



Techno India N.J.R. Institute of Technology

Academic Administration of Techno N.J.R. Institute

Lab Deployment

Name of Faculty: Mr. Akhilesh Arya	Subject Code: 6EC4-21
Subject Name: Computer Network Lab	Semester: VI
Department: Department of Electronics and Communication Engineering	
Total No. of Labs Planned: 9	

COURSE OUTCOMES

At the end of this course students will be able to:

CO1: Understanding of routing and network management techniques

CO2: Recognize the different internetworking devices and their functions

CO3: Analyze the features and operations of various protocols working on different layers in a network

Lab No.	Practical
1.	Study and use of common TCP/IP protocols and term viz. telnet, rlogin, ftp, ping, finger, Socket, Port etc.
2.	DATA STRUCTURES USED IN NETWORK PROGRAMMING: Representation of unidirectional, Directional weighted and unweighted graphs.
3.	ALGORITHMS IN NETWORKS: computation of shortest path for one source one destination and one source –all destination
4.	SIMULATION OF NETWORK PROTOCOLS: Simulation of M/M/1 and M/M/1/N queues.
5.	SIMULATION OF NETWORK PROTOCOLS: Simulation of pure and slotted ALOHA. Simulation of link state routing algorithm.
6.	Case study : on LAN Training kit Observe the behavior & measure the throughput of reliable data transfer protocols under various Bit error rates for following DLL layer protocols a. Stop & Wait b. Sliding Window c. Go-Back-N and Selective Repeat

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7.	Case study : on LAN Training kit Observe the behavior& measure the throughput under various network load conditions for following MAC layer Protocols a. Aloha b. CSMA, CSMA/CD & CSMA/CA c. Token Bus & Token Ring
8.	Software and hardware realization of the following: Encoding schemes: Manchester, NRZ
9.	Software and hardware realization of the following: Error control schemes: CRC, Hamming code.

TEXT/REFERENCE BOOKS

1. Tanenbaum; Computer Network, 4th Ed., Pearson
2. Kurose, Ross; Computer Networking, 3rd Ed., Pearson
3. Peterson, Davie; Computer Networks, 4rd Ed., ELSEVIER

For Techno India NJR Institute of Technology
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