



Li-Fi Future Technology In Wire less Internet



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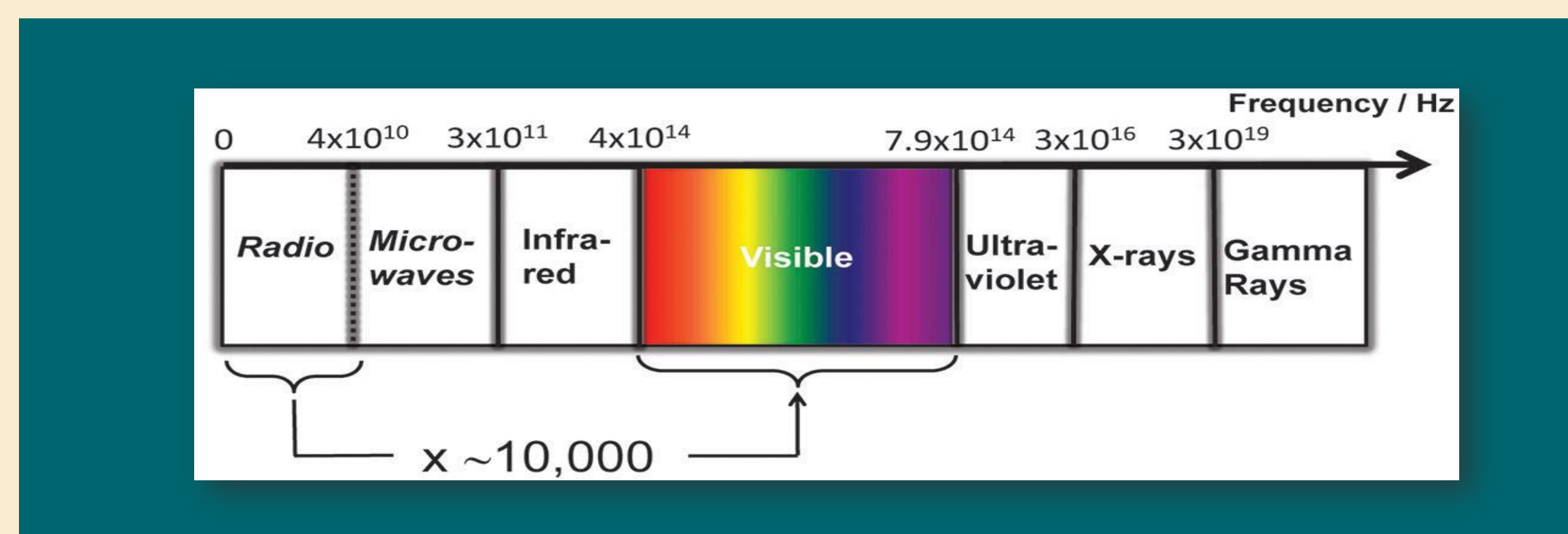
01 Abstract

Li-Fi stands for Light -Fidelity. Li-Fi technology provides transmission of data through illumination. Li-Fi can be thought of as a light based Wi-Fi, in which we use light instead of radio waves to transmit information. we construct a Li-Fi system that transferred a audio file at shorter distance.



02 Introduction

After many years of using radio waves, researchers find a solution safer and inexpensive named LI-FI technology (is a form of visible light communication) the first appearance of this technique was by Dr.harald haas from the university of Edinburgh at his 2011 ted global talk, LI-F is wireless optical networking technology that uses LED for transmitting data, the working process is very simple if the led is on it transmit a digital 1 if the led is off it transmit a digital 0 switching on and off very quickly that can transmit data.



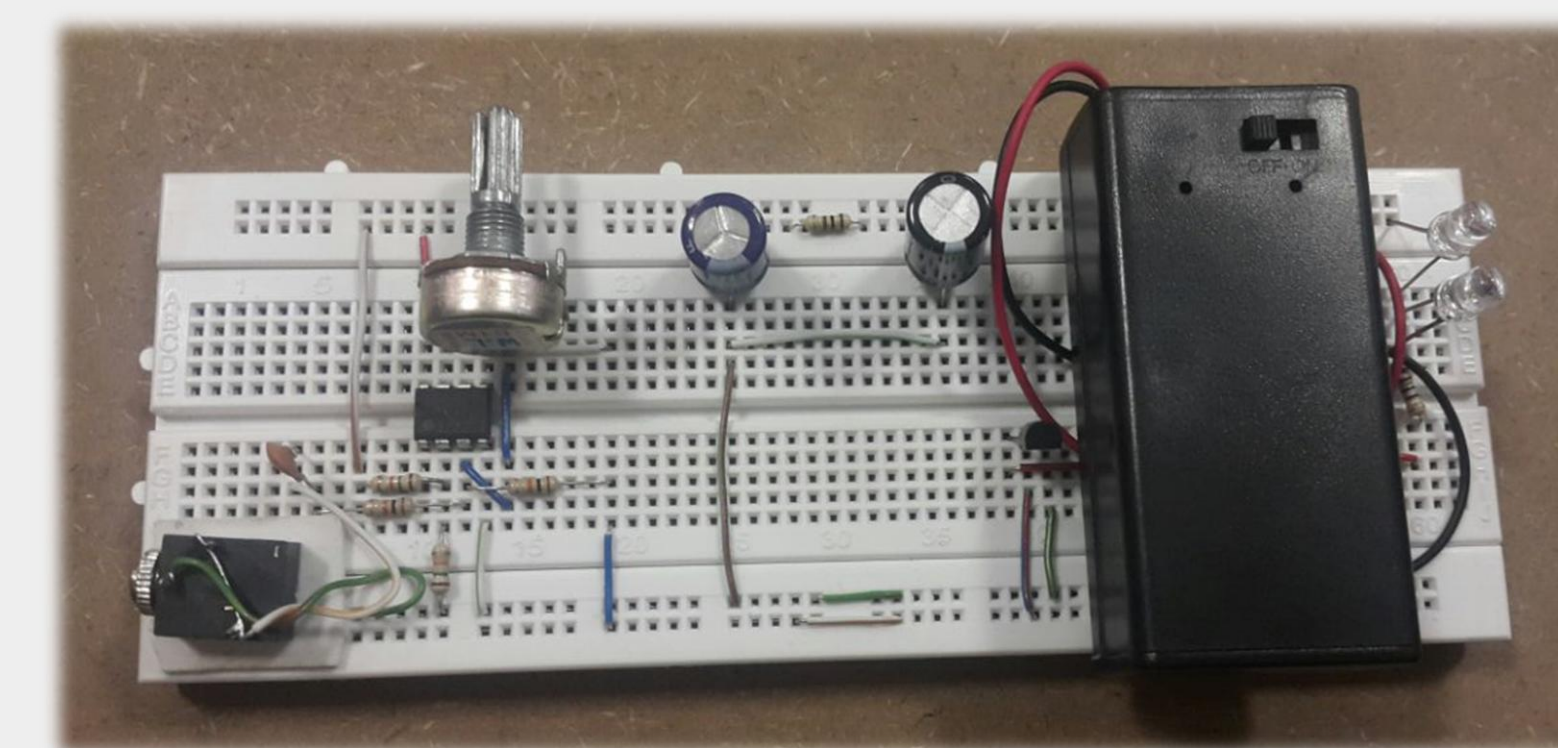
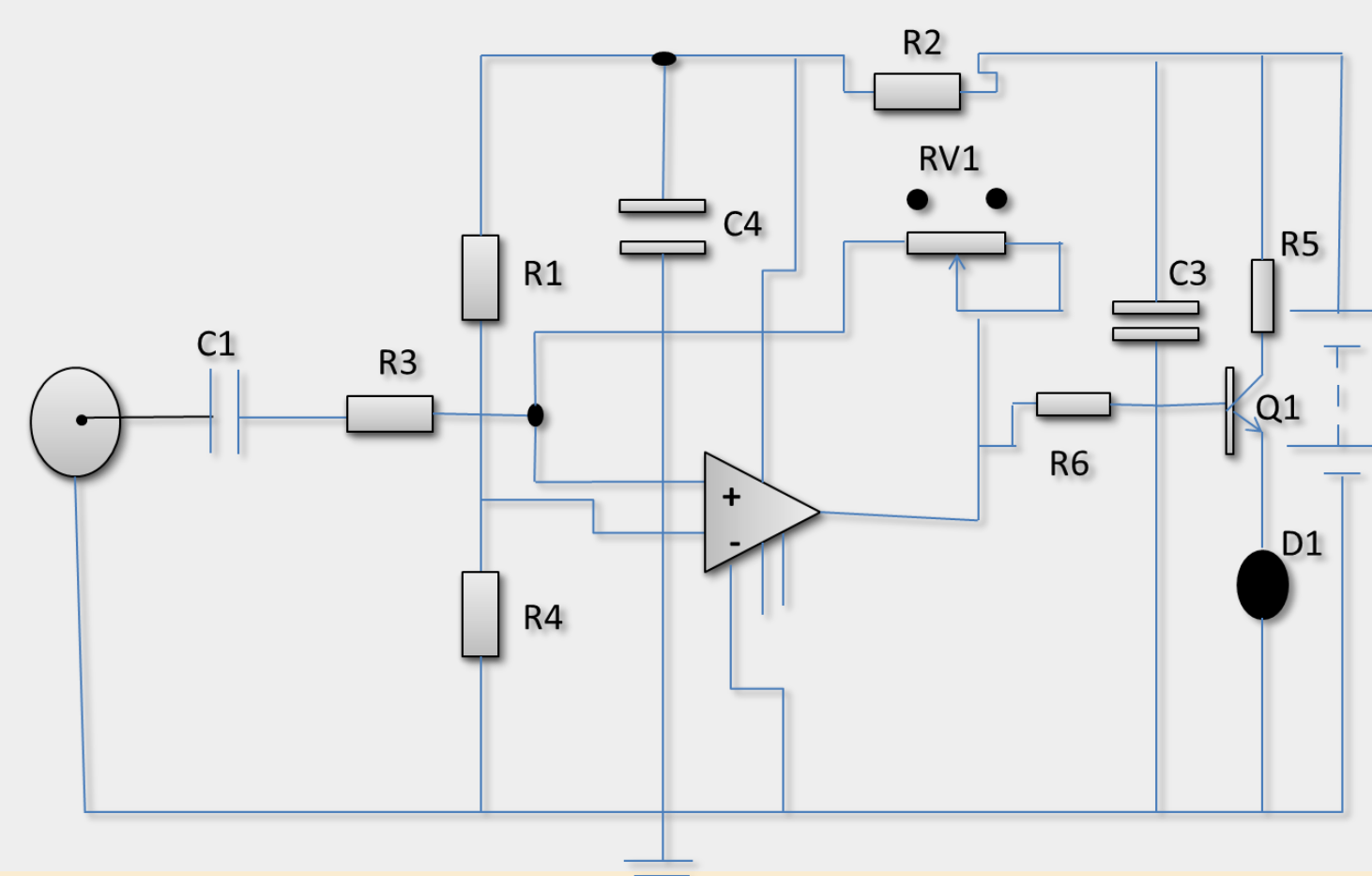
03 Comparaision between Wi-Fi and Li-Fi

Parameter	Li fi	Wi fi
Speed	High	High
Range	Law	Medium
Data density	High	Law
Security	High	Medium
Reliability	Medium	Medium
transmit\recei ve power	High	Medium
Device-to- device connectivity	High	High
obstacle interference	High	Law
Market maturity	Law	High

04 Component Of Li -Fi System Are As Follows

Li -Fi system contains two parts :

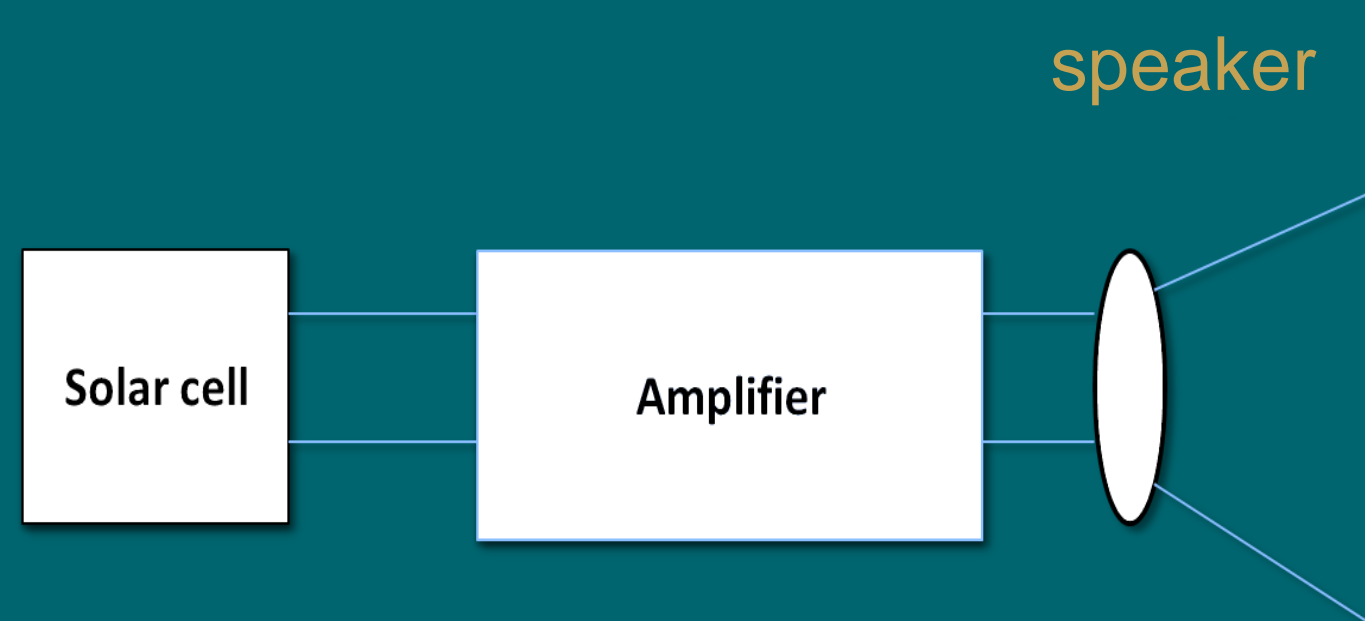
Part 1: Transmitter



➤ Transmitter

This part of the circuit responsible for transfer audio ,transmitter contain Resistors , LED (white), Capacitors and Battery. From Audio input, we get very low audio signals . these signals paces through C1 where DC components are removed and through R3 current limit for comparator (op-amp) through R1 and R4 voltage limit to $9v/2 = 4.5v$, here transistor work as modulator and amplifier , C3, C4 are filters to reduce ac components spike in circuit For an audio source we use ,mobile phone

Part 2: Receiver



➤ Receiver

This part of the circuit responsible for capture waves light by solar cell, The receiver consists solar cell ,speaker with an amplifier. The amplifier need not to be the same illustrated here, but we use any amplifier lying around your house. But make sure it as good sensitivity.

05 Conclusion

- 1)Li-fi will make are live more technology in the near future .
- 2)The LED of light it can make our world safer and more over a brighter place to live .
- 3)future application can be predicted and extended to different platforms and various walks of human life
- 4)Soon ,Li-fi will be replaced by Wi-Fi .
- 5)Reports say that the growth will be elevated 83% by the year 2018.

➤ Future Works

Praise of God We have succeeded in voice transmission by Li-Fi technology of light, and we hope in the future to convey Video