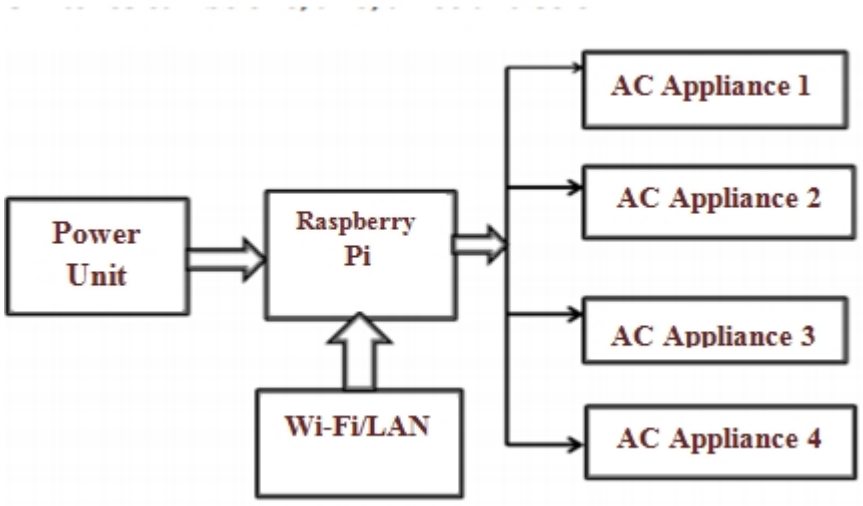
WI-FI E-SWITCH

Abstract

Wi-Fi E Switch is a web based system using Raspberrypi. As it has lot of GPIO ports which can be programmed and they provides user control over various things from smartphone like energy saving, security, smart system, surveillance, access control and entertainment. The main aim to design a system is to save time and manpower along with maintaining convenience and security. This system is simply design to provide comfort, security and it is easily accessible. Internet based Home Automation System is very convenient, easy flexible and cheap. Many devices now have Wi-Fi and can connect to Smartphones or home computers. But these devices cannot communicate with each other or else need additional devices to do so. Thus, these devices need to be unified, such that they can be monitored and controlled using one single program or device, e.g. controlling lights, fans, air-conditioners, oven, refrigerator, TV etc. by using an application on the Smartphone . Internet of Things Wireless systems can be of great help for automation systems. With the advancement of wireless technologies such as Wi-Fi, cloud networks in the recent past, wireless systems are used every day and everywhere. IOT coverage is very wide and includes variety of objects like smart phones, tablets, digital cameras and sensors. Once all these devices are connected to each other, they enable more and more smart processes and services that support our basic needs, economies, environment, health etc. Such enormous number of devices connected to internet provides many kinds of services and produce huge amount of data and information. This is very easy to install and require very less energy i.e. 0.6mV.

BLOCK DIAGRAM:



WORKING OF WI-FI E-SWITCH:

Power unit receives an input signal from an android device which is a request for ON or OFF the devices. Power unit consists of all the circuitry which will process on the signal. Central unit contain a Raspberry pi module which is a central processing unit of the overall circuit. It receives the input from the android mobile phone and as per the request, it will ON and OFF the output devices. LAN/Wi-Fi is inbuilt in a Raspberry pi module. So to open the URL\Website on Google then it will display a HTML page that consists of various switches for controlling various appliances like light, fan, TV, cooler and many more. Switches can be one, two and three and so on.