

Computer Networks Lab

Course Code	20CS3552	Year	III	Semester	I
Course Category	PCC	Branch	CSE	Course Type	Practical
Credits	1.5	L-T-P	0-0-3	Prerequisites	-
Continuous Evaluation :	15	Semester End Evaluation:	35	Total Marks:	50

Course Outcomes

Upon successful completion of the course, the student will be able to		
CO1	Apply different design techniques for solving problems	L3
CO2	Implement programs as an individual on different modern tools/online platforms.	L3
CO3	Develop an effective report based on various programs implemented	L3
CO4	Apply technical knowledge for a given problem and express with an effective oral communication	L3
CO5	Analyze outputs using given constraints/test cases	L4

Contribution of Course Outcomes towards achievement of Program Outcomes & Strength of correlations (3:Substantial, 2: Moderate, 1:Slight)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1													3	
CO2					1				2					
CO3										2				
CO4										3				
CO5		3												

Syllabus		Mapped CO
Exp. No.	Contents	
1	Identify different types of Network devices/cables and practically implement the cross-wired cable and straight through cable using crimping tool.	C01, C02, C03, C04, C05
2	Demonstrate connectivity of wired & wireless devices in Local Area Network using Hub, Switch and Router.	C01, C02, C03, C04, C05
3	Experiment with the basic network commands like Ping, IPCONFIG, and Tracert in real networks.	C01, C02, C03, C04, C05
4	Analyze Network Traffic Using Wireshark tool/ TCP dump tool	C01, C02, C03, C04, C05
5	Implement Framing Mechanism using any Programming Language.	C01, C02, C03, C04, C05
6	Implement Error Detection technique using any Programming Language.	C01, C02, C03, C04, C05
7	Experiment with configuration of Host IP, Subnet Mask and Default Gateway of a device in LAN and establish Peer to Peer network connection.	C01, C02, C03, C04, C05
8	Demonstrate Static and Dynamic Addressing Mechanisms.	C01, C02, C03, C04, C05
9	Implement Unicast Routing Algorithm using any Programming Language	C01, C02, C03, C04, C05
10	Demonstrate Network Address Translation (NAT)	C01, C02, C03, C04, C05
11	Show the working of Application Layer Protocols - FTP, DNS, Telnet	C01, C02, C03, C04, C05

Learning Resources

Text Books

1. Data Communications and Networking, Behrouz A. Forouzan, Fifth Edition, McGrawHill

References

1. Computer Networking A Top-Down Approach, James F. Kurose, Keith W. Ross, Sixth Edition, Pearson Education
2. Computer Networks - A Systems Approach, Larry L. Peterson, Bruce S. Davie, Fifth Edition, Morgan Kaufmann.