

DEVELOPMENT OF
A
LIGHT COMMUNICATION LINK

Project Report Submitted by

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Summary

In this project titled " Development of a light communication link " the various links are studied and the development of a fiber optic communication link is carried out.

The unit constructed can be considered as an experimental one, primarily designed for demonstration purposes. It is made up of two main parts: the transmitter and the receiver unit. These can be connected with mainly two ways between them which are light propagation directly through free space or through a fiber optic. Demonstration procedures are also provided.

The procedure for the development of both parts, includes three basic stages:

1. Design
2. Construction and
3. Testing

Design includes the study of several approaches to the solution of the problem, taking into account several factors, such as availability of components, feasibility of construction and of course, it's economical aspect.

Construction is to bring design into practise. In other words is the construction of the PCB's and the mounting of the various components to form it's circuitry.

Testing has been performed using various instruments like signal generators, oscilloscopes etc, to test and calibrate in order to have good response of the system.

A chapter deals with the different types of instruments used in fiber optics such as testers, instruments that measure fiber loss etc.

Finally, theory of the various types of fiber optics and optoelectronic devices is given as reference for the user.

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