WIFI CONTROLLED HOME AUTOMATION WITH INFRARED TECHNOLOGY

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ABSTRACT : Controlling the home automated system has been the trend in today's world which makes ease living for people. Infrared technology plays a significant role for transmission of data. This paper presents the cell phone based device automation system with wifi which is implemented with a low cost ,tangible as well as flexible and secure. This System suggests a wide range of home automation devices like power management components, and security components.

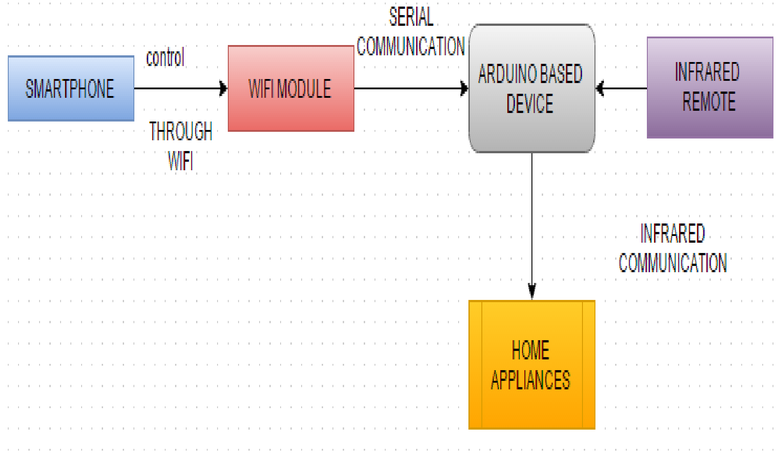
INTRODUCTION: Now a days using of home automation techniques are very popular. On the other hand, they provide elevated comfort particularly when employed in a private home. Alternatively, automation methods installed in commercial buildings don't only develop relief, but also enable centralized control of heating, air flow and lighting. Consequently, they contribute to an overall cost reduction and likewise to power saving which is absolutely a most important difficulty at present. Existing techniques are founded on wired communication. Designing a traditional wired automation system does not have a trouble as long as the approach is planned earlier than and mounted during the physical construction of home. If automation has to be done after the construction then, this requires so much effort and much cost . Definitely, wireless techniques can come to help here. In the previous few years, wireless technologies reached their breakthrough. Wifi controlled systems, used daily and everywhere, variety from wi-fi residence networks and cellular telephones to storage door openers. As of at present, little comparative study of wifi automation necessities has been executed, even though such knowledge would valuable expertise to everybody looking for probably the most suitable approach for given necessities.

Proposed Implementation:

The proposed system is a distributed home Automation system, consists of smartphone, hardware interface modules. Wifi is used to hardware interface modules using the mobile app. Arduino based device is very easy to control hardware and one interface module, and can be easily configured to handle more hardware interface module. The hardware interface module in turn controls its Infrared remote to control the home automated systems. The device which is not having wifi technology can use ir reciever.

Wifi technology is selected to be the network Infrastructure that connects server and hardware interface modules. Wifi is chosen to improve system security by using secure wifi connection and to increase system mobility and scalability.

BLOCK DIAGRAM:



ALGORITHM:

1.Place the device remote in front of ir remote .
2.Press the receive button in ir remote and press the button in device remote which is to be operated.
3.The information will copied from the remote and converted .This will be send to wifi module using serial communication.
4.Using the mobile app we can control the device using the infrared technology.
5.Then the data which is stored in the device is send using irled and can control the automated devices.

CONCLUSION: This paper proposes a low cost, secure, auto configurable and can control from remote places.The strategy discussed in the paper has executed the goal to control home devices remotely using the WiFi and infrared technology, pleasing consumer desires and specifications.