**Ministry of Higher Education** 

And Scientific Research

University of Diyala

**College of Engineering** 

**Communication Engineering Department** 



## THE TRANSMISSION OF THE VOICE SIGNAL THROUGH LASER BEAM

## A Project

Submitted to the Department of Communication University of Diyala-College of Engineering in Partial Fulfillment of the Requirement for the Degree of Bachelor in communication Engineering

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## **Abstract**

An optical communication system is designed to transform the audio signal for a distance about 5m by using red semiconductor laser beam that has power of 1mw, also for distance 100m by using green semiconductor laser beam which has power of 50mw, the system can be used to transform different types of data such as digital or analogue signals in oriented form because the frequencies of laser do not interfere with each other. High secrecy is obtained by using optical communication systems due to the directionality of laser beam, also low cost is needed to setup these systems because there is no need to use retransmission and amplification systems between the transmitter and receiver for the same distance that is covered by wireless communication.

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