

ABSTRACT

Along with the development of technology in the field of telecommunications, wireless systems have begun to be updated, one of which is Light Fidelity (LiFi). LiFi is a technology developed from Visible Light Communication (VLC). Several studies that have been published show that LiFi technology can be used as an access point to transmit data. However, from several studies that have been published, there has been no research that discusses the menu ordering system in cafes based on Lifi technology on the menu ordering system in cafes using Raspberry Pi.

The result of this final project is a LiFi technology-based tool that can print the menu that has been inputted through the cafe ordering menu application found on the infrared link. The test scheme that has been carried out proves the success of the system in this final project, namely the thermal printer on the VLC link system can print data containing the customer's table, the ordered menu and the total price of the ordered menu. At a distance of 190 cm Tx and Rx links VLC can still transmit and receive information. Packet loss testing shows 0% results that all data can be sent. The average delay value on the VLC link is 0.43 seconds or 430 milliseconds which proves the quality of the information transmitted is quite good.

Keywords: Light Fidelity, Infrared, Visible Light Communication, Raspberry Pi, Thermal printer, Packet loss, Delay