DAYLIGHT AND SOLAR ENERGY OPTIMIZATION THRU SMART LIGHTING MANAGEMENT SYSTEM WITH MANUAL OVERRIDE

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Abstract

This study was developed to optimize daylight and solar energy. The prototype used four 4 watts Light Emitting Diode (LED) bulbs as experiment load. The project is capable of counting the number of persons entering the room and determining the lux produced by the sun. The lamps automatically turn on when they detected a person enters a room at the same time when the lux produced by the sun is low. The lamps automatically turn off when it is detected that there is no person inside the room or the lux produced by the sun is high. This automated device reduces energy consumption compared to the normal lighting system and can be used either in residential or any type of establishment.

Keywords:
Daylight, Solar Energy, Smart Lighting Management System