



Course Name: Network Essentials

Course Code: T3224

(UG/PG): UG

Number of Credits: 2

Level: 1

Learning Objective(s): This course teaches the basic concepts and terminology of networking. After completion of the course the student will be able to define network and familiar with the network topologies, protocols.

Pedagogy:

Lecture
Case Study

Pre-requisites: NA

Course Outline:

Sr. No.	Topics	Hours
1	Introduction: Uses of the computer network, LAN, WAN, MAN, wireless network. Network Topology, Network Architecture, Data and Signals	5
2	Internetworking devices: Repeater, Bridge, Hub, Switch, Router, Gateways	4
3	Layered Architecture, Design issues of the layers, OSI reference model. The Physical Model: Transmission Media	3
4	TCP/IP Suite Layers of TCP/IP models, Protocols, IP Addressing, subnetting, Domain Name System (DNS)	12
5	Troubleshooting with TCP/IP Utilities Ping, Tracert, Netstat, ARP, Ipconfig, Nslookup	3
6	Network Security: Virus and Anti Virus, Firewall (types and functionality)	3
	Total	30

Book Recommended:

1. Computer Networks by Andrew Tanenbaum
2. Data Communications and Networking, Behrouz A. Forouzan

Research Papers/Articles recommended for reading:

Suggested Evaluation Methods:

Written Test

Online quiz

Viva

Parallel/Similar courses the existing curriculum:

Sr.No.	Name of the course	Institute where it was offered

Name of Member					
Designation					
Org. / Inst.	SICSR				
Signature					

Name of the Expert:



Signature:

Date: