Survey Paper on An IoT Based Smart Parking System

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ABSTRACT

Internet of Things (IoT) plays a important role in connecting the over all environmental things to the network and it is easy to access those un-internet things from any remote location. It's unavoidable for the people to update with the increase technology. In this paper we presented the a Lab Automation System (LAS) using that employs the integration of cloud networking, wireless communication, which provide the user with remote control of lights, fans, and appliances within their lab and storing the data in the cloud. The system will automatically change on the basis of sensors' data. This system is designed with low cost and expanded in lab to control variety of devices.

Keywords : ARDUINO Board, Electric Appliances, Mobile Device, Relays, Sensors.

I. INTRODUCTION

In today's modern world of computers where all the things are going computerized and automated. From machinery to simple paper work every process and system has to do something with computer, i.e. they are somehow connected to computers. Keeping that in our mind we are designing our project 'Lab Automation System' that will be a small working model of an automated or mobile controlled system for laboratory system. It will demonstrate how we can control appliances in lab and controlling all the processes through a mobile. Labs will become more and more self-controlled and automated due to the comfort it provides, especially when employed in a private Lab automation system is a means that

Objective:
a) To develop an intelligent, user friendly automated lab system which decreases the manpower.
b) To safe and secure lab applience .

Types of Sensor in Lab Automation System:

Ultrasonic ranging module HC - SR04

Features: -
Provides 2cm - 400cm non-contact measurement function, the ranging exactness can reach to 3mm. It include ultrasonic transmitters, receiver and control circuit allow use to control electric appliances.

II. LITERATURE REVIEW

A Survey on an Efficient IOT Based Smart Home [3] proposes an efficient implementation for IoT for monitoring and automation system and it uses the portable devices as a user interface. Portable devices can communicate with home automation network through an Internet gate, by means of low power communication protocols like zigbee, Wi-Fi etc. This project aims at controlling home appliances via

Smartphone using Wi-Fi as communication protocol and arduino uno. The user here will move directly with the system through a web-based interface over the web whereas home appliances like lights, fan etc. are remotely controlled through easy website. This paper also describes how to provide fully smart environment International Journal of Engineering and Techniques - Volume 2 Issue 6, Nov – Dec 2016 ISSN: 2395-1303 http://www.ijetjournal.org Page 162 condition monitoring by various sensors (Temperature, Humidity, Light and Level) for providing necessary data to automatically detection and resolution of any problem in the devices. Controlling the home appliances via World Wide Web. Based on the idea of "A Survey on Internet of Things Based Home Automation System" [7]. A Remote Password Operated Home Appliances Control Project Algorithm was designed to read the data from Bluetooth module, Initialize the LCD and UART protocol and display the status of the electrical loads on LCD. The system is installed beside the conventional electrical switches on the wall. The risk of dangerous electric shocks can be avoided by using low voltage switches. The system uses two GUIs- one on the personal computer and the other on Smartphone. The status of the appliances i.e. weather it is on/off can be known by using this GUI. Any changes in the status of the appliances, immediate intimation is shown on the GUI.The window GUI will act as a server to forward or transmit any data to/from the Smartphone and the main control board, after the Smartphone's Bluetooth is connected to the Bluetooth of the computer.

III.   FUTURE WORK

Automation is going to become one of the biggest markets on global level. The future is completely dependent upon the IOT and Automation. This system frame work can not only be used for laboratory automation but also for hospital automation, library automation, home automation and various other automations. And these automations will provide security, user-friendly environment, management of time, reduction of human efforts, and many more features which are beneficial for future use.

IV. CONCLUSION

From the past decade it is observed that IOT(Internet of Things) has taken over the automation market and has been used on large scale. Lab automation becomes necessary for proper working of the apparatus of the laboratory. Lab automation has helped the user to perform a particular task more efficiently. Automation saves the time and efforts of human beings. Hence, with the help of lab automation based on IOT it is possible to control apparatus, adjust the lab temperature and reduce the time and effort of a given task.

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