Abstract

The lighting in the workplace especially on the lecture hall is an important aspect to support teaching and learning activities. Lighting that does not meet minimum standards can cause eye health disorders.

Fuzzy logic control in this system can control and maintain stability based on a given set point despite the change in intensity of room lighting.

The system can correct the error in the amount of 150 lux, by controlling the control voltage of 5 volts so that the intensity of the ambient light remains in the position set point.

The cost of electrical energy consumption after optimization of 52.38%, resulting in cost savings of electrical energy consumption amounted to 47.62%.

**Index Terms**

Computer Science  
Fuzzy Systems

**Keywords**

Optimization, Lighting Room, Dimer, Light Sensor