



# Koinonia Academy



# ADVANCED WDM SYSTEMS AND TECHNOLOGIES FOR HIGH-SPEED NETWORKS

## Course Overview:

This course comprises the fundamental principles and practices for designing a basic optical network. It covers advanced single mode networks, focusing on CWDM and DWDM network design for high-speed networks (10 Gb/s, 40 Gb/s, 100 Gb/s, 400Gb/s). By the end of this training, the participants should be able to: - Describe the function module and network structure of WDM system. - Characterize the typical building blocks of a WDM network (amplifier, DCM, OADM, OXC, transponder). - Illustrate the main factors involved in WDM network planning, such as power budget, dispersion compensation, OSNR calculation and nonlinearity. - Outline the design process of WDM network.

## Course Objectives:

**Upon completion of the course, participants will be able to understand:**

- Understand the principles and workings of WDM technology types
- Perform measurements on WDM systems effectively
- Gain knowledge of the technologies driving new high-speed networks
- Familiarize themselves with new modules, interfaces, and modulations
- Comprehend international standards related to WDM systems and high-speed networks

## Target Audience:

**The WDM Systems and High-Speed Networks course is designed for**

- Engineers responsible for WDM systems and optical high-speed transmission networks.
- Professionals seeking to enhance their knowledge and skills in these areas.