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WHATSAPP HOME AUTOMATION USING NODEMCU

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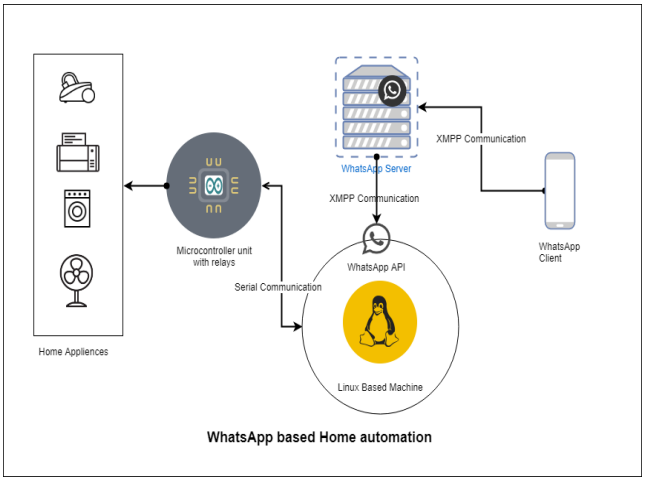
Abstract – In this project, we will learn how to control our IOT home appliances using the messaging app Whatsapp to easily and effectively communicate with those devices. So we will be sending Whatsapp messages to a number of "lights on," and lights at our house will turn ON. To control anything from the internet, we will need a protocol. Whatsapp works on XMPP (Extensible Messaging and Presence Protocol). We will be using its API to send and receive messages. The received messages will work as commands for a specific task like turning the light ON/OFF.

***Key Words*:** IOT home appliances, Extensible Messaging and Presence Protocol, API,

1. INTRODUCTION

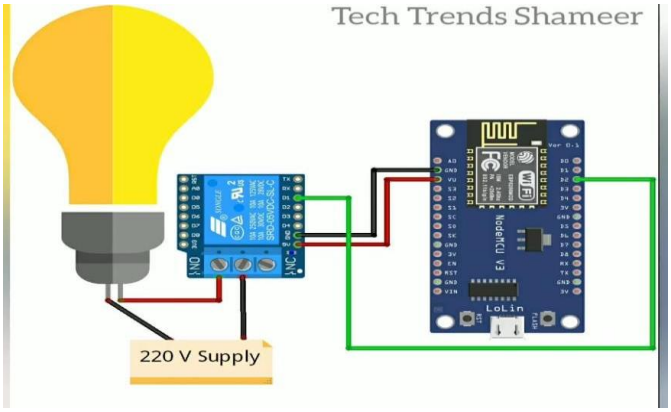
Whatsapp-Based Home Automation course helps individuals to understand how to monitor, operate and control home appliances through Whatsapp.Home automation is the future. Imagine being able to control your entire home from your smartphone. That future is now a reality with this new Whatsapp-Based Home Automation course. In this course, you will learn how to monitor your home's lights, temperature, security system, and more using just your Whatsapp messenger app. Whether you're a beginner or an experienced tech user, this course will show you how to set up and use Whatsapp-Based Home Automation in your own home.

2. BLOCK DIAGRAM



WhatsApp based Home automation

3. CIRCUIT DIAGRAM



4. MAIN COMPONENTS

1. **Node-mcu Board**
2. **Wires**
3. **Power Supply**
4. **5v Relay**
5. **220v AC Bulb**

5.WORKING

When someone sends a message to the number at which the Whatsapp is installed in the Linux system. The message is received in the system through a Python script running a message receiving the script and analyzed for commands like "turn lights on/off". When any command is matched with the predefined commands, the script sends that command to the microcontroller connected to the serial communication port. If "turn lights on" command is received in a message, the script understands that it is to turn the light on, so it will send the "ON" command to the microcontroller through serial communication. The controller will turn the light on by turning the relay on.

6. OBJECTIVE

1.Wireless control of home appliances

To develop the application that would include features of switch and/or voice modes to control the applications.

2. Monitoring status of appliances

Being able to view the status of home appliances on the application.

3. Controlled by any device capable of Wi-Fi (Android, iOS, PC)

To achieve flexibility in control of the home appliances, and device capable of Wi-Fi connectivity will be able to obtain a secure control.

7. SCOPE

The aim is to design a prototype that establishes wireless remote control over a network of home appliances. The application is designed to run on android device providing features like, switch mode control and a provision to view the status of the devices on the application itself.

8. APPLICATION

1. Low power consumption

2. Save time

3. Save electricity

9. ADVANTAGES

1. It can be controlled by multiple users.

2. Whole process is running on internet , there is no fixed range between system and controller.

3. It helps disabled people.

10. HARDWARE REQUIREMENTS

1. NodeMCU ESP8266 controller

2. Relay circuit

3. Lamp

4. Fan

11. CONCLUSION

The home automation has been experimentally proven to work and successfully controlled from wireless device .It is evident from the project work that an individual control home automation system can be made from locally available components .This project proposes a low cost,secure,accessible and remotely controlled solution.

12. REFERENCE

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