Home Automated Door Control System using Android phone

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Abstract - The smart mobile terminal platform Android is getting popular all over the world with its wide variety of appliances and enormous use in numerous spheres of our daily life. We all know that we are in 21st century and we know that technology have improved a lot from the past century. Home automation is one of the improved technologies. Appliances like automation of opening and closing door. By using this home automation human Actual use of home automation is to offer help for old. WI-Fi is an open standard specification . The controlling device of whole system is an micro controller.

1. INTRODUCTION*:*

1. Basically automating procedure of opening and closing the door is achieved in this project. This project contains three applications i.e. android app (view and open close), web service for catering data and windows application intimating hardware to perform actions. Home automation is a process for improving the quality of residents's life

2 .Nowadays, embedded system is designed to provide security widespread applications of GSM technology.

3. Smart home is the term of commonly used to define a residence that integrates technology and services through home networking to improve the quality of living. This is because although recent various has been done in designing the general overview devices and designing the main server the design and implementation has been limited to simply the computer applications just in cases mobile and web application development. This technology is one realization of home automation ideals using a specific set of technology. 4. Smart home appears "intelligent" because its computer system can monitor many aspects of daily living. Smart house can also provides a remote interface to automation system via android application, to provide control and monitoring via smart phone or web browser.

5. We proposed a new technology so that the ordinary services of mobile phones can be used for communicate with and to control the door. The WI-Fi module which will communicate with micro controller and android is done wireless through android smart phone using WI-Fi feature present in it.

6.The advantage of controlling and monitoring mechanism is available in two modes that is automatic with instruction given by android based smart phone and in case the user is not present at home to control the door and home owner can use the automatic mode to control and monitor the door.

7.The important part of this technique is that application run on single processor and produce required output. Discussion on the concept of home automation of opening and closing the door has been there for a long because the cost of device is more. But there is no solution to overcome from this problem. A remote interface can also be provided to home automation via mobile phone of any type for controlling door through mobile phones.

2. Literature Survey:

The projected system work using smart phone application the smart phone application is nothing but the android application which is main source for giving the instruction to Wi-Fi module. The transmitter of Wi-Fi transmits the data. The Wi-Fi works on radio wave technology as the data to pass through electromagnetic signal which is then send using antenna. Home automation means controlling various home appliances such as turning lights and fan ON/OFF, I e his/her home. The benefits of Home Automation are it is easier and comfortable. In design implementation the hardware Camera, signal conditioning circuit.

A. EXISTING SYSTEM:

1. Through mobile (SMS)

2. through web-browser

B. ANALYSIS OF EXISTING SYSTEM:

Controlling the door of home through android application and that user your door. It should work efficiency in every aspect .The problem faced by mobile application via SMS is to send the controlling signals SMS user more.

   Now through the web browser, it not always possible to open a browser accessing doors each and time. Use of web browser or to send a signal we have to open it and if it is more time and cost consuming. Thus we are using more efficient way to overcome this problem faced by the existing technologies.

C.PROPOSED SYSTEM:

Proposed system makes the since, people equipments, we are developing an popular and is being widely used, so the home automation system becomes android app. The use of smart phones is becoming more and more flexible. The features of the system are:

1. To develop controllable aspects of his or her home.

2. Reduces human-efforts Communication between the embedded appliances.

Software section:

1. Android application:

Android is a software stack for mobile devices that includes an operating system useful a full set of tools that have been built from the high productivity and deep insight into their application.

 2.Wi-Fi module:

 3. Web Application:

Hardware section:

1. Micontroller:

Micontroller used is ATMega16L .It is one of the   PWM channels. Real-time counter with separate oscillator. Boundary scan capabilities.

2. GSM modem:

GSM remains for any GSM system Operator SIM card. Through this SIM card Development board the control signs will goes to the obliged gadget.GSM Module any system Generally communication can be done in two ways they wired share information through wires or cables. Wireless communication   can communicate with the peripherals either serially or parallel.

3.Motor Driver Circuit:

L293D is a typical Motor driver or Motor Driver IC which allows DC motor to drive on either direction. L293D is a 16-pin IC which can control a set of two DC motors simultaneously in any direction. It means that you can control two DC motorwith a single L293D IC. Dual H-bridge Motor Driver integrated circuit(IC).

The l293d can drive small and quiet big motors as well, check the Voltage Specification at the end of this page for more info.

3. CONCLUSIONS

In this paper presenting a new system is design. There are number of designs are built in this automation field but the this is the system design which are operated in two different conditions either smart phone user present at home or other family members are at home both can be access and control the appliances. The system is implemented not only for limited area but is useful for all required area.

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