

A Smart Switch Control System Using ESP8266 Wi-Fi Module Integrated with an Android Application

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There is an increase in demand for low-cost Smart Switch Control Systems (SSCS) that can remotely control home switches or devices in residential environments using mobile applications or websites. In this paper, an SSCS which uses open-source software, and can be configured without any physical adjustment to the environment, is developed to automatically minimize energy consumption. The device comprises two parts: An Android application and a unit made up of a programmable Arduino board, ESP8266 Wi-Fi module, wall socket and an SD card. In the SSCS, the Android application is used to remotely control switches using the Wi-Fi technology. Tests carried out on the system proved its effectiveness and quick response to signals.

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