

Bluetooth Activated Control with Android and NodeMCU

*A project report submitted in partial fulfillment of the requirements for the award
of the Degree of*

BACHELOR OF TECHNOLOGY

In

COMPUTER SCIENCE AND ENGINEERING

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VISAKHAPATNAM-531113

(2017-2021)

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ABSTRACT

Home automation is a modern technology that helps to enjoy comfortable living conditions inside the home. With home automation, data can be instantly collected and passed between devices and analyzed simultaneously. By connecting the home appliances with the internet, they can be easily accessed from anywhere. In the home automation system, settings are feasible through smartphones or other remote-control devices. This paper gives the design and implementation of a new voice-controlled home automation system that uses Google Assistant for giving user's voice commands as input. It is a low cost and flexible home automation and monitoring system. It enables the user to use a home automation system based on the Internet of Things (IoT). Home appliances like fans and lights can be controlled. The fundamental purpose of this project is to control electronic appliances based on the situational demands of the user.

Home Automation is a modern technology that helps to enjoy comfortable living conditions inside the home. The main aim in home automation system, settings are feasible through smartphones or other remote-control devices. Home appliances like fans & lights can be controlled based on the internet of things (IOT). We will develop our own app on an android smartphone to control locally our home devices using buttons. If we didn't have experience on developing android apps, we can directly execute the .apk file on our android device. As always, I hope this project can help others to find their way in the exciting world of electronics & IOT.

Due to the rapid development in the field of the Automation industry, human life is becoming more advanced and better in all aspects. In the present scenario, Automated systems are being preferred over the non-automated system. With the rapid growth in the number of consumers using the internet over the past years, the Internet has become an important part of life, and IoT is the newest and emerging internet technology. Internet of things plays an important role in human life as well as in the educational field because they are able to provide information and complete the given tasks while we are busy doing some other work. In this paper, a prototype and implementation of Smart Home Automation with Wi-Fi technology are demonstrated. ESP8266 is used as a Wi-Fi technology.

The proposed system consists of a hardware interface and software interface. In the hardware interface, the integration of ESP8266 Wi-Fi technology for