

ABSTRACT

Nowadays, LED is currently only used as a light room. Though theoretically lights (LED) can be used as the high speed transmission medium. Visible Light Communication is a system that uses visible light as a transmission medium.

In the Final Project, developed visible light communication system to transmit video in Learning Center Telkom University. In this research, a prototype VLC with transmitter side uses LEDs to transmit data and on the receiver side using a photodiode, in hopes of enlarging the optimal range and receiving angle range in sending video data. The prototype testing scenario is done by changing the distance and receiving angle of the sender and receiver prototype of visible light communication.

In this study, the prototype has been made capable of working up to a distance of 50 cm. The prototype receiving corner range is 0° - 30° . As for light intensity, this system is able to work in dark and bright light conditions.

Keywords: *visible light communication, transmitter, receiver, Light Emitting Diode, Telkom University Learning Center.*