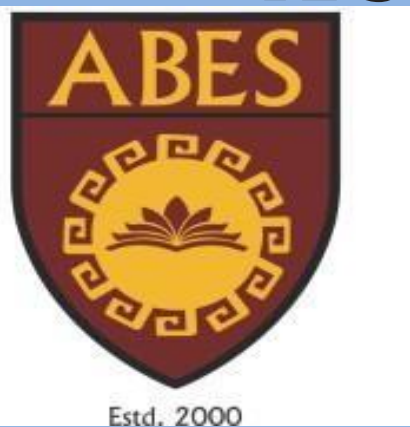


AUDIO AND DATA TRANSFER THROUGH LIFI TECHNOLOGY



TEAM MEMBERS

APURV KUMAR (2000320319001) MOHD ANAS (2000320319002)
ANSHITA YADAV (1900320310027)

UNDER THE GUIDANCE OF

Ms. Ranjeeta Yadav
(Assistant Professor (ECE dept)

Prof. (Dr.).Sanjay kumar Singh
(HOD -ECE)

ABSTRACT:

Over the course of the before ten years, a lot of research has been done to look into other parts of the electromagnetic spectrum that are might be able to move a lot of network traffic from the overcrowded radio frequency (RF) domain. OWC, or optical wireless communication, is now a viable alternative to the issues that will arise as a result of the upcoming radio frequency RF spectrum crisis, particularly in certain locations and situations.

PROBLEM STATEMENT:

Power Consumption: Since Lifi requires light to transmit data it can consume a lot of power. This can be a significant challenge in situation where battery powered devices are used at the constant use of LiFi for data Transfer can drain the battery quickly.

Security: LiFi Signal can be intercepted by malicious which poses a security threat to the data being transmitted.

BLOCK DIAGRAM:

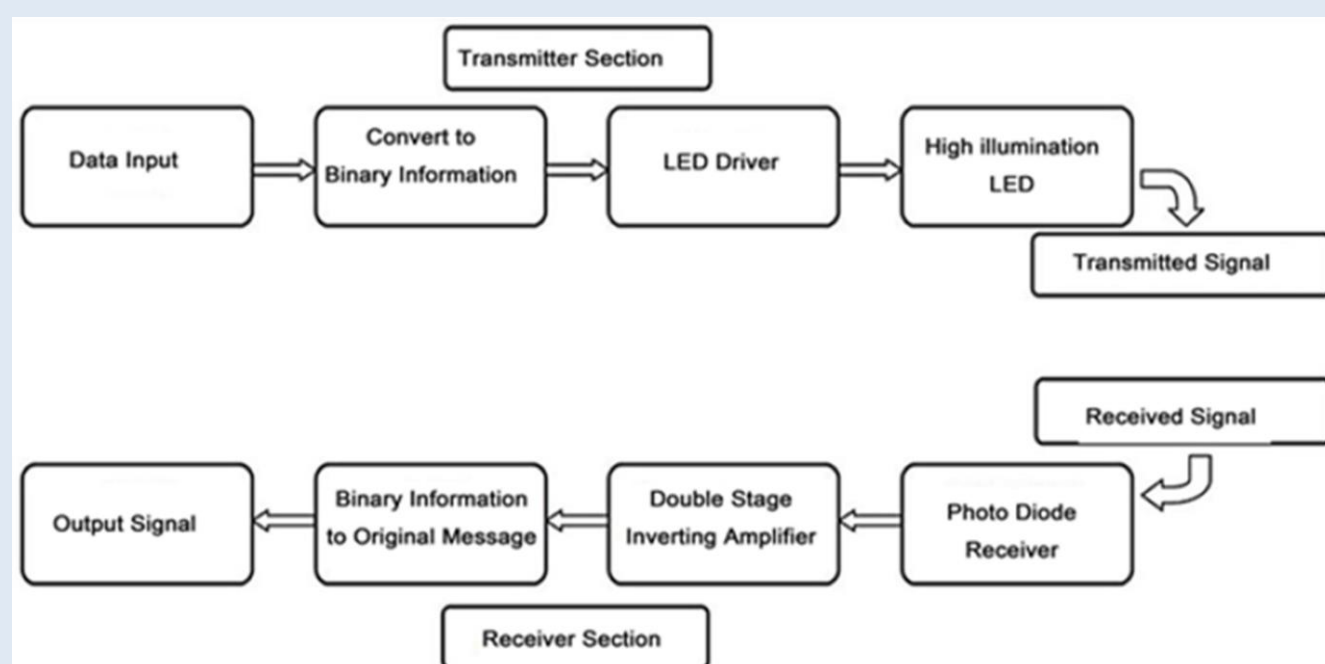


Fig 1:-Block Diagram

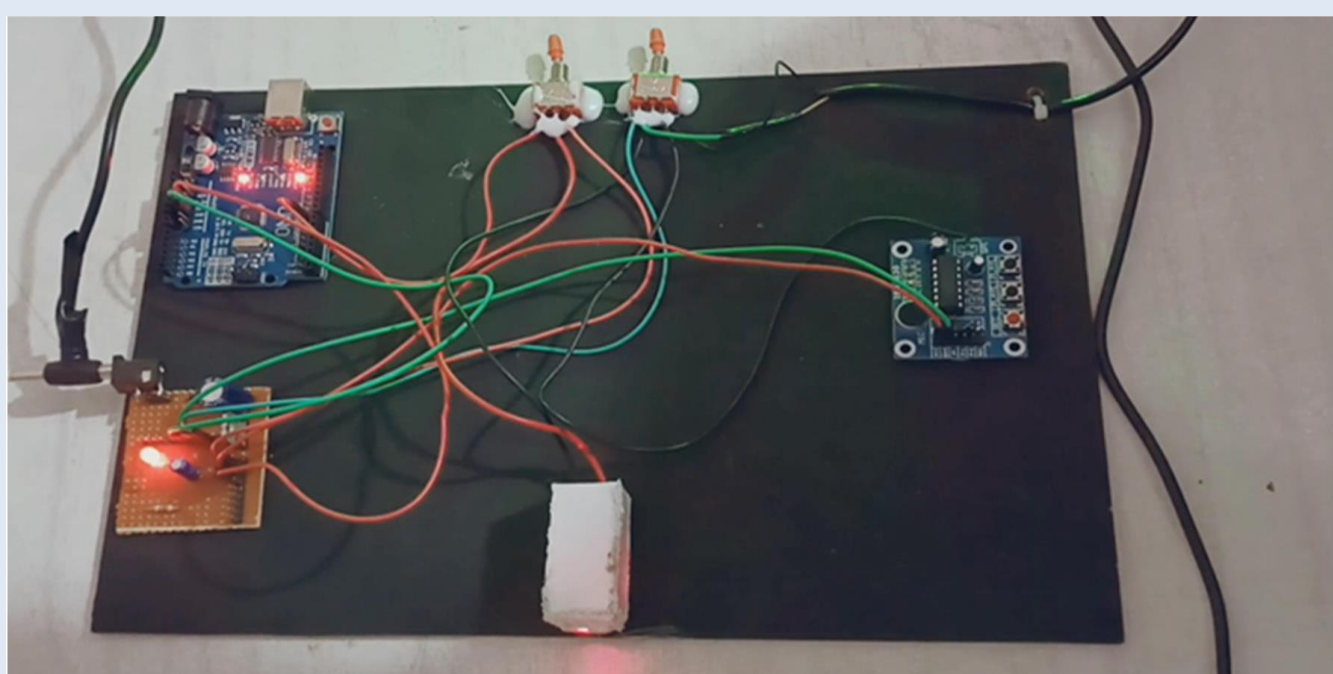


Fig 2:- Hardware

APPLICATION:

- i. Lifi in Hospital
- ii. Lifi In School
- iii. Lifi In Industry
- iv. Lifi In Under Water

FUTURE SCOPE:

Li-Fi is an emerging technology and hence it has vast potential. A lot of research can be conducted in this field.

The future of Li-Fi is Gi-Fi. Gi-Fi or gigabit wireless refers to wireless communication at a data rate of more than one billion bits (gigabit) per second.

CONCLUSION:

With the help of a light source on the transmitter side, we were able to move the voice and text that were recorded at a temperature to the receiver side. The text is displayed precisely, the temperature is accurately detected, and the speaker makes an appropriate sound.

In this section, we demonstrate how visible light can be incorporated into a communication system. This system can be used with the infrastructure that is already in place without requiring significant modifications.

REFERENCES:

1. Mesleh, R., Elgala H. and Haas, H., —Indoor Optical Wireless Communication: Potential and State-of-the- Art, || IEEE Commun. Mag. 49, 56–62 (Sept. 2011). ISSN: 0163-6804.
2. Sapna Mamidkar, Rasmiranjan Samantray “A Survey on Li-Fi Technology and Its Applications” Archived from International Journal of Science and Research Volume 7 Issue 7 pp;1388-1392 July 2018.