Company Logo

Information and Technology Institute

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01937003532

Certified ISP Network Engineer (CINE)

About This Training

□□ Course Overview

The **Certified ISP Network Engineer (CINE) Program** is a comprehensive 3-month professional training designed to develop job-ready skills in **network fundamentals, MikroTik routing, and Fiber OLT (FTTH/GPON) system management**.

This course is structured for aspiring **ISP technicians, network engineers, and IT professionals** who want hands-on expertise in real-world ISP infrastructure.

□□ Course Summary

- □□**Duration:** 3 Months
- □□**Total Classes:** 24 Sessions
- □ **Class Duration:** 2 Hours per Class
- □□**Course Fee:** □ 3,300/-
- □□**Level:** Beginner to Professional (Job-Oriented)
- □□□□**Mode:** Practical + Lab-Based Training

Curriculum

#	Topic	Description

1	**Basic Networking Fundamentals (Foundation)**	• Introduction to computer networks • OSI & TCP/IP model (real-world mapping) • IPv4 addressing & subnetting (basic to intermediate) • Network devices overview: o Router o Switch o Access Point • LAN vs WAN vs MAN concepts • Basic cabling & Ethernet standards
2	**MikroTik RouterOS Essentials (MTCNA Core)**	• MikroTik RouterOS introduction • WinBox, WebFig & CLI access • First-time router configuration • Router identity, users & security setup • Backup & restore configuration • Software upgrade & firmware management
3	**Switching, Bridging & DHCP**	• Bridge configuration in MikroTik • Switch vs bridge concept • DHCP Server setup & management • DHCP pool design • IP assignment & lease management • ARP table understanding
4	**Routing Fundamentals**	• Routing concepts (gateway, metric, hop) • Static routing configuration • Default route setup • Basic routing troubleshooting • Introduction to dynamic routing (conceptual OSPF)
5	**Wireless Networking (ISP Level Basics)**	• Wireless frequency & channels (2.4GHz / 5GHz) • Access Point & Station modes • Wireless security (WPA2) • Signal strength & interference handling • Basic wireless ISP setup concept
6	**Firewall & NAT (Security Layer)**	• MikroTik firewall structure (input, forward, output) • NAT concepts: o Masquerade (src-nat) o Port forwarding (dst-nat) • Basic network security rules • Blocking unwanted traffic • Safe ISP configuration practices
7	**Bandwidth Management (QoS Basics)**	• Internet bandwidth concepts • Simple Queue configuration • PCQ (Per User bandwidth control) • Speed limiting techniques • Burst control basics

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8	**PPPoE & ISP User Management**	• PPPoE server setup • User authentication system • IP pool integration • ISP subscriber model • Basic ISP billing flow concept
9	**Fiber Optic & OLT Fundamentals**	• Fiber optic basics (SMF vs MMF) • FTTH / FTTx architecture • OLT, ONU/ONT introduction • GPON vs EPON overview • Splitter technology (1:2 to 1:64) • Optical power basics (dBm understanding)
10	**OLT Configuration & ISP Integration**	• OLT basic configuration • ONU registration process • VLAN setup for ISP services • Internet service provisioning • ONU status monitoring • Uplink integration with MikroTik router
11	**Real ISP Network Design (Practical Lab)**	• MikroTik + OLT integration model • PPPoE-based ISP network setup • VLAN-based subscriber management • Bandwidth control per user • Basic troubleshooting lab scenarios
12	**Troubleshooting & Maintenance**	• Network troubleshooting tools (Ping, Traceroute, Torch) • Common ISP issues: o No internet o Slow speed o ONU offline • Fiber fault detection basics • Log monitoring & debugging

Fees

Regular: Tk. 8,000.00

Current: **Tk. 3,300.00**

Company Information

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