



HOME AUTOMATION SYSTEM USING WIFI, GOOGLE ASSISTANT

Sulakshana Nishikant Bhatlawande¹, Vaijayanti Sachin Yeole²

¹Lecturer, Department of E&C Engineering, Y.B.Patil Polytechnic, Akurdi, Pune

²Lecturer, Department of E&C Engineering, Y.B.Patil Polytechnic, Akurdi, Pune

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ABSTRACT

Nowadays, technology is constantly evolving. Google Assistant home automation control is used to control home devices by voice. On this request, Google Assistant receives commands. Adafruit account is a free cloudbased IoT website for creating virtual switches that connect to the IFTTT website (abbreviated as "If This Then That") which is used to create further instructions. Voice commands for Google Assistant have been added from the IFTTT website. In this type of home automation, when users command Google Assistant, home appliances such as lights, fans, and motors can be controlled accordingly. The commands given by Google Assistant are considered and sent to the microcontroller, which in turn controls the relay connected to it. Connected devices can be turned on and off according to the user's request to Google Assistant. The microcontroller used is Node MCU (ESP8266) and communication between the microcontroller and the application is provided via Wi-Fi (Internet).

KEY WORDS: Google assistant-controlled home automation, IFTTT website (If This Then That)

1. INTRODUCTION

"Home automation" refers to the automatic control of home energy, activities, and devices. The electrical equipment and processes of our home can be easily controlled over the internet. A home automation system has three main components: sensors, controllers, and actuators. Nowadays, there are advances in technology and the sunrise is an exciting time for the world. The main purpose of technology is to increase efficiency and reduce labor costs. In this popular world, IoT has gained a very important place. Automation can reduce labor and increase efficiency. Thanks to the use of IoT, we have successfully managed devices in many areas; one of them is to control home automation using node microcontrollers. Raspberry pi, beagle bonnet etc. We can also use other boards such as Since all work is done through communication in today's technology, effective communication can also be achieved through voice. Although technology continues to permeate our daily lives.

2. SCOPE OF THE PROPOSED SYSTEM

Smart Home Technology Is a Necessity, Not a Luxury Home automation started as a symbol of luxury and status, then became a trend. However, home electricity has proven to be essential and indispensable in today's world. Ultimately, it makes life easier, stress-free and productive. Learn how every room in your home and your life within it can be transformed into a better place and success once you learn about automation below.

- You can turn the lights on and off and adjust the brightness in each room. You can also set a timer

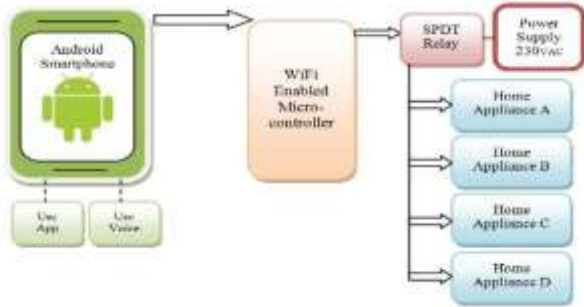
for when you leave and arrive.

- Set up your home base and schedule TV recording or control schedules and work on your phone whenever, wherever you want.
- Find out who is knocking on the door with your mobile phone and open the door remotely or wait for strangers.
- Use smart thermostats to control and maintain room temperature. Ultimately, it will reduce your labor costs.
- Home automation can alert you when high levels of carbon monoxide and smoke are detected.

Security is one of the main reasons to choose home automation. Automated systems use data from sound sensors and connected devices. So, when you leave the house, the system automatically closes the garage door, turns off the smart lock, turns off the lights, etc. Likewise, you can turn off connected devices if you forget.

3. METHOD OF EXECUTION

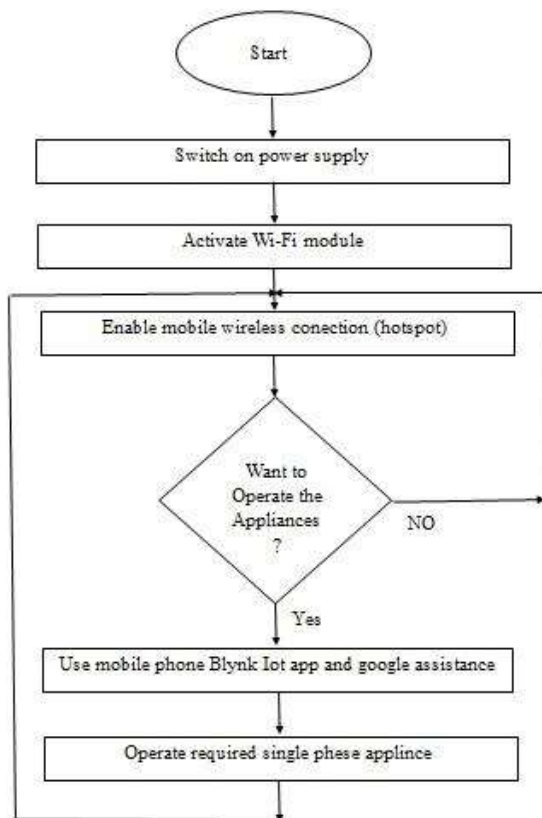
Home automation is a network of hardware, communications and electronic devices that connects everyday devices through the Internet. Each device is equipped with sensors and connected via Wi-Fi, so you can control it from your smartphone or tablet from home or from afar. This way, you can turn on the lights, lock the doors and even turn on the heating, no matter where you are.



4.COMMUNICATE WITH GOOGLE ASSISTANT & BLYNK



5.FLOW OF EXECUTION



A home automation system consists of three main components: sensors, controllers, and actuators. Home automation controls equipment connected to your home computer from a remote location over the Internet. You can access home devices (emulation) from your home computer without compromising security. We use a high level of security and do not provide direct access from public networks. Instead, you access your home computer information through a public email system. We use the Gmail SMTP/POP3/IMAP servers to perform these tasks.

Home automation simulation is therefore a faster, safer, and more efficient way to control the electrical devices in your home from your home computer from anywhere in the world.

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