

Home automation system

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Abstract

Now days the Technologies are most used by humans. IOT internet of things prides some communication, connection and also it provides internetworking between various devices. Due to incasing new technologies the human's life becomes more advanced and it provides more services to the user's so the most of the peoples tried to works with them. smart home automation system is based on Wi-Fi connection and this system will control's home device like switching on-off bulbs, Some actions like opening and closing doors it saves the battery and provides better services. And our system will work automatically.

Keywords: - GSM, Wi-Fi, Mode MCU, Home automation, Energy Conservation, Smartphone etc.

INTRODUCTION

In our home automation system our system is based on mobile device. It will track the user activity wherever the needs it will automatically work. Our system will control through mobile we provide one application and application is connected with all the devices of home it track home

devices by using sensor after track it monitors the devices and provides notifications' to the user .For example, In case the user will not checked their foods and that was gone empty and needs to go to bazar and purchase the foods the persons will forgets that thing our application will provides an instruction

through the notification and there is no any complications using this system. The person can control their devices from anywhere so it will helpful and user will control switch in on-of bulbs, opening and closing doors checks kitchen's activities to check personal room's activities it will be controlled by devices using the application. Our home automation system gives access to control home devices. Through the sensor it tracks home devices and saves more energy.

A web or an android application is used by the users to give instructions to these systems. This system can make use of a host of communication methods such as Wi-Fi, GSM, Bluetooth, Zig Bee. Different controlling devices and configurations can be found in existing systems. Such systems have been found already in many places for a wide variety of applications. This smart-home automation system makes living comfortable by offering seamless control of your music, home theatre, lighting, air-conditioning, and sprinklers amongst so much more.

The user interface is not just user-friendly, it even helps you to make sure your system is set up the way you want it to be- which justifies the whole point of living in

an automatic house.so it is user friendly and it provides more services to user's.

Components

- LCD Display
- Lamp
- Transformer
- Ic and Ic Socket
- Switch
- LED
- Diodes
- Cables
- Connector
- Transistor
- Resistor
- Relay
- Wi-fi Module
- At mega Microcontroller
- Breadboard or PCB

Working

Temperature sensors are DHT11, DS18B20, LM35 and MSP430 series from TI. MSP430 series is more accurate than the rest but at the same time is one of the most expensive for prototyping or initial product testing purposes. MSP430 tops all temperature sensors as the precision and battery consumption is minimum with them. Lux sensors measure the luminosity and can be used to trigger various functions range from cross-validating

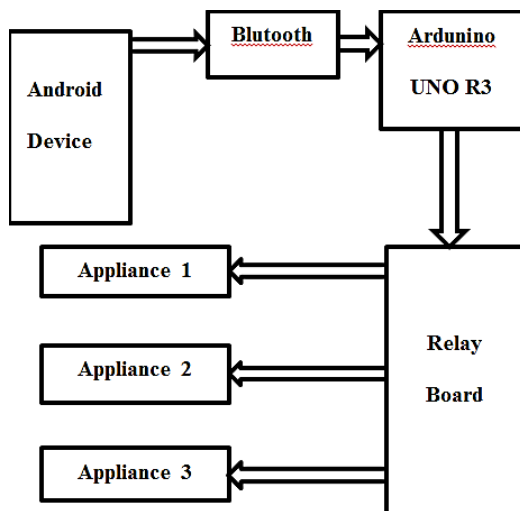
movements to turn the lights on if it becomes too dark. Float level sensors and other ICs like LM1830 offers a more precise measurement capability to IOT developers. A range of webcams and cameras specific to Hardware development kits are usually used in such scenarios. Hardware with USB ports offers to integrate and camera module to build functionalities. Sound detection plays a vital role from monitoring babies to turning on and off lights automatically to automatically detecting your dog's sound at the door and opening it up for them. These sensors bring the capability of sensing humidity in air for smart homes.

- Home Appliances
- Monitor's Air quality
- Monitor's Water quality
- Smart switches
- Smart door locks

Characteristics

- User's authentication and Device security
- Message queuing and brokers
- Data visualization
- Data collection
- Simple analysis capabilities
- Supports HTTP
- Vertical and Horizontal scalable
- Web based APIs for real time world

Block Diagram



Application

- Saves battery and performs better
- Lighting control
- Garden managing

FUTURE SCOPE

Now days the technologies are take places. By using Home Automation System that system will work automatically with more security and also it saves power so, it becomes more advanced and easy to use so the everyone tries to use this system so it has more scope to use such a system in real world

CONCLUSION

In This paper, Home automation system, Our System will control's all the works of user and it decreases human work it work automatically. All the appliances like light,

fan and cooler, fridge, air conditioning system can be remotely controlled by Internet enabled device. The home doors will automatically controlled on remote by the portable internet enabled. Thinger.io provides the account creation means authentication and authorization on every account so that the authorized person can control, monitor and also can take actions according to what they need hence the home automation system can have more and more options for making, updating, modifying or making it smarter. This technology will be more useful to users.

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