A PROJECT REPORT
ON
IOT Based
Home Automation System

Bachelor of Technology

By

Mukul Rawat

INTRODUCTION

In modern world, everything in this world now can be controlled with a click and voice, weather it is launching of a missile to the switching ON/OFF of the lights in household.

The project is all about controlling the home appliances using a device like phone, tab etc. and collecting all data of appliances and updating on cloud, so that it can be used for future references, for e.g. personal home appliances bill. Basically home automation is simply a automation of household activities by interfacing the home appliances in the house through electronic and proper communication protocols.
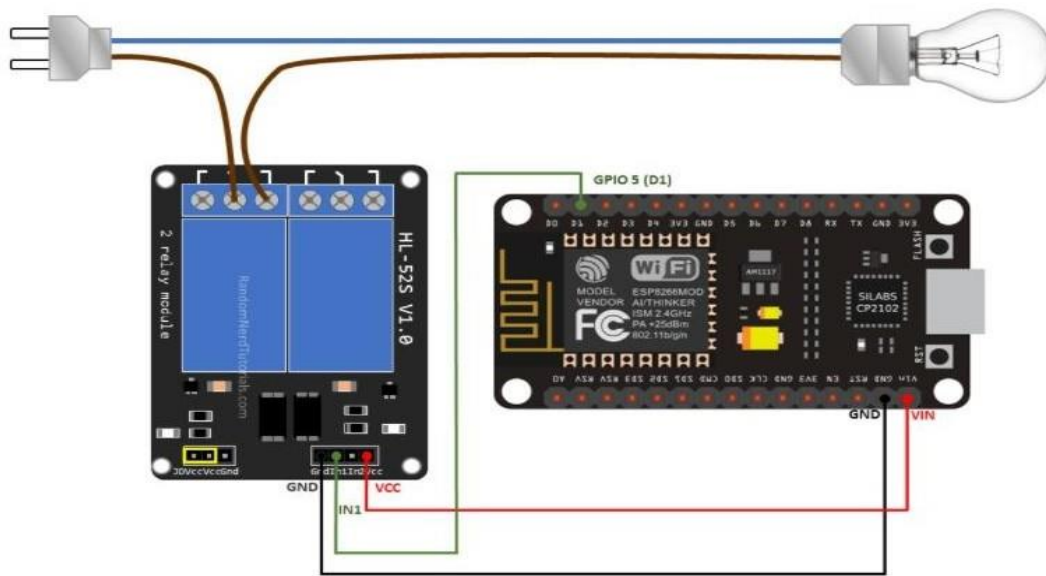
World is heading up to M2M (machine to machine) communication so that human intervention is as much as low so that human resource can be used in useful works and are not wasted for useless purposes. This project is brief introduction for working of our household appliances. This project enables our smart phones to be remote of every appliance in our household, adding to one more feature to this smart technology and Node Mcu makes this possible in very efficient way. Hence this project is a great example of the future technology and it's application.

Tools And Software   Used

- In order to accomplish this project following tools were used :

1. Node MCU-ESP8266

2. Bread Board

3. Laptop

4. Arduino IDE

5. Male to Female Pin Connector

6. Female to Female Pin Connector

7. Electrical Wires

PIN DIAGRAM:

Methodology

Building up a project on Home-Automation was a great piece of experience, it not only help me in gathering information about new technologies but also made me realize the use of programming in real life.

Discussing about how this learning process started and journey up to building up this project goes like this:

- **First of all we need Node MCU ESP-8266 which has following components:**

- **Second is to make cloud server(here thingspeak iot taken) & learn some basic commands of html.**

- **Now upload the coding part that is sketch to arduino board using arduino IDE.**

- **Now using mobile phone wifi to hop into node mcu server, and operate home appliances.**