

Under Water Audio and Data Transmission through LI-FI Technology

Due to the radio wave problem with the medical instruments the “Wi-Fi” technology become a problem facing these challenges due to the interference of radio waves which may be harmful for the patient. Multiple accesses “Wi-Fi” is having many challenges starting from the capacity, availability, efficiency and security. Moreover, Wi-Fi transmit radio waves that may effect on medical instruments. In this project a proposed transmitter and receiver based under water communication on “Li-Fi” technology communication by using “LEDs” which is line of sight only was done.

Transmitter circuit via the computer is connected to the LEDs that send the Light signal through water, while the receiver will receive via the solar. The audio signal is output directly from the computer from the sender and the light signals, the detector receives it and amplify that low signal to high signal and give the output audio through speaker.

Main features present in the project:

- The aim of this project is to design and implement an underwater wireless data transmitter and receiver device based on Li-Fi Technology.

Components used:

- Power supply.
- PC through audio.
- Three IR LEDs.
- Comparators.
- LEDs.
- Solar.
- Speakers.

Software used:

- Express SCH for circuit design.



Block Diagram of proposed system

