

ONLINE INDUSTRIAL TRAINING ON DATA NETWORKING

Day	Topic	Reference Contents
1	Overview of Data Communication	<ul style="list-style-type: none"> - Introduction to data Networking - LAN, ISP and Tier-I Internetwork - OSI Layers and TCP/IP - Client / Server Communication - Data Services – Data, Multimedia, VoD, Gaming - VoIP
2	LAN and Switching (Demo with Cisco Packet Tracer)	<ul style="list-style-type: none"> - Concept of LAN and WAN - MAC ID and Ethernet Frame - L2 Device – Switch and its functions (Flooding, Learning, Frame Forwarding and Loop Avoidance) - Manageable and Un-manageable switches - Access and Trunk Ports - VLAN and 802.1Q tags - Inter VLAN routing
3	IP, IPv4 and IPv6	<ul style="list-style-type: none"> - IP and IP Header - IP Address - Dotted Decimal Notation - Network ID and Host Number - Classfull Addressing and Sub Net Mask - Subnetting and Super Netting - VLSM - CIDR - Introduction to IPv6
4	WAN and Routing (Demo with Cisco Packet Tracer)	<ul style="list-style-type: none"> - Routing / Packet Forwarding - Routing Table - Default route - Static and Dynamic routing - Routing Protocols – RIP and OSPF - Router Configuration - Concept of Layer 3 Switch
5	Multi Protocol label Switching (MPLS)	<ul style="list-style-type: none"> - Core Network of an ISP - Limitation of Packet Switching - MPLS – SHIM Header and LSR - Label Distribution Protocol (LDP) and Label Switching. - LFIB - Applications of MPLS