Networking N+

If you go to work for a company that hosts its systems entirely on their own understanding networking is a key skill to being a good engineer. No matter how well you have been educated, if you enter a field with few readily

available positions, finding a job can be impossible. Networking is a booming business since nearly every industry now relies on computers and technology. You should study computer networking because it's a core piece of most systems being developed these days, whether it has anything to do with cloud computing or not.

Module 1

Introduction to Computer Networks: Introduction, Evolution of Computer Networks, Components of Computer Networks, Types of Computer Networks

Module 2 *Reference Models:* Introduction, OSI Reference Model, TCP/IP Reference Model

Module 3

Link Control and Protocol Concept: Introduction, Error Detection and Error Correction, Function of Data Link Control, Protocols and Standards, High Level Data Link Control

Module 4

Network Topologies and Networking Devices: Introduction, Network Topologies, Computer Networking Devices, Differences between networking devices

Module 5

Integrated Services Digital Network: Introduction, Network Architecture, ISDN Rate Interface, ISDN Reference Points, ISDN Protocol Architecture, Signalling, Application of ISDN

Module 6 *Protocols and Service Providers:* Introduction, Internet protocols, Importance of Internet Protocol, Internet Service Providers, Challenges for ISP

Module 7

Data Link Layer: Introduction, Data Link Layer Design, Types of Errors, Error Detection, Error Correction, Data Link Protocols

Module 8 *MAC Sub-layer:* Introduction, Channel Allocation, Multiple access protocols, Ethernet, Wireless LANs, Broadband wireless, Bluetooth

Module 9

Network and Transport Layer: Introduction, Network Layer Design, Algorithm, Internetworking, Transport Layer Services, Elements of Transport Protocols, Internet Transport Protocols

Module 10 *Network Layer in Internet:* Introduction, Internet Protocol, Internet Protocol Address, Internet Control Protocols, Mobile IP

Module 11

Internet Applications and Network Security: Introduction, World Wide Web, Multimedia, Cryptography, Networking security algorithms, Communication Security, Email and web security



