DESIGN OF SMART CONTROL SYSTEM FOR LIGHTING, SECURITY AND ELECTRONIC EQUIPMENT MANAGEMENT BASED ON INTERNET OF THINGS

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ABSTRACT

Internet of Things (IoT) refers to a network of physical devices connected via the internet, allowing for data exchange and automatic control between them. In the context of smart homes, IoT plays a key role by enabling electronic devices to connect and communicate with each other, as well as with users through applications or control platforms such as the Blynk application. Blynk is a dashboard that can build a graphical interface for a tool that has been created simply by dragging and dropping a widget. Blynk is designed for the Internet of Things (IoT) that can control hardware remotely, store data and do many other things. In this study, a smart control was created that is used to manually set house keys, windows, lights and fans using the Blynk application or automatically using sensors. The sensor used in this study is an Ldr sensor that functions as a light detector to control the servo motor that will open the window automatically and also turn on the lights. These two components will be controlled automatically using the Ldr sensor. The data obtained on the Ldr sensor when exposed to light of 3.22 V in this condition activates the servo motor which will open the window and if not exposed to light the Ldr sensor voltage of 3.27 V turns on the light and turns off the servo motor. The accuracy level of the servo motor is 92.79 with an error tolerance of 7.21%.

Keywords*: *Iot, Servo Motor, LDR Sensor