

Efficient Mood Lighting Implemented Using a FPGA Board

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Abstract

As semiconductor technologies develop at a high rate, LEDs could replace traditional light bulbs in the near future, thus an efficient and easily-adjustable lighting system for a room would need to be investigated. In this project, the lighting of a number of LEDs is controlled via PWM by a digital component, implemented on a FPGA board; sensors are used to detect if natural light is available and if the room is empty, having in mind the highest efficiency possible.