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IoT based Smart Home Automation Using Whatsapp

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ABSTRACT: One of the topic which is growing very popular now a days is HOME AUTOMATION SYSTEM using IOT. Because it has a various advantages so that people can do their work very easily and effectively. Home Automation system refers to the checking and maintaining and controlling all the home applications and allowances from our hand without any help of humanpower and without any help of any other machines. This paper deal with discussion of different home application techniques how manually we can control all the applications using remote by remote controls. This techniques plays a very important role in the society forever humans and specially for the physically challenged people. In this paper we are also discussing the wide range of the home automation techniques with common hub known as Arduino and with different LAN networks like blue-tooth, Wi-Fi and with network friendly

KEYWORDS-- Home controller, artificial intelligence, wi-fi, sms, Bluetooth.

I. INTRODUCTION

IoT refers to the enhanced network services. Nowadays everything is depend on the network and IOT based. Home automation refers to the smart connectivity of the home applications and allowances. It also refers to the remotely monitoring the applications of the home and performing through it. Household devices such as, fans, TV, bulb, buzzers, etc.. are assigned as a unique addresses and applications that are connected to the common gateway and common home application product. Not only controlling the home applications and allowances it also controls PC, laptops, mobiles etc. Which results in the Automated systems. This implementation of IOT refers to the flexible and low cost budget of using the internet standards of Wi-Fi, Bluetooth, zigbee, etc... In this paper not only the home automation system are controlled and monitoring but the home environment are also controlled and monitoring continuously for tracking of energy consumption and which results in the save of the electricity bills. Different methods are used in this paper such as on and off the lights, fans, ac, bulbs, buzzers, etc.. Wherever we want by using remote control based on the wifi, and bluetooth based techniques. Some require home automation system will provide a great satisfaction of the physically challenged people. It will provide a great assistant for them. There have been a great and several researches and developments are going on the home automation system. New techniques are also introduced with finger-print sensor, voice assistant, etc.. Home automation system refers to main two components.., the first part is android application which we give a great sufficient needs for the people needs. Second part is Arduino It is the main part of the whole implementation and give a sufficient and relevant output.

To develop a system which would be very useful for all the persons needs in doing works on their own without seeking anyone help From this we had developing a Home controller system that uses wired connection and help of WI-FI module, bluetooth as well the internet. Other important sources of this system is mobile phone and cloud connection. We are using the cloud page as a main references from the help of the cloud page we are



assessing and controlling all the applications. In other way also it can be used such as wireless connection without any internet or WI-FI module only with the short range of the blue tooth. It can be very useful for the employee people as well the physically challenged people without getting anyone's help or without depending on any person. From wherever we can able to control the applications we want.

II. RELATED WORK

The home applications are viewed by the wireless connection through this system .this wireless connection are made through the 4-relay micro controller and made the connection through the Arduino broad. This broad will give the entire connection through the system and made the home as smart home. This system is controlled by the C program program at high level so it can be very manipulated and give the best results. And home willbe smart as we imagine. Though it is wireless connection theimplementation will be easy and the results will be efficient as we imagine. To control and handle the system of the home materials and allowances new techniques is used called Zig-bee smart home. Using this technique we can able to do and administrate the applications and things in the home. Using the password security we can able to influence the products and mainly for the elder-age people. For this implementation internet is required and also the WIFI is required so only with that parameters we can able to do implementation and influence the product in our home. As well the security system is also introduced in this system in order to keep the homeproducts and implementation very safety in generic manner . The home mechanization is the popular method is growing in today'sworld. To make it as more sufficient we can also many methods we want. Now we can see about RF module using that we can able to regulate the home things etc..and this is the main method which is growing very popular in now a days because every people are busy with their own work so they cannot able to concentrate on their works and homes. So this method is introduced to mechanization, and governance all the articles in the home. It will be the best technique to govern all the amount of the home as well the privacy system are also introduced with this system. Using the network module and as well the without network module like wireless communication we can easily ownership of the brand of the home. This technique will be very useful for the physically challenged people as employee persons. Home computerizing and keep the product as well authorized and well organized format new approach is introduced called Raspberry home control system. Using this new approach we can able to centralized the product as per the user wish. Using with the phone and internet module we can able to command of the things of the home. Using the cloud page we can able to access the link on the android or internet module with the help of the link we can able to access and buy the one cloud page as example as the g mail page. After we are buying the cloud page using that page we can able to govern all the goods of the system. Only with that cloud page and that cloud page and thatpage will associate the particular link for that specificgoods or implementation only with the help of that link we can able to influence all the products and using the username and passwords we can able to develop the security system of that module. The specific username and passwords are generated by the cloud page we just want to buy it ans user by login and sign up that page. This method will be more sufficient and efficient as compared to other systems. The another important procedure of home mechanism is wireless based approach. Without using any wire based task or operation we can able to easily arm all the goods of the home. Example using the blue tooth connections as well any wireless connection is improved in this system. Example like car parking system in home control system we can able to park the vehicles in smart home we cannot use any type of wired or any type of connection is required. Only with thesmart range sensor modules we can able to park the vehicles.Same like using the smart range sensor and Android ADKsensor we can able to monitor and influence the goods of theproduct. This system will be very easy and it will be gainfulin any field..In this paper author presents the broadcast Homemechanization module with the support of powerfulspeechmodule , do us to install a applications andexecuting the module of the system will be more easier.Cost effectiveness and handle them in moderate way Person Footers numerical addition of count is the anotherimportant task in this paper which talks and give challenge with the mechanism generating of simple homeapplications and allowances.

The need of this system isnon-physical challenged people. In this busy schedulepeople are flying like birds and there is no time for them tolook after all those things like switch on and offing theapplication. For that it will be the best system



for their people with their foot step counter from the door to the specific range the lights and fans and other application will automatically off.

And also with their voice recognition we can easily manipulate all the applications. In the above module, we have found out the range of powerful speech module applications system to be 1.5m. So that we can be able to manipulate and use it very effectively. In this paper author presents the ground work system that can be able to generate any of the electrical home allowances and applications for also to save on the future work status. In this paper we are discussing and concentrating on home automation system using the advanced cell phones and desktops. It deals with about two accurate approach in this specific paper home mechanistic like controlling all the basic home automation system and applications using the Bluetooth it will have only the short range distance to communicate. Usage of cloud it will give the correct and accurate results of the products with the help of the cloud page. In this paper a privacy module is also added as that any unknown people cannot rule it by which when the user are able to close or terminate the door only by giving the correct passwords to the system only with their known people.

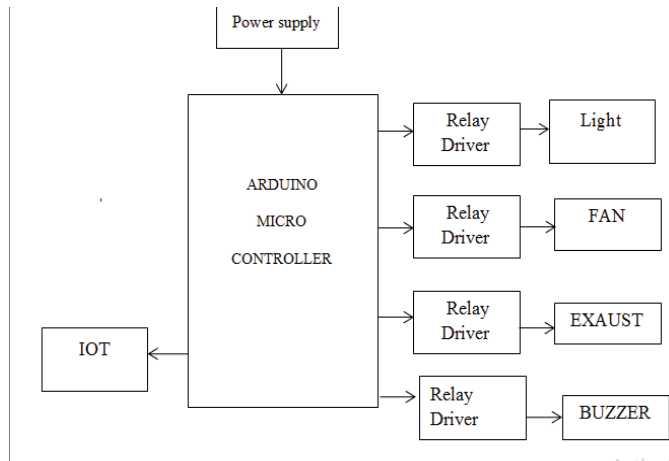
Energy sources home automate system are taking place they are able to do functions manipulate and control all the home automated applications and allowances from wherever we want. For this proposed system the internet connectivity plays an important role.

We need internet connection to facilitate the functions and manipulate them. It depends upon the internet WI-FI connections. In another hand for non wire applications, the predefined IP address is used to use these functions. This Home automate is depends on various stage modules so that they are able to manipulate and utilized by use of powerful speech of user and foot counter and voice process to the persons using the Google voice controller or through any other and depends application. So that the main aim of this proposed system is to make our home controller system more privacy and brilliant and efficient. In this paper author presents that today's world many people are busy with their works and respective jobs. And moreover all are worried about the rise of the electricity and the electricity bill. Not only rise of electricity bill and people are also facing many difficulties and they don't have time to look after the household applications and allowances. Here come with best solution for those problems it covers with the protect and reserving it's a new mode of home operationalization and money collecting process. It deals with the simple household applications and electricity bill of their respective applications. Here this paper with the new approach of electricity bill to overcome the people financial effort and basic household applications. This paper has many modules deals with variety of household applications. The main aim of this paper is to have Android applications. With the android application we can be able to control all the application wherever we want and pay the electricity bill from the android application of the respective household applications. Using that android application we can make use of household applications and allowances can be able to control and manipulate them and which results in the low cost of electricity bills.

In this paper author presents the weather bureau model is used for govern and influence various weather signals. This system supports with the joining of two central idea and to control and facilitate and utilize automate the environment around us as well as the user and it will make and change the surroundings pleasant and comfortable conditions according to our wish even when the weather is not good and it is not comfortable for us. This paper and system is used to come up with the full satisfaction of the user. And this paper deals with the weather forecasting techniques. This system gives the new idea and with the user comfortable surroundings status and change the house pleasant and as per the user wishes. And also make the home chill or cold or hot according to the user wishes. This techniques is done by just switching on through the Android application which should be installed in the Android/IOS phone. This system also deals and operated by with the physically challenged people those who are blind or disabled people can use and control this system through voice recognition techniques. The specific module of 4-relay controller. So that all the 4 models of the system will be in one specific component and so that work will be efficient and the modules will run effectively. Next stage is implementing using that connection and within the same 4-relay module component we can be able to connect 4 home applications or allowances through that 4-relay controller and the specific control are related and the devices are control by the micro-controller. By using this component and connection and also by using the Internet we can be able to control the home applications from wherever we want.



III. BLOCKDIAGRAM



MICROCONTROLLER:



Fig.2

Micro-controllers are used in consequently controlled items and gadgets. In-here we have planned a confined PCB for 4transfers to work 4AC requirements at asametime.We have put sathreestickscrewterminalsquares(NC,Neutral,NO)forassociatingmachines.





RELAY:

Relay or Transfers are often used in our applications extraordinarily when we have to drive high loads from micro-controller circuits. So in this DIY venture, we make a 4-Channel Relay Driver Circuit to be utilized in hand-off-based applications.

We have seen many types of home automation system techniques in different stages in various papers. Now we can compare one technique with another by comparison table so that we can be able to identify which technique is efficient.

TITLE	AUTHOR	TECHNIQUE	FUTUREWORK
Smart Home Automation System Using GSM and Android App	Shubammagar ¹	Using GSM module	Efficient for physically disabled people
Voice dependent structure on persons footsteps	Gudipati Sravanthi	WHAS voice module	More systematic step count
Surviving of home automation with cell phones	Kranthikumar	Using Bluetooth	Using cloud storage
Power Based Control	Satyendra K viswakarma	WiFi based	Wireless technologies
Various off networks with networks	Mshahiyarkabirrafil	Android app	With electrical surveillance
Raspberry home automation system using sensors.	Yogitabodwade ¹	Using android app	Network connections
Using wireless Technologies	Yogitabodwade ¹	BT board	Using python scripts
Common hub maintenance	Yogitabodwade ¹	ADSL board	with low cost



Homeautomation usingrfmodule.	Yogitabodwade ¹	RFmodule	Lowcost
Specificationof weather	Bikrambanarjee	Based onclimaticcondition	Under anyclimate

VII. RESULT ANALYSIS

In this paper we have implemented and compare the results with other papers of home automation system. In our work we have used the cloud of single page instead of using a whole cloud. In other paper home automation system is implemented by using cloud but it will be more complex and high cost. By using the single page of cloud buying and registering through it we can able to implementing a better manner and time saving. Cost will be very low when we are going for using a single page of cloud. So that number of operation will be very less by using 0 and 1's. 0 for indicating off state and 1 for indicating on state of applications and allowances of the home automation system.

VII. CONCLUSION

Home computerized system is nothing but a controller mechanism by which we can control our home gadgets anywhere and anytime at whenever we want. As it is a automatic controller it performs a specific role in our day to day life. It also known that it gives permission to users to remote the different types of gadget satany where in the continent. The technologies used in this frame work are cellphones, laptops, tabs in their own. According to this paper it is divided into varieties of choices to personalize their security system. Study of the home mechanization gives many advantages and gives more support in all the fields as well for many people like employee persons and the physically challenged peoples that they do they own work without depending up on any other system or people. In the recent years the IOT play vital role more over home mechanization gives much contribution in that so that homes are becoming smart home in upcoming days.

REFERENCES

1. M. N. N. A. Asghar, M.H., "Principle application and vision in internet of things (iot)," in Communication Technologies (GCCT), 2015 Global Conference on, may 2015.
2. A.R.C.Y..O.K. Withanage, C., "A comparison of the popular home automation technologies," pp. 1–11, may 2014.
3. B.R. Pavithra, D., "Iot based monitoring and control system for home automation," pp. 169–173, April 2015.
4. M. J. H. B. T. A. M. K. T. Baig, M.Q., "Artificial intelligence, modeling and simulation (aims), 2014 2nd international conference on," pp. 109–114, November 2014.
5. B.S. S. Tharaniyasoundhari, M., "Intelligent interface based speech recognition for home automation using android application," pp. 1–11, march 2015.
6. F.M.G.K.D. Sukmana, Husni Teja, "Wireless and mobile (apwimob), 2015 IEEE Asia Pacific Conference on," pp. 183 – 187, august 2015.
7. S.E.T.B.C.A. Urfaliglu, O., "Signal processing, communication and applications conference, 2008. siu 2008. IEEE 16th," pp. 1–4, april 2008.
8. E.A. Elkamchouchi, H., "Design and prototype implementation of sms based home automation system," pp. 162–167, november 2012.
9. O.N.C.S.A.P.B. Sahani, M., "Circuit, power and computing technologies (iccpct), 2015 international conference on," pp. 1–6, March 2015.
10. Kim Baraka, Marc Ghobril, Sami Malek, Rouwaida Kanj, Ayman Kayssi, "Smart Power Management System For Home Appliances And Wellness Based On Wireless Sensors Network And Mobile Technology", 2015



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