Course Number and Name

BEC6L1- COMPUTER COMMUNICATION AND NETWORKS LAB

Credits and Contact Hours

2 and 45

Course Coordinator's Name

Ms M.Sowmiya Manoj

Text Books and References

LAB MANUAL

Course Description

- To understand the working principle of various communication protocols.
- To analyze the various routing algorithms.
- To know the concept of data transfer between nodes.

Prerequisites	**Co-requisites**
Communication Engineering - I Lab	Computer Communication and networks

required, elective, or selected elective (as per Table 5-1)

required

Course Outcomes (COs)

CO1: Understand fundamental underlying principles of computer networking

CO2: Understand details and functionality of layered network architecture.

CO3: Apply mathematical foundations to solve computational problems in computer networking

CO4: Analyze performance of various communication protocols.

CO5: Compare routing algorithms

CO6: Practice packet /file transmission between nodes.

Student Outcomes (SOs) from Criterion 3 covered by this Course

COs/SOs	a	b	c	d	e	f	g	h	i	j	k
CO1	H					M		L	H		M
CO2	M	L	H	M	M					M	
CO3	M			H					M		
CO4	M	M			H		M				H
CO5		M	H							L	
CO6						H					

List of Topics Covered

1. PC to PC Communication Parallel Communication using 8 bit parallel cable

Serial communication using RS 232C

2. Ethernet LAN protocol: To create scenario and study the performance of CSMA/CD protocol through simulation

3. Token bus and token ring protocols: To create scenario and study the performance of token bus and token ring protocols through simulation

4. Wireless LAN protocols: To create scenario and study the performance of network with CSMA / CA protocol and compare with CSMA/CD protocols.

5. Implementation and study of stop and wait protocol

6. Implementation and study of Goback-N and selective repeat protocols

7. Implementation of distance vector routing algorithm

8. Implementation of Link state routing algorithm

9. Implementation of Data encryption and decryption

10. Transfer of files from PC to PC using Windows / Unix socket processing