FTTX Outside Plant Design & Planning

Location: **On-site or Virtual Instructor Led**

Class Size: **Minimum of 10   Maximum of 20**

Course Length: **5 days**

Course Overview:

This course provides a comprehensive understanding of FTTx outside plant design and planning, covering a wide range of topics from fundamental concepts to advanced design strategies. Through a combination of theoretical learning and practical exercises, participants will develop the skills necessary to design cost-effective, reliable, and efficient FTTx networks.

Course Objectives:

1. Understand the fundamentals of FTTx outside plant design.
2. Learn how to analyze design options economically and effectively.
3. Gain practical experience in FTTx architecture, network design, and deployment technology.
4. Develop operational skills for successful implementation and maintenance of FTTx networks.
5. Familiarize with industry standards and best practices in outside plant design for fiber optics.
6. Master the techniques for feeder route placement, hardware deployment, and boundary establishment.
7. Acquire knowledge of fiber optic cable design for feeder and distribution networks.
8. Apply learned concepts and skills through hands-on design exercises.
9. Utilize fiber design cost models for evaluating design alternatives.
10. Develop the ability to initiate and execute FTTx design projects in various settings.

By the end of this course, participants will be equipped with the fundamental knowledge and skills needed to design and plan FTTx outside plant networks effectively. They will have gained practical experience, familiarity with industry standards, and the ability to make informed design decisions in various contexts.

Course Description:

Explore the world of FTTx Outside Plant Design & Planning through our comprehensive course, available both On-Site and via Virtual Live Instructor-led sessions. Delve into the myriad design options for FTTx infrastructure, mastering the art of economical decision-making through effective analysis.

Under the guidance of our FTTx Subject Matter Expert (SME) Instructors, students will gain invaluable Real-World experience in FTTx architecture, network design, deployment technology, and operational skills.

Tailored for novices or experienced professionals in outside plant design, this extensive Instructor-Led course covers essential planning and engineering aspects. Participants will grasp the nuances of design options, learn to evaluate, and select the optimal solution based on customer dynamics, and become acquainted with industry standards and best practices.

Key topics include determining feeder route placement, establishing boundaries, hardware deployment strategies, and more. Beginning with fundamental concepts such as outside plant components and safety codes, the course progresses to advanced skills like feeder and distribution cable design for fiber optics.

The culmination of the course features fiber design exercises, where participants apply theoretical knowledge and practical techniques. Through hands-on design work, even those without prior experience can confidently tackle projects in diverse settings including subdivisions, apartments, and rural areas.

Additionally, students receive fiber design cost models for assessing alternatives and will have the opportunity to initiate a design project during class.

In today's competitive landscape, cost-effective and adaptable local loop facilities are pivotal for meeting evolving customer demands and ensuring organizational success. Join us to gain the expertise needed to excel in this critical aspect of telecommunications infrastructure.

Target Audience:

The course is intended for construction managers, network designers, network planners, supervisors, and project managers that will be involved in deploying and maintaining FTTx networks.

Prerequisites:

Basic fiber knowledge and basic OSP engineering are helpful but not necessary.

Course Syllabus:

Module 1: Introduction to FTTx Outside Plant Design

- Overview of FTTx architecture
- Understanding outside plant components
- Safety codes and regulations

Module 2: Design Options Analysis

- Economic analysis of design options
- Comparing design alternatives
- Customer dynamics and design decision-making

Module 3: Planning and Engineering

- Feeder route placement
- Hardware deployment strategies
- Boundary establishment

Module 4: Fiber Optic Basics

- Types of fiber optic cables
- Aerial, buried, and underground design basics
- Feeder and distribution cable design

Module 5: Advanced Concepts and Skills

- Local loop facilities and their importance
- Capital-intensive network components

- Design considerations for subdivisions, apartments, and rural areas

Module 6: Practical Design Exercises

- Hands-on design work utilizing learned methods
- Designing FTTx networks in real-world scenarios

Module 7: Cost Evaluation and Project Initiation

- Utilizing fiber design cost models
- Initiating a design project in class (time permitting)

Module 8: Industry Standards and Best Practices

- Familiarity with common practices in outside plant design
- Adherence to industry standards for FTTx networks

Module 9: Final Project Presentation

- Presenting completed design projects
- Feedback and discussion

Contact for fee structure and scheduling of classes.