**LIFI DATA TRANSFER SYSTEM**

**ABSTRACT**

LiFi technology utilizes LED’s for transmitting data. It is subsidiary of optical remote communication technology utilizing light from LED to convey rapid communication. Apparent light communication works by turning the LED now and again at exceptionally high velocity, it can’t be seen by the human eye.

So here we develop a data transfer system that uses the Li Fi technology. This system serves the following advantages:

* High Speed Data Transfer
* No Wires Needed
* Reliable Communication with No Data Loss
* Low Cost of Developing the System

The system makes use of a LDR sensor module along with Atmega Microcontroller, LCD display, basic electronics components, power supply and PCB board to develop this system. The system allows us to use LIFI medium for data transfer.

We make use of a LiFi transmitter android app to demonstrate this concept. The app converts written text message into light flash data for transmission. The user needs to start the app and type the message to be transmitted.

On sending the message the app controls the mobile phone flashlight to transmit the message. The phone encodes the message into a series of flashed and transmits this data using the mobile torch light.

This light message as it falls on the LDR receiver, it is decoded and sent to the microcontroller for processing. The Atmega microcontroller decodes and processes the message sent and then displays it over an LCD display to complete the data transmission.

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