

ABSTRACT

Research on VLC technology in universities TT D3 Telkom Prodi, among others, the implementation of visible light communication (VLC) to the sender of the text using LEDs and the text using a photodiode receiver. In this study with the results of text data can be received by the Receiver perfectly at a distance of 2 meters and use baudrate 9600 bps.

In this study, has been in ujikan VLC systems for digital data receivers such as text using the baudrate 1000000 bps on Software Tera Term. Text data is received perfectly with a distance of 5 cm and 40 cm. At the receiver block consisting of recipient information, FTDI USB, receiver software that is Tera Term text in windows, ic optocoupler as a photodiode and amplifier circuit catcher source of light that the photodiode.

The results of this final project is able to receive digital data such as text through a computer 1 to computer 2 using the VLC system. Test parameters of success are receiving distance can reach 40 cm, and can receive all the characters from letters, numbers, and symbols with the maximum angle formed ie delivery of 0° , 5° , 10° , 15° up to 20° .

Keywords: *Photodiode, VLC for penrima text, block Receiver VLC, Software Tera Term, IC Optocoupler*