

Home Automation Using IoT

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Abstract

Arrival of the 21st century brought many innovations and technology in the world, from education to the industrial internet of Things (IoT) plays the role of an expert's technical tool by empowering physical resources into smart entities through existing network infrastructures. Its prime focus is to supply smart and seamless services at the user end with no interruption. The IoT paradigm is aimed toward formulating a data system with the mixture of sensor data acquisition, efficient data exchange through networking, machine learning, AI, big data, and clouds which helps us to create a better eco system to utilize things in an efficient way. Implementing the IoT with the internet running together may also lead to privacy and security issues. In order to minimize threats we always ensure that we need to take appropriate precautions while performing any. This Special Issue reviews the newest contributions of IoT application frameworks and therefore the advancement of their supporting technology.

Keyword: Home Automation, IoT, Nodemcu Esp8266, Google assistant.

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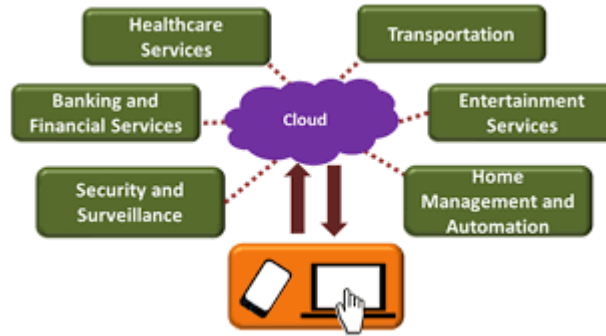
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I. INTRODUCTION

In this information age where technology is developing exponentially to solve the problems of old age people to introduce home automation systems at an affordable price that anyone can buy. There are lots of modules present in the market but they are too costly. We try to minimise the cost so it can really help people in day to day life and our motive is the technology reach to every hand. Nowadays technology plays an important role in our daily life which makes our life easy and comfortable especially for those who are not able to perform efficiently as compared to others so it will help people to interact with technology and also gives a comfort.

II. LITERATURE REVIEW

The house applications are viewed by the wireless connection through this technique. this wireless connection are made through the 4-relay micro controller and made the connection through the Arduino board. This board will give the whole connection through the system and made the house as smart home. this technique is controlled by the C program at high level so it are often very manipulated and provides the simplest results. and residential are going to be smart as we imagine. Though it's wireless connection the implementation is going to be easy and therefore the results are going to be efficient as we imagine [7]. to regulate and handle the system of the house materials and allowances new techniques is employed called Zig-bee smart home. Using this system ready to "> we will able to do and administrate the applications and things within the home. Using the password security ready to "> we will 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 thereupon parameters ready to "> we will able to do implementation and influence the merchandise in our home. Also the safety system is additionally introduced during this system so as to stay the house products and implementation very safety in generic manner



III. EXPERIMENTAL WORK

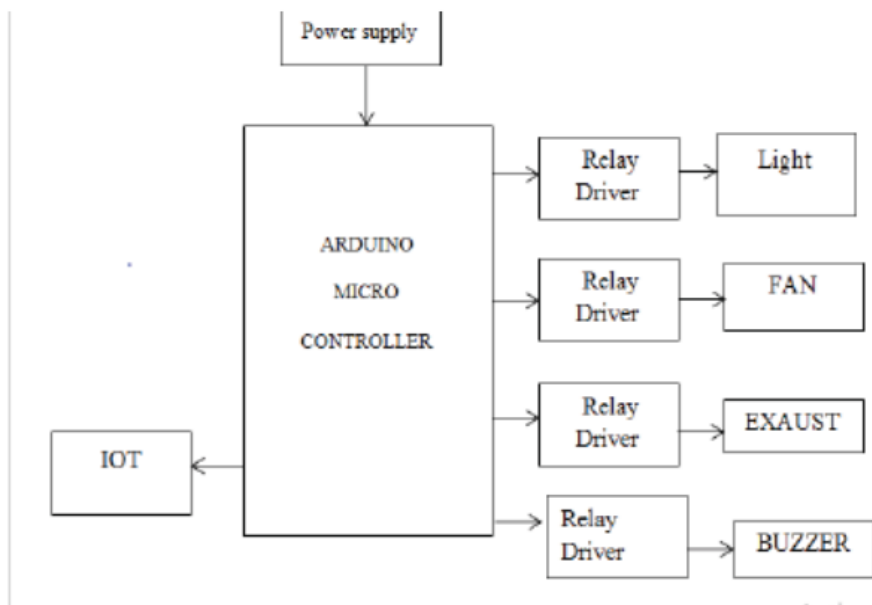
The development of this device with the basic idea of making people life more comfortable and reach technology in every hand we analyse the market and we get to know that the device are available in the market at very high cost so we think about how we cut the price and make sure the people gets same quality of product and service. and then we think about old age people and those who are differently abled they need some kind of technology through which they can use their smartphone to control home appliances without moving anywhere. For old age and disabled people can easily use and manage their appliances and also they customize and control other things too as per their needs.

We try to minimise the cost so in future anyone can use the product for their personal uses and they can also customise according to their needs.

It has a user friendly interface for end user non tech people can also use it so smoothly and operate.

III. METHODOLOGY

1. People can control their appliances through their mobile phone and voice.
2. Easy to use interface, design is to simple and appealing no need of additional education and training anyone can simply operate this device.
3. It is a customizable product it can be customised according to the users need.
4. Maintenance is too low or nominal.



IV. RESULT

1. People of Old age and the person who suffers from any diseases who are not capable of stand and walk then they can control their “**Home Appliances**” through their phone and voice command.
2. In this way they can maintain their independence and feel as normal person.



V. CONCLUSION AND FUTURE SCOPE

1. In conclusion we can say that our system is able to deliver the requirement and future scope for this system will be to scale it for a large user set.
2. People can also customise according to their uses like they can attach more appliances and their wheelchair, and they can also make some simple recipes like boil eggs, make a cup of tea, make shakes and many more.
3. Home automation devices—including small sensors, small cameras, fire alarms, and voice-activated speakers that can make everyday life more comfortable, safer, and more social.

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