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Home Automation using Arduino With Bluetooth Module

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Abstract: This paper aim is to develop and design a home automation using arduino with Bluetooth module. This system is gives a simple and reliable technology with android application. Application like bulb, fan, Ac, door look, are controlled by in this system. The paper mainly focuses on the control of smart Home by android phone and provide a security based smart home. People have less time to handle any device will work to our desire. This paper motive is controlled Home application protection is being used to only allow authorized user form accessing the application at Home. The design of Home automation system compatibly with local housing and good features for Home Automation via remote access are presented. Our Home automation works smartly by providing increased quality of life.

Keywords: Arduino UNO, Bluetooth module, Relay<Android phone.

I. INTRODUCTION

The designing of Home automation are simple and more popular because most of people uses smart phone now days. Arduino is a hardware which is used to connect computer and the project Model so That we can control it by using arduino code accordingly. Arduino also connected relay, which receives from arduion and perform the operation as switch, the advances in the concept of the internet of things. Although automation for commercial building is a nature technology. Automation application for residences are a relatively new development. This system is involves the monitoring and control of activities such as lighting heating, electrical application, door lock and alarms. So that these device can be control easily.

II. METHODOLOGY

In this device there are five main parts arduino UNO, Bluetooth module, relay android application. Smart Home system with improve technologies have been implemented. The Technologies are based on contolling home automation system in android application

ARDUINO: The arduino uno is the best board to stoted with electronics and coding. Simple connect it to a computer with a usb cable, it with power ac to dc adapter or battery to get started.

Arduino UNO

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BLUETOOTH MODULE(HC-06) =>

Bluetooth module is An easy to use bluetooth module designed for transparent whreless serial connection setup this is provides switching mode between master and slave mode.

The role of module can be configured only by at command the slave modules cannot initiate a connection to another Bluetooth device but can accept connection. Master module can initiate a connetion to other device

HC- 06 Bluetooth Module

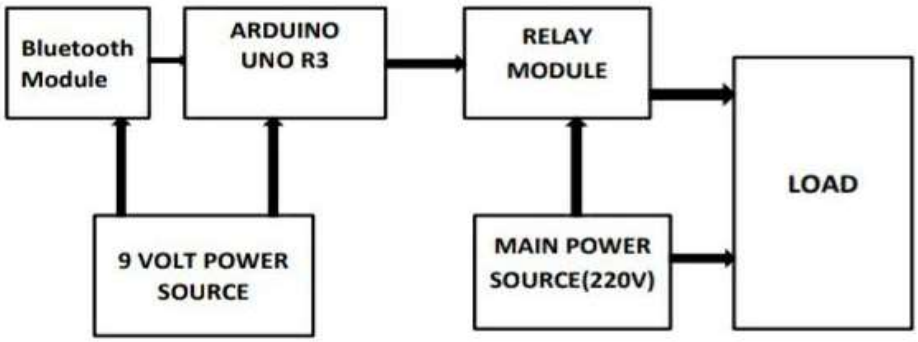
RELAY DRIVERS =>

Relay is an electromagnetic switch.when arduino transmit the signal then relay draever elriver receive signal and start its work

ARDUINO SOFTWARE=>

Arduino is open source software and based on processing and other open source software. So this arduino basically gas input function and commands that through work on java platform.

III. BLOCK DIAGRAM



CIRCUIT DIAGRAM =>

In this diagram are commented main part arduino,Bluetooth Module Relay driver and android application.

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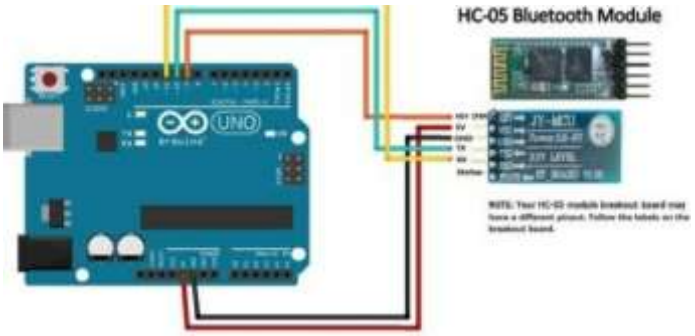

ADVANTEGE =>

1 everything is automated so it is easy to use.
2 it is controlled by mobile.
3 saves our time
4 home security
5 remote contol of Home function

IV. RESULT

The development of a home automation.this project has been creatad so that we can easily control Home application like, light fan, tube light, ac etc.

V. CONCLUSION

This method home application can be controlled to avoid the dangerous of the electric sock. It can make secures home by alernating people when smoke detecting, gas leaked in the home security features of smart home automation. system the need of research paper is to create a device and improve human life style.

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