Internet Technology
Code : EC 804A
Credit: 4

1. Introduction : The need for Internet, Internet protocols, TCP/IP protocol stack, Internet services, and standardization, Review of Network technologies.

2. Internetworking Architecture: Architectural model, Application level interconnection, Network level interconnection, Properties of the Internet, Internet Architecture, Interconnection through IP Gateways and routers, Internet and Intranet

3. Internet Address : Universal identifiers, Three primary classes of IP addresses, Classless IP address, Network and Broadcast addresses, Mapping Internet addresses to physical addresses (ARP), ARP protocol format, Transport Gateways and subnet addressing, Multicast addressing

4. Internet Protocol : Internet Architecture and Philosophy, The concept of unreliable delivery, Connectionless delivery system, The Internet Datagram, Routing direct and indirect delivery, Table driven IP routing, Protocol layering, Reliable stream transport, TCP performance, Bootstrap protocol (BOOTP).

5. Routing in Internet : The origin of Gateway routing tables, Original Internet Architecture and Cores, Core Gateways, Automatic route propagation, Vector distance routing, Gateway to Gateway Protocol (GGP), Autonomous system concept, Exterior Gateway Protocol (EGP), Interior Gateway Protocol (RIP, OSPF, HELLO), Border Gateway Protocol (BGP), Routing Information Protocol (RIP).

6. Wide Area Networking : Broadband at the Metropolitan area networking, Concepts of Packet Switching, High speed dedicated WAN services and switched WAN services, Frame relay, Virtual Private Network (VPN)

7. Internet Servers : DNS, DHCP Servers, FTP, TELNET, E-Mail , VOIP 4

8. Firewall & Networking : Concepts of Firewall, Configuration of firewall, Firewalls & SSL, SSL implementation, Bit implementation of SSL, Use of SSL.