Abstract

The technological progresses fascinated the universe and gave a great opportunity to implement these progresses to design the smart house systems. This paper shows a unique design and implementation of a smart house system in a low cost. System automation is considered a great challenge especially outside the house. The proposed system controls and monitors house environment via specific webserver with respect to ESP8266 Node microcontroller anytime and anywhere remotely. The ESP works as a Wi-Fi station connected to the network through a router as an access point AP. The webserver based smart house system works under the supervision of the Net Pie website that shows the output results of the employed sensors identified by Temperature, Humidity, and Air quality. While, theses measurement can be demonstrated locally on a TFT LCD shield. In addition, the webserver allows the authorized user to turn house devices ON and OFF. Moreover, the system employs Arduino GSM shield to unveil system information intentionally as an SMS text. Finally, the GSM plays an important role with respect to the motion sensor and a camera affixed in a specific place in the house by applying triple control action such that when a motion is detected, the
camera captures the events, the GSM sends an SMS to specific phone and the alarm system is turned ON accordingly.

References


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**Index Terms**

Computer Science  Communications

**Keywords**

ESP8266 MCU systems, Smart House System, Control System Automation, GSM Based Motion Detector, Microcontroller Based Control Action.