ABSTRACT

One of the data delivery model that is widely used in life is to use radio frequencies or better known as wireless. Wireless or radio frequency technology is used for transmission of signals by modulation of the input signal and transmitting it by using electromagnetic waves. These waves propagate across and through the air and can also propagate through the vacuum of space. Transmission using radio effectively and efficiently be assessed, but its many shortcomings, among others, the used frequency range is very limited examples fm radio range (80-108) MHz, a frequency license fee in the manufacture of relatively expensive and long distance transmitter with relatively very expensive.

In this final project is realized through a data transmitter and receiver of light transmission, this device consists of an electric lamp as the light modifier, photodioda as a modifier to the electric light, and acceptance data. Through the realization of this tool we can know that the data transmission can occur through the light, can be used to transmit data. Ditranmisikan data in this final project is output from the audio data in the form of mp3 player on the transmitter and the receiver is used to display the audio sound speakers.

This tool can send data over the visible light transmission by sending voice data without the noise power as far as 5 meters with 0.14 w. Based on the results of this final project is found that a comparison of distance and received power is inversely proportional, ie if the farther the distance between transmitter and receiver the received power will be smaller. This tool can be applied as a speaker without wires by using light as a transmission medium datanya.Alat is likely that the creation of a new method of data transmission through the light.

Keywords: Lamp Lights, Data, Light Transmission, Data Transmitter, Receiver Data,audio