

TITLE:

To implement a basic function of Code Division Multiple Access (CDMA) to test the orthogonally autocorrelation of a code to be used for CDMA operation.

AIM:

Basic function of Code Division Multiple Access (CDMA).

OBJECTIVES:

To understand function of CDMA used to test orthogonally and autocorrelation of a code

SOFTWARE & HARDWARE REQUIREMENTS:

OS.: Unix or windows 7/8/10,

Processor: i3/i5/i7

Software: Python (Jupyter Notebook) or java

Title: Simulate BER Performance over Rayleigh Fading wireless channel with BPSK Transmission

Problem Statement:

Simulate BER Performance over Rayleigh Fading wireless channel with BPSK Transmission for SNR 0 to 60 db..

Objectives:

- What is a Rayleigh Fading
- Study of BPSK transmission

Software Requirements:

- Windows 7/10/11
- Matlab

Title: Configure a Cisco Router as a DHCP Server

Problem Statement:

Configuring a Cisco Router as a DHCP Server.

Objectives:

- ☐ What is a DORA PROCESS?
- ☐ Benefits of DHCP
- ☐ How it works?

Outcome:

Deploy Client-Server architectures and prototypes by the means of correct standards and technology to assign IP address.

Software Requirements:

Open-source Linux operating system, Cisco Packet Tracer.

Aim: To understand the handover mechanism.

Objectives:

To study the effect of handover threshold and margin on SINR and call drop probability and handover probability

Prerequisite:

Operating System: Windows 7

Java Version: 6 only

Mozilla Firefox: version: 47.0.1

Link to download software:

<https://drive.google.com/uc?id=0B9mNeu43jUidckFYVTlnenpJRGs&export=download>

- Step9: To redo experiment click on RESET button.

Observation Table:

Reuse	No of Hand Off	Mobile Speed	Outage	Outage Percentage
1	1	50	16464.0	80.77
3	1	50	0.0	0.0

Keep reuse ratio 3 and set mobile speed to 50 mps and 100 mps and record the below data. What do we observe after increasing the speed of the mobile station?

Reuse	Mobile Speed	No of Hand off	Outage	Outage Percentage
3	50	3.0	0.0	0.0
3	100	10.0	392.0	1.94

Title: File sharing by using TCP Protocol

Problem Statement:

To Perform File Transfer in Client & Server Using TCP/IP.

Objectives:

- What is a socket?
- The client-server model.
- Remote Communication

Outcome:

Develop Client-Server architectures and prototypes by the means of correct standards and technology

Software Requirements:

Python, Open-source Linux operating system.

TITLE:

To plot BER for AWGN Channel using python

AIM:

To Study AWGN channel and to measure Bit Error Rate.

SOFTWARE & HARDWARE REQUIREMENTS:

OS.: Unix or windows 7/8/10,

Processor: i3/i5/i7

Software: Python (Jupyter Notebook) or java