SUBJECT NO-IE30006, SUBJECT NAME- DATA COMMUNICATION

LTP- 3-0-0,CRD- 3

SYLLABUS :-

Introduction. Data and signals. Transmission media and impairments. Data encoding techniques - Analog and digital encoding of digital data â ASK, PSK, FSK; NRZ, RZ, AMI, Manchester coding. Frequency and time-division Multiplexing techniques. Flow control. Error detection and error control techniques. Standards for interfacing to media. Spread spectrum, CDMA. Network architecture for data and computer communications. Circuit switching. Packet switching. Frame relay and ATM. Routing in packet-switched networks -fixed, random and adaptive approaches. Congestion and its control. Cellular network.Local area networks - Common topologies. Medium access control-round-robin, reservation and contention-based strategies. ALOHA protocol and its variants. CSMA and CSMA/CD protocols. Token-ring protocol. IEEE 802 standards for local area networks. High speed LANs - Fast and Gigabit ethernet, FDDI. Wireless LANs. Internetworking - Repeaters, bridges, routers and gateways. TCP/IP protocol suite. TCP/IP Sockets. Client-Server computing. Name Service. Application protocols over TCP/IP. Network Security.