

ABSTRACT

Visible light communication (VLC) is a communication system for sending and receiving information using the visible light spectrum. This communication is one type of optical wireless communication besides Ultraviolet (UV) and infrared (IR) communication.

This final project designs and implements lighting lamps that can be used to transmit data in the form of images (images) using the VLC system as the sending media. In the implementation process using 3 different types of lighting lamps with a predetermined VLC transmitter circuit. In testing the main things needed to ensure that the intensity of light in the lighting that will be used has met the lighting standards or not.

The results of this final project can utilize lighting so that it can send data in the form of images (images) using the VLC system as the sending media. Based on the results of tests carried out using parameters of distance, angle and light intensity that each type of lamp has a maximum distance limit in sending data such as 45 cm ribbon lights, 75 cm change lights and 90 cm flat lights. The intensity of light required for digital data can be received at least 60 lx.

Keywords: LED lighting lamps, LED bulb lights, LED ceiling lights,

LED Ribbon Lights, Indoor VLC, Image Transmission