

## ABSTRACT

This Final Project conducts a study of future technologies that can provide solutions to network users' anxiety. Optical communication system is a communication system that is currently developing rapidly and is the thing that is currently being researched to become a technology in the future, one of which is rapidly developing is called technology visible light communication.

In this final project, an analysis of the visible light communication (VLC) system is carried out using modulation On Off Keying Non Return to Zero. By using four lights at a predetermined position. And making a comparison of the number of Light Emitting Diode with a receiver angle orientation of  $0^\circ$ ,  $15^\circ$ ,  $35^\circ$  circulated in a closed room measuring  $5\text{m} \times 5\text{m} \times 3\text{m}$ .

The contribution of this Final Project can determine the effect of the angle orientation of the recipient by comparing the number of LEDs to the coverage of communication, the largest communication coverage can be with a broad coverage of  $25\text{ m}^2$  and the narrowest of  $21.76\text{ m}^2$  from total coverage of  $25\text{ m}^2$

**Keywords:** Visible light communication, LED, On Off Keying Non Return to Zero, Receiver Angle