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REVIEW PAPER ON REMOTE CONTROL HOME AUTOMATION

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ABSTRACT

The "Home Automation System" concept has existed from number of years. The terms "Smart Home", "Advanced Home" followed and has been used to initiate the concept of networking appliances and devices in the house. Home automation Systems (HASs) represents a considerable research opportunity in creating new fields in engineering, and Computing. HASs covers centralized control of appliances, lighting, security locks of doors and gates and other many systems, to gives better comfort, power efficiency and security system. Now days HASs becoming famous and enter rapidly in this growing market. However, end users, perticularly the weakened and elderly due to their complexity and cost, do not always accept these systems.

Due to the improvement of wireless technology, there are some different of connections are introduced such as WIFI, GSM and Bluetooth. Each of the connection has their own unique features and applications. Among the four famous wireless connections that often implemented in HAS project, WIFI is being selected with its suitable capability. The abilities of WIFI are more than enough to be implemented in the design. Also, most of the now days laptop or Smartphone come with already built-in WIFI adapter. Due to this cost of system indirectly reduced.

Keywords: Home Automation, Wireless Technology, Remote Control.

I. INTRODUCTION

A Remote Control System allows total control over your equipment without having to move around is a revolutionary concept. With the help of remote we can control all equipment of home or office from a specific distance and also we can vary the speed of fan is a boon to many. The remote control system is an easy to understand and also to operate a system that would be cheap and budget friendly and easy to maintain. It adds more comfortable features to everyday living by removing the inconvenience of having to move around to operate or regulate a fan regulator. The system seeks to develop a system that is cost effective while not undermining the need for efficient working.

Today, remote control system is a standard on electronic products, including cable, VCRs and digital video disc players, satellite boxes and home audio players. After the year 2000, more than 99 percent of all TV set and 100 percent of all VCR and DVD players sold with the facility or remote controls. The average individual these days likely picks up a remote control at least once or twice a day.

The main motive of this work is to design and construct a remote control system for a fan regulator. The remote control device sends an infrared beam which is catch by the infrared sensor fitted on the regulator and speed of fan is increase or decrease. The main aim of the remote control system is to automate the home appliances and save the power.

II. LITERATURE REVIEW

As per our survey, there is many systems exists that can control home appliances using android based smart phones/tablets. Each system has its own unique features. Now days certain companies are officially registered and try to provide better home automation system features. Following people's models describes the work being performed by others.

[1] Microcontroller Based Remote Control of Home Appliances: It targets on evolution of microcontroller based IR remote control signal decoder and used Sony IR remote as transmitter. But IR receiver is not gives very high output.



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[2]Remote Control of Home Appliances: RC- automation permits the user to change the intensity of the light bulb as per requirement and also allows the user to control the speed of the fan over the internet but the major disadvantage of this system is that he appliances are connected to the web of objects and automatically disconnects when no internet.

[3]Home Automation Using Remote Control System: The home gadgets are turn on/off using IR without actually going near to the switch boards or regulators, user can switch on or off the appliances from their seating position. It fails to work when IR beams modulated at the same frequency needs a line of sight for control.

[4] Smart Home System using Wireless Sensor Network and Biometric Technologies Smart Home is an unifunctional system, which takes lead of a variety of devices such as computers, network communication as well as synthesized wireless technology to link all indoor subsystem that are coupled to household and electrical.

[5] A History of Control Engineering: The term automation, stimulates by the earlier word automatic (coming from automaton), this was not widely used before 1947.

PROPOSED SYSTEM III.

The main process which is involved in this system is to make use of Remote to control home appliances. The remote which is design and construct for the fan regulator. Remote control facilitates the operation of fan regulator around the home or office from the distance.

A remote control is work in few stages, when a specific button is press this complete a specific connection which is generates a Morse code line signal specific to that button. The transistor amplifies the signal and deliver it to the LED which is convert the signal into infrared light the sensor on the appliances detect the infrared light and work appropriately. The remote control function is to wait for the user to press a key and then converted that into infrared signal that are catch by the receiving appliances the carrying frequency of such infrared signal is approximately around 36 KHz.

IV. CONCLUSION

With the help of new techniques in 'Electronics' we are able to make our life more easy and comfortable. One of the application from electronics is used in "Remote Controlled Fan Regulator". The same electronic circuit finds its use in many more applications. By help of remote control system the intensity of light can be controlled. The intensity of light can be controlled in five level from off position to maximum intensity possible. With the help of remote control system it use as a night lamp by keeping the intensity of lamp in low level. The similar circuit also used for switching ON and OFF any electronic circuitry. Our normal T.V remote can perform all these activities. So it is very useful for physically challenged, old age and sick people, since they can regulates the speed from the place where they are sitting. We think that our product offers something good to this world and we want to present it before this prosperous world.

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