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A NOVAL APPROACH ON DATA TRANSMISSION USING WIFI

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ABSTRACT

In today’s globalized world, systems, applications and people need to be permanently connected to the internet, a variety of communications networks and several different devices simultaneously. The problem of accessing data in remote areas where wired network is unreachable is solved by Broadband Wireless Network Technology. This technology has brought a drastic change in sharing and communication of data irrespective of distance and location. In this paper we have presented a modern approach towards use of Wi-Fi for the data transmission, the main aim of the research is aimed to provide dual security of the Data to the user in a very limited area and at low cost. Our models are practical because their inputs are easily available on mobile platforms without modifying low-level software or hardware components.

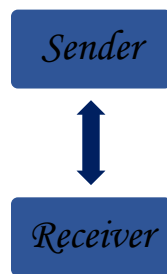
KEYWORDS: Wi-Fi, Data Transmission, Network, Adapter, IP Address.

INTRODUCTION

Data Transmission

Data transmission is the physical transfer of data over point to point or point to multi-point communication channels. Example of such channels are copper wire, optical wire, wireless communication channels, etc. The data transmission belongs to telecommunication and computer networking application for example routing, switching, and inter process communication.

Figure:



Data Transmission

- 1. Simplex: In this mode data can be send only in one direction from sender to Receiver.

- Eg: Radio, Television,
- 2. Half Duplex: In this mode flow of data is Unidirectional.,Sender will send the message and Receiver will receive it . After receiving the message the Receiver will send the message and sender will receive it but one at a time.
Eg: Walkie- Talkie.
- 3. Full duplex: In this mode, communication of data is bi- directional , the sender and receiver will send and receive the message at the sametime.
Eg: Lan Cable.

Communication channel

In computer networking a communication channel refer to physical transmission medium such as wire for example CAT-5/6 cable. A channel has a certain capacity for transmitting information, often measured by its bandwidth in Hz or its data rate in bits per second. Communicating data from one location to another requires some form of pathway or medium. These pathways, called communication channels, use two types of media: cable (twisted-pair wire, cable, and fiber-optic cable) and broadcast (microwave,

satellite, radio, and infrared). Cable or wire line media use physical wires of cables to transmit data and information.

MATERIALS AND METHODS

Project

The aim of project is to transmit data between two computers using Wi-Fi & IP configurations. The project can easily overcome tradition data transmission techniques like use of pen drives, hard drives, disk drives, etc.

There are various techniques to transmit data between two computers like using of bridge cable, Wi-Fi through.

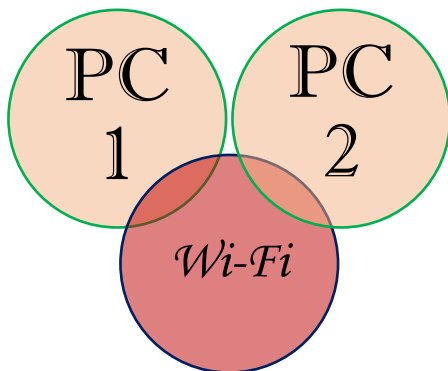
A. Material

1. A Wi-Fi network
2. Two computers.
3. Two static IP address.

B. Methodology

Here two Personal Computer are Connected for Data Transmission Using Wi-Fi.

Figure:



Data Transmission through Wi-Fi

C. Work

1. Connect to similar Wi-Fi network on both computer.
2. Connect both computer with Wi-Fi network.
3. Open control panel go to Network & Internet option.
4. Open network & sharing center

5. Go to change adapter setting
6. Click on Wi-Fi.
7. Open IP version 4 & click enter any IP address
8. Save it
9. Go to network & internet option
10. & open change adapter setting
11. Turn on all options
12. Save it.

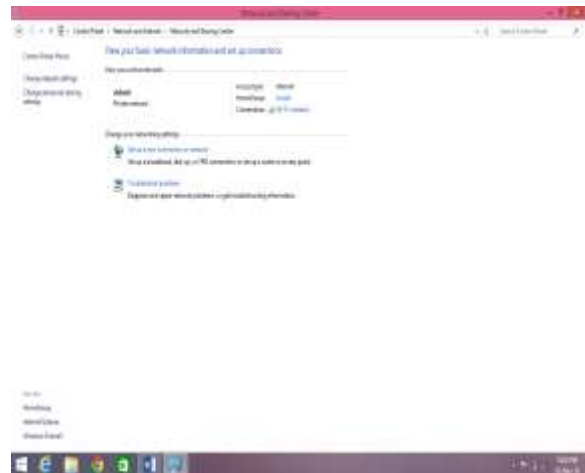
Above steps to be followed on 2nd computer also enter IP address of same range.

RESULTS AND DISCUSSION

Figures:



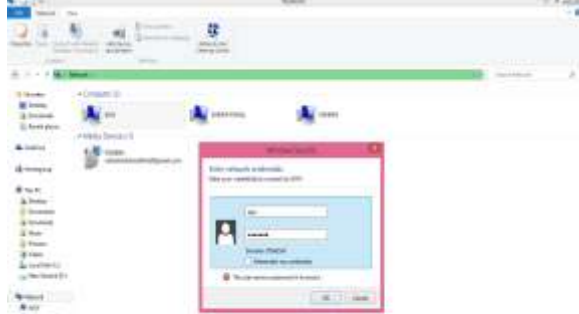
Connect to same Wi-Fi network on both computer.



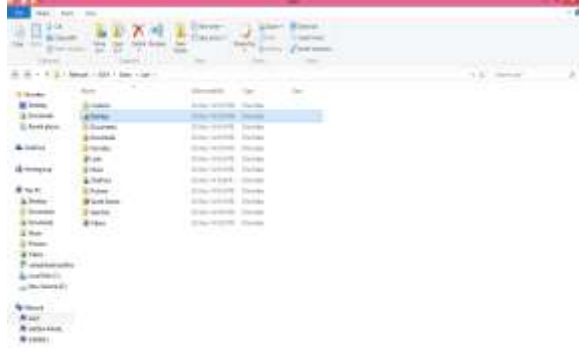
Open Network & Sharing center in Network & Internet option.



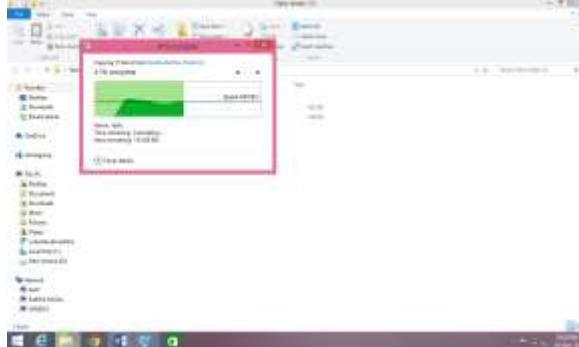
Enter username & password to get access.



Username & password entered to gain access.



You will see the folder name that you had sheared copy & paste it.



Access gained.

CONCLUSION

Data transmission is the physical transfer of data over point to point or point to multi-point communication channels.

This study led to a positive evaluation of the Wi-Fi networks. The low cost and simplicity of adoption tends to predict an accelerated increase in their use and the transfer rates offered by this type of network is entirely compatible with the necessity of small-scale residential and commercial environments. The aim of project is to transmit data between two computers using Wi-Fi & IP configurations.

With current resources, it is possible to consider the use of wireless network interfaces and wireless personal area networks that will enable great advances in communication between consumer electronic devices. Hence data transmission is possible by using Wi-Fi network.

ACKNOWLEDGEMENTS

Today many data transmission facilities are available like pendrives, cables, etc. But transmission through Wi-Fi is a high end transmission which is more secure, reliable & cost effective technique available.

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