QUANTUM-AI
THE SCHOOL OF DATA AND AI

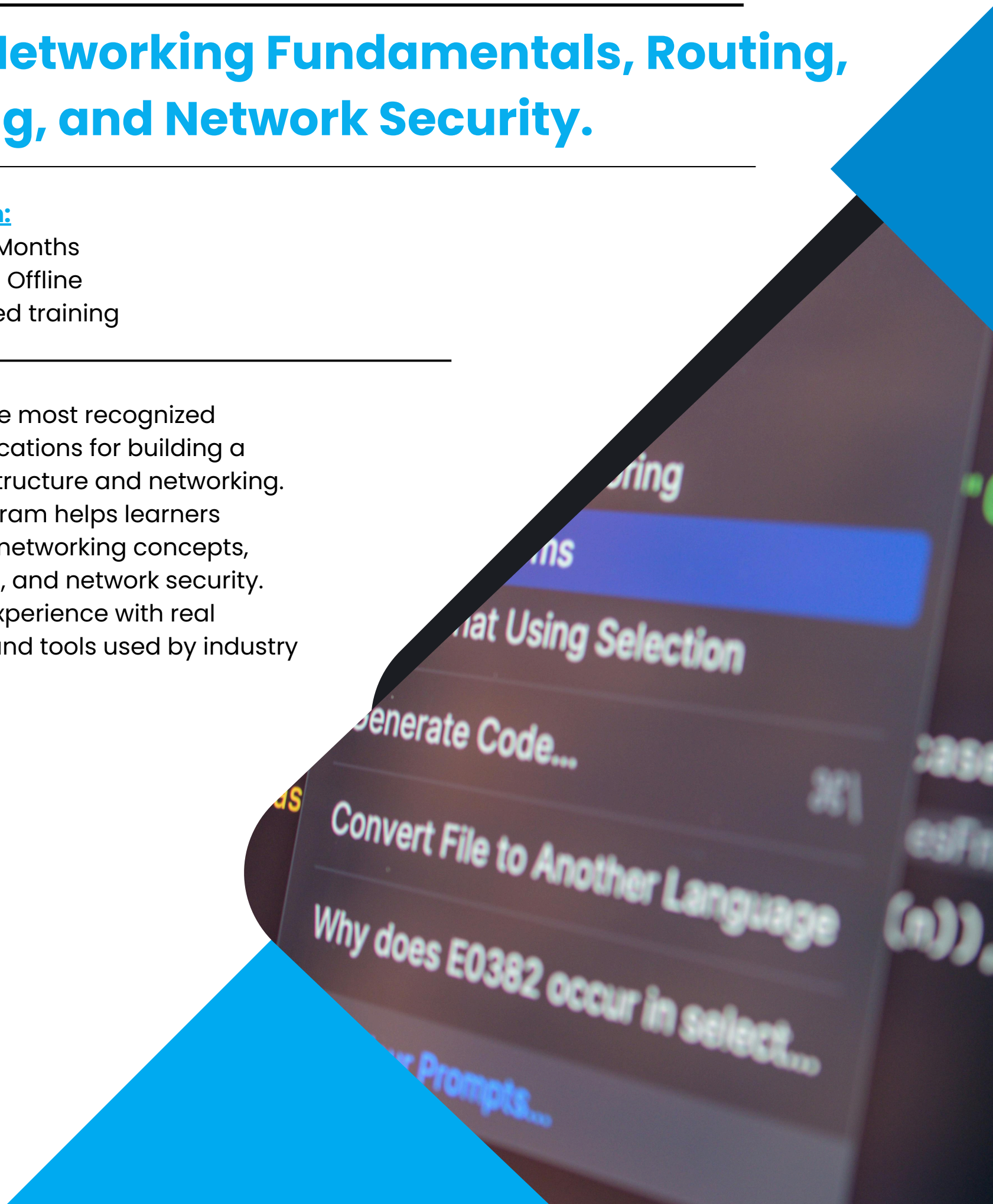
CCNA (Cisco Certified Network Associate) Training Program

Master Networking Fundamentals, Routing, Switching, and Network Security.

Course Duration:

- Duration: 2–3 Months
- Mode: Online / Offline
- Practical-based training

CCNA is one of the most recognized networking certifications for building a career in IT infrastructure and networking. This training program helps learners understand core networking concepts, routing, switching, and network security. Gain hands-on experience with real networking labs and tools used by industry professionals.



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WHY QUANTUM AI ?

We provide industry-focused CREO training with hands-on mechanical design projects.
Learn from experienced design professionals with real-world engineering expertise.
Our program includes portfolio development, career guidance, and interview preparation.

COURSE OVERVIEW

This CCNA training course provides a complete understanding of networking concepts and technologies used in modern IT infrastructure. The program covers networking fundamentals, IP addressing, routing, switching, and network security. Students will gain hands-on experience configuring routers, switches, and network services. Practical labs help learners develop troubleshooting and network management skills. By the end of the course, participants will be prepared for networking roles and the CCNA certification exam.



WHAT YOU WILL LEARN !

1. Networking Fundamentals

Introduction to Networking
- Basics of computer networking
- Types of networks: LAN, WAN, MAN, PAN
- OSI Model and TCP/IP Model
- Network topologies

Network Devices
- Router
- Switch
- Hub
- Firewall
- Wireless Access Point

Network Communication Basics
- Network cables and connectors
- Ethernet fundamentals
- TCP vs UDP protocols
- IPv4 addressing and subnetting
- IPv6 addressing basics

2. Network Access

Switching Fundamentals
- VLAN concepts
- VLAN configuration
- Access ports and trunk ports
- Inter-VLAN routing

Switch Configuration
- Switch port configuration
- EtherChannel concepts
- Spanning Tree Protocol (STP)
- Rapid PVST+

Wireless Networking
- PortFast and BPDU Guard
- Wireless network fundamentals

3. IP Connectivity

Routing Fundamentals
- Static routing configuration
- Default routing
- Dynamic routing protocols

OSPF Routing
- OSPF (Open Shortest Path First)
- OSPF neighbor relationships
- OSPF configuration and verification
- First Hop Redundancy Protocol (HSRP)

4. IP Services
- NAT (Network Address Translation)
- Dynamic NAT and PAT
- DHCP configuration
- DNS concepts
- NTP (Network Time Protocol)
- SNMP (Simple Network Management Protocol)
- Syslog configuration
- SSH remote access
- FTP and TFTP services

5. Network Security

Security Fundamentals
- Network threats and attacks
- Device security configuration
- Access Control Lists (ACL)

Security Implementation
- Standard ACL
- Extended ACL
- Port security
- DHCP snooping
- Dynamic ARP inspection
- VPN concepts

6. Automation and Programmability

- Introduction to network automation
- Software Defined Networking (SDN)
- REST APIs
- JSON and XML data formats
- Configuration management tools
- Cisco DNA Center basics

7. Practical Labs

- Cisco Packet Tracer labs
- Router configuration
- Switch configuration
- VLAN setup
- Routing configuration
- NAT and DHCP labs
- Network troubleshooting labs

Career Opportunities

After completing the CCNA course, students can apply for roles such as:

- Network Engineer
- Network Administrator
- Technical Support Engineer
- System Administrator
- Network Support Specialist

Start your journey toward becoming a skilled networking professional with our CCNA Training Program.
Enroll today to gain practical networking skills and build a successful career in IT and network engineering.

Get in Touch

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