A Smart Office Module System Using Wireless Technology

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Abstract - This paper presents the design and implementation of Smart Home Controller wherein the user can control their devices using the Android Application running on a Smartphone. The system employs client server architecture and Internet of Things (IOT) for communication. The controller is designed with the Adriano microcontroller (Node MCU) at the consumer end and is connected to the internet through Wi-Fi. In this system, every device is connected to the internet through the IOT protocol and control is done through HTTP requests sent from the Android mobile application. The API (Application Programming Interface) connects the server and android application and allows it to interact and exchange data with the server. Whenever the user sends requests from android application, the API connects to the server and it sends request to the controller, further to which the controller performs ON/OFF function of the device based on the request received. Using this method, controlling home appliances is discussed in this paper.

Keyword :
Smart Office, Internet of Things, Office Controller, Wireless Remote Control.

I. Introduction

The power outlets in our homes have switched and socket with wired connections. A person has to physically move and operate the switch either on or off and apply or control power to the home appliance. The person who is away from home cannot either control appliances or know the current status of the same and this might result in wastage of electrical energy. Smart Office system is a term used for offices that could be controlled remotely using some kind of communication channel and communicating device and at the same time could be monitored from anywhere in the world without any human intervention. The system is control with android applications. Smart Office system is for remotely communication via channels And communication devices through the internet. This system controls with Android Apps. It is estimated that several hundreds of millions of devices are connected today. Under the on-going proliferation of the Internet of Things (IoT).In general, the smart office system is involving to control the electrical loads, it can be done by using Bluetooth, internet, Android application and Remote control. Wi-Fi-based office system is very easy to control and also eliminated wires in this process data is transmitted through the air. Bluetooth based office system control panel is interfaced with server via Bluetooth. Now the smart office are equipped with well-advanced technology is used in recent days for controlling and also many other operations can be made it.

II. Related Works

Nowadays Smart office is an important part of human life. In this work, design, development and evaluation of a network infrastructure is proposed for the smart office automation system that uses Wi-Fi technology for the control This paper introduces a wireless solution based on Internet protocol to manage the smart office units easily. Based on this approach, I design a smart office system with the implementation of related software and hardware. The system employs client server architecture and Internet of Things (IOT) for communication. The controller is designed with the Adriano microcontroller (Node MCU) at the consumer end and is connect to the internet through Wi-Fi.

References

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