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Abstract

Twenty first century showed a phenomenal growth in wireless technology. From north to south, east to west, the world today uses varied technologies ranging from Radio Frequency (RF), Infrared (IR), Bluetooth, ZigBee and Wi-Fi. Embodied with various advantages like feasibility, easy accessibility and scalability, emerging wireless technologies have gained an extra edge over the wired installation enhancing its acceptance and usage among the masses. In today's scenario, where internet connectivity is the most sought after thing after basic amenities, and because of this very reason the design of Wi-Fi Signal Strength Indicator was undertaken. Wi-Fi Signal Strength Indicator is a compact, economical and a portable device designed to display signal strength of available Wi-Fi network present on LED display. This indicator basically has an ESP8266 module, a microcontroller unit and a LED display quantized in the form of bars. This device can display signal strength of a particular SSID that has been specified in the programming and it can be easily configured at any location as per the availability of SSID. The basic principle on which the device works is "Internet of Things", that is the network of physical objects or "things" embedded with the electronics, software, sensors and network connectivity, which enables these objects to collect and exchange data. This device can be employed anywhere at the public places where Wi-Fi is made available like universities, malls, cafes and airports. The latest Railway budget delineating and emphasising on concept of "Digital India" also had the application of such devices. There was a proposal in it to install such Wi-Fi signal indicators at railway stations and trains to make the users aware of the available Wi-Fi facility.

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Index Terms

Computer Science Wireless

Keywords

Wi-fi Ssid Rssi Ap Arduino® Adafruit Esp8266 At Commands Led Lcd And Iot