

II YEAR SEM-1I B.Tech CSE	CORE	L	T	P	C
CODE:CS2202	COMPUTER NETWORKS	2	2	0	4

Unit-I: Introduction: Network Hardware, Network Software, References Models. Introduction to The Physical Layer. The Data Link Layer1 : Data link Layer Design Issues, Error Control.

Unit-II: The Data Link Layer2 :Elementary Data Link Protocols, Sliding Window Protocols. The Medium Access Control Sublayer: The Channel allocation Problem, Multiple Access protocols, Ethernet - Ethernet Cabling, Manchester Encoding, The Ethernet MAC Sublayer Protocol. The Binary Exponential Backoff Algorithm, Ethernet Performance, Switched Ethernet, Fast Ethernet. Wireless Lans- The 802.11 Protocol Stack, the 802.11 Physical Layer, the 802.11 MAC SubLayer Protocol, The 802.11 Frame Structure.

Unit-III: The Network Layer: Network Layer Design Issues, Routing Algorithms, Congestion Control Algorithms. Internetworking, The Network Layer in the Internet.

Unit-IV:The Transport Layer: The Transport Service, Elements of Transport Protocols, The Internet Transport Protocols: UDP, The Internet Transport Protocols: TCP.

Unit-V: The Application Layer: DNS - The Domain Name System, Electronic Mail. The World Wide Web, Multimedia.

Unit-VI: Network Security: Cryptography, Symmetric - Key Algorithms, Public - Key Algorithms, Digital Signatures.

Text Books

1. Computer Networks, Andrew S. Tanenbaum, 4e, Pearson Education.
2. Data Communications and Networking, Behrouz A. Forouzan, 4e , Tata McGraw Hill.