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Remote Automation of Android Devices using Bluetooth

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Abstract - In this project we discuss about the remote automation using android and based on Wifi and Bluetooth . .Some people in the encounter a lot of problem due for hospitals and in homes. It's a controlled system which keeps on updating the id of the user.It is basically designed for using your home appliance with your android device and also have RFID system.The RFID tag installed contains the unique number for every person.In this we control our fan with the temperature.

Keywords: *RFID tag,WIfi(IOT),bluetooth*

1. Introduction

Home Automation is used to handling and controllin g home appliances by using micro-
ontroller or computer technology. Automation ispopul ar now days because it provides ease, security and efficiency. In this, a sensor senses the status of appliances and updates to web server. If u ser is not able to reach the button appliance, he ca n access and change status of appliances i.e. switche s it on/off. User can use local PC. This paper will describe approach of controlling home appliances b y using Wifi (IOT) and Bluetooth is a very valuabl e thing. Everybody wants to save time as much as they can. New technologies are being introduced to save our time and Man power . To save people's t ime we are introducing Home Automation system usi ng Bluetooth and Wi-
Fi. With the help of this system you can control y our home appliances from your mobile phone. You can turn on/off your home appliances within the ran ge of Bluetooth or Wi-Fi.

2. Hardware Specification

RFID Module

RFID reader is widely used commercially and among those EM-18 is the first choice of many industry leaders,it reads 125 KHz tags.Some of the most eye gazing features are low cost,very convenient to use by any individual,energy efficient.It supports TTL serial & Wiegand 26 protocols ,when it interacts with microcontroller it uses anyone of these two.

Arduino

One of the most popular and widely used microcontroller is Arduino Uno,it is based on the AT328P.It contains 14 digital input and output pins,it has a usb connection which can be used to connect it with the computer and its also got a reset button,thus making it allrounder for the use and convenience.While operating it needs AC to DC power adapter or battery

Uno board was the first introduction in Arduino boards which supported usb connection and is reference to all the future boards.

BUZZER
Rated Voltage : 6V DC
Operating Voltage : 4 to 8V DC
Rated Current* : ≤30mA
Sound Output at 10cm* : ≥85dB
Resonant Frequency : 2300 ±300Hz
Tone : Continuous
Operating Temperature : -25°C to +80°C
Storage Temperature : -30°C to +85°C
Weight : 2g

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3. Need of Remote Automation Using Wifi and Bluetooth

We need remote automation because it helps us to use our home appliance with our android device it will give us the following assurance:-

a. Security
b. Safety.
c. Comfort
d. Save energy.

4. Overview of project

Main component of the project are following:

4.1 Registration

The user has to firstly register himself with the application. The customer is asked for this username, password, email id, contact details and all the sensitive details are encrypted to protect the info.

4.2 Login

The customer logins into his account using his credentials. Once login can further use the services.

4.3 Book now

Once logged in user can go to book now and start the process. Phones, Bluetooth gets connected with the device which uses the rfid tag.

5. Architecture

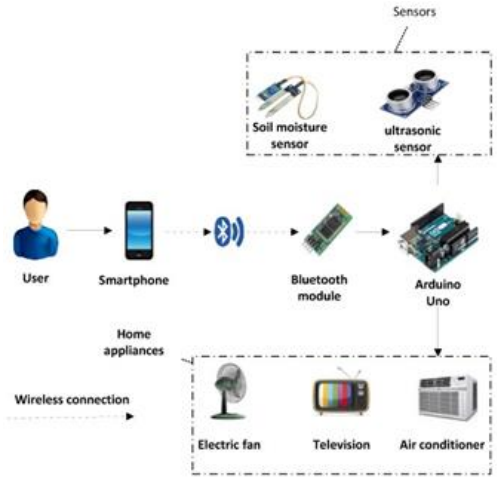
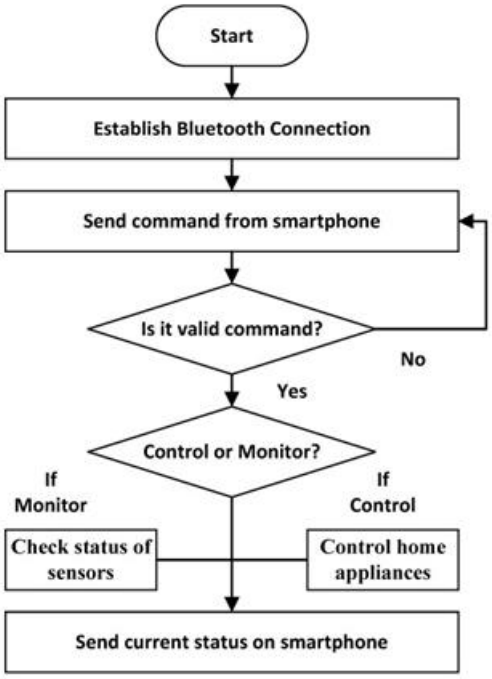


Fig5.1(level 0 DFD)

User uses his unique id to login,his location details are used by the main system to send him the nearest preferred location.



6. Significance of study

Still today people are wasting electricity in their houses to prevent this we can have the remote automation system in our homes which allows us to use our electronic appliances with our android devices.
Some benefits which we may see in the near future:
*Security and control
*Facilitated collaboration
*Safety
*Reduce in wasting of electricity
*Increased efficiency and management
*Save Energy

7. Conclusion

The home automation system has been experimentally pr oven to work as per requirements by connecting sample a ppliances to it and the appliances were successfully contro lled from a Wireless Devices which are connected wi th Wifi(IOT) and Bluetooth. We learned many skills such as soldering, wiring the circuit and other tool s that we use for this project and was able to work

together as a team during this project. We use RFI D to check the person Validation in the entry.The B luetooth client was successfully tested on a multitude of di fferent mobile phones from different manufacturers, thus proving its portability and wide compatibility. Thus, It is a low-
cost home automation system was successfully designed, tested

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