

## IMPLEMENTATION OF AN INTELLIGENT ENERGY SAVING SYSTEM

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### ABSTRACT

With the current increase in the tariff of electricity in Nigeria, there is need to efficiently regulate power consumption so as to reduce its overbearing cost effect. This paper has presented a robust intelligent energy saving system that will efficiently regulate power consumption for domestic use. In its implementation, a microcontroller and series of sensors (e.g PIR, LDR and temperature sensors) have been used to realize the set objective. The design work was initially simulated on an electronic simulator software 'PROTEUS' before being assembled on electronic breadboard and later transferred onto a PCB. When put into test, it was found to perform satisfactorily within the limit of our experimental design.

**Keywords:** passive infrared sensor (PIR), light dependent resistor (LDR), Smart System, Microcontroller, Energy Saving, Printed Circuit Board (PCB).