

ABSTRACT

Visible Light Communication (VLC) is a communication system for sending and receiving information/data using visible light. The use of visible light as a communication medium offers several advantages, namely one of which is harmless to human health, inexpensive and easy to implement because the infrastructure is available namely lighting devices.

In this Final Project a data transmission system from vehicle lights using visible light has been designed and implemented, this tool consists of several Components that are used on the sending side (Tx) are LED lights, light amplifiers and IRF520 Mosfet modules that are connected to Arduino UNO.

From the results of the tests that have been conducted, it shows that the 100% system successfully provides information sent by vehicle lights to the modified fence system. The results obtained from the maximum distance of data transmission are 2 meters from different angles with the intensity of light in the shipping area below 279.

Keywords: Visible Light Communication (VLC), Light Transmission, Transmitter, Manchester encode, Automatic Gate