13-EC581 HIGH PERFORMANCE COMMUNICATION NETWORKS

SYLLABUS

Principles Of Networks networking principles, Network services, High performance networks, Network elements, network mechanisms, layered architecture Packet Switched Networks Principles, OSI & TCP/IP models, transmission media, routing algorithms, Congestion control algorithms, Internetworking, Ethernet(IEEE 802.3), Tokenring (IEEE 802.5), Tokenbus (IEEE802.4), FDDI., Network security(cryptography, symmetric key algorithms, private key algorithms, digital signatures, authetication protocols) The Internet And TCP/IP Networks & Circuit Switched Networks Overview of Internet protocols, Internet control protocols, Elements of transport Protocols, TCP & UDP, Performance of TCP/IP networks, SONET, DWDM, Solitons, Optical Networks fiber principles [elements of optical fiber communication, acceptanceangle, Numerical aperture, modes, fiber types], optical links(point to point links, attenuation, optical budgeting, dispersion), splices, connectors optical Lans, non Semiconductors, Optical amplifiers, Erbium doped Fiber amplifiers, couplers/splitters optical switches ATM networks Main features of ATM, Addressing, signaling, routing, ATM header structure

TEXT BOOKS

REFERENCES
2. John M Senior, PHI limited, optical fiber communication, third edition