantity is low then the signal is provided to the controller and the controller rotates the motor in dry container side.

3. IR Sensor

An infrared sensor is an electronic device that emits in order to sense some aspects of surroundings. An IR sensor can measure the heat of an object as well as detect the motion.

The IR sensor's output is connected to the controller.

4. LCD Display

The LCD Display is the display of the container percentage and the container full indication. And it is also connected to the controller.

5. RF Transmitter

The RF transmitter is connected to the controller and it passes the RF signal to other controller.

6. Motor sensor & motor

The motor sensor is connected to the motor and the output is connected to the microcontroller.

Receiver section

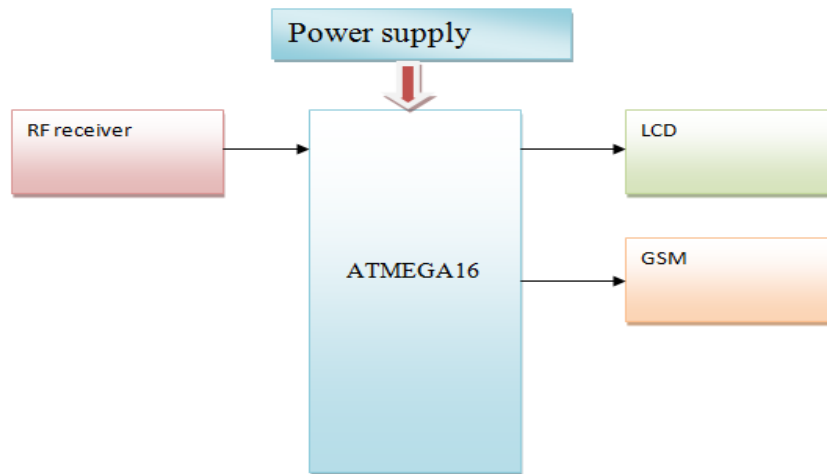


Fig:-Reciver section

Receiver Description

The part is receiver is connected the RF receiver, Esp8266,GSM, Display, Power supply.

1. RF receiver

The RF transmitter pass of RF signal and the RF receiver receive the RF signal & applied of microcontroller.

2.Esp8266

To moneriting the reail time garbage cantener with the help to esp8266 wifi module.

3. GSM

The GSM is used the pass the messages of other phone with the help of microcontroller.

The GSM services are handling of only receiver section. The microcontroller is handling of GSM services.

4. LCD

The LCD is used the only RF signal messages with display form.

Advantages

1. Collects garbage in separated form.
2. To keep our Environment clean & green.
3. The cost of very less to implement the system.

Disadvantages

1. Complex construction.

Application

1. Can be use in formation of smart cities.
2. Can be use in colony, societies and hotels in future.
3. It can be use in large industries.
4. Used to deposit nuclear waste.

WORK PLAN:

Parameters	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13
Formation of group													
Identification of problem statement													
Literature survey													
Objectives and outcomes													
Proposed system (methodology)													
Simulation/ Bread board testing)													
PCB designing and manufacturing													
Testing and verification													
Report writing													
Final presentation/ demo													

(Merge and color the cells selected for the task/parameter to be perform)