



Instrumentation & Controls

Advanced OSP Fiber Optic Installation

Course Introduction

- Professional Fiber Optic Installation is an advanced course uses the actual field procedure and standards to install the fiber optic networks with a very professional way for both ISP (indoor) and OSP (outside plant) cabling systems
- The course covers site survey, install, test, maintain and troubleshooting of fiber optic networks such as ISP and OPS networks
- This course explains the different fiber optic installation techniques in different environments using latest technology
- The course has more hands-on training

Target Audience

- Telecom
- Network engineer
- Field staff
- IT
- Designer
- Premises and OSP technician
- Supervisor
- Contractor
- Consultant

Learning Objectives

- Knowledge of OSP fiber standards

- Knowledge of outdoor fiber optic cables types for different environments
- Knowledge of OSP networks hardware
- Knowledge of the cable installation latest technologies
- Using many technologies to terminate the fiber optic
- Installing low loss fusion splices
- Termination fiber optic in patch panel
- Splicing fiber optic inside joint closure
- Deep knowledge of Fiber Optic testing
- Learning Step by Step the Fiber Optic Networks Troubleshooting

Course Outline

• 01 Day One

1-Permits and OSP Fiber Optic

- Premises and OSP overview
- Premises VS. OSP
- Professional installer at indoor and outdoor environments

2- Fiber Optic Cables and Applications (Actual Field Samples)

- Riser and Plenum
- LSZH and Fire Retardant
- All dielectric Cables
- Under Ground Cables
- Direct Buried Cables
- Ariel Cables, ADSS and Figure Eight
- OPGW
- Sub-Marine Cables

3- Outside Cabling and Hardware

- Ingress Protection
- In-line and Dome Fiber Optic Closure
- Outdoor Termination Box
- Outdoor Cabinet
- Splitter Hub

• 02 Day Two

4- Conduit System

- Conduit Types
- Trench Specifications
- Manhole and Hand Hole
- Tools
- Conduit, Manhole and Hand Hole
- Cable Pulling Procedures
- IEC standards

5- Direct Burial

- Open Trench Specifications
- Cable Laying Procedures
- Tools
- Warning Tape

6- OSP Advanced Installation Techniques

- Blowing Technology / Cable Jetting
- Micro Trench
- HDD
- Mid Span Technology

• 03 Day Three

7- Micro-Duct & Micro Cabling

- Micro-ducts (1 way to 24 ways)

- Micro-ducts closures
- Micro-Cables
- Micro-Ducts Accessories
- Micro Cable blowing

8- Sub-Marine Installation

- Shallow and Deep water
- On-Shore & Off-Shore Installation
- Procedures
- Attached Cable

9- Site Survey

- Survey Equipments
- Choose the Route and Alternative Routes
- Soil Types

• 04 Day Four

10- Fiber Optic Termination (Hands-on training)

- Outdoor Fiber Optic Termination at Wall box
- Fiber Termination at Patch panel with Pigtailed
- Fiber Termination at DIN rail box

11- OSP Fiber Optic Splicing (Hands-on training)

- Weather Protection Equipments
- Hand Tools
- Closure Assembly
- Fiber Fusion Splicing inside the underground closure

12- OSP Fiber Optic Testing (Hands-on training)

- VFL and fault locating for fiber breaks
- Variable Attenuator
- OLTS
- Bi-directional OLTS
- Professional OTDR testing
- Intelligent Mapping
- Remote Testing Intelligent and real time patching system

• 05 Day Five

13- OSP Troubleshooting (Hands-on training)

- Fault Allocation
- Fault Definition
- Fault Repairing Steps

14- Review and Quiz

Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
May 11, 2025	May 15, 2025	5 days	4250.00 \$	KSA - Riyadh
Sept. 15, 2025	Sept. 19, 2025	5 days	4250.00 \$	UAE - Abu Dhabi
Nov. 3, 2025	Nov. 7, 2025	5 days	5950.00 \$	USA - Los Angeles

FROM	TO	DURATION	FEES	LOCATION
Feb. 24, 2025	Feb. 28, 2025	5 days	4250.00 \$	UAE - Dubai