Microwave NETWORKS | TRAINING

Networking Fundamentals and Cyber Security

COURSE TOPICS

What is a network?
- Network models
- How data flows from one computer to another
- Network addressing

Ethernet LANs
- How Ethernet networks operate
- Early Ethernet network devices, including hubs and bridges
- Today's Ethernet network devices, switches and Virtual LANs (VLANs)
- Wireless LANs

Routing basics
- Layer 2 and 3 addressing
- Interconnecting different broadcast domains using routers
- Address resolution
- How data is sent from one broadcast domain or network to another

IP addressing
- Internet Protocol (IP)
- IP addressing
- Network masks
- Working with binary numbers
- Subnetting
- Routing data through a network using longest match routing
- IPv6 Addressing

WAN technologies
- Point-to-Point Protocol (PPP)
- Frame Relay and Asynchronous Transfer Mode(ATM)
- Multiprotocol Label Switching (MPLS)
- Carrier Ethernet

Overview:
The Networking Fundamentals and Cyber Security is an introductory course for anyone new to networking and looking to understand the basics. This course is conducted by certified Microwave Network instructor with extensive practical field experience.

Objective:
Understand basic networking concepts in Ethernet LANs, routing, IP addressing, WAN technologies and Transport Layer protocols

Prerequisites:
Entry level course, student should have basic understanding of digital electronics.

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Transport Layer protocols
- User Datagram Protocol (UDP)
- Transmission Control Protocol (TCP)

Cyber Security
- Security Control Standards
- Proteus CyberShield
- System Architecture
- Where use application
- Front panel layout

* Note – Course material subject to change.

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