



Koinonia Academy



ETHERNET TECHNOLOGY, IEEE 802.3 STANDARDS, AND ARCHITECTURES

Course Overview:

The IEEE 802.3 Ethernet Technology, Standards, and Architectures course is designed to provide engineers and users in the LAN and transport network field with a deep understanding of Ethernet technology. Participants will explore the inner workings of Ethernet, including different link variants, frame structures, Layer 2 and Layer 3 switching functions, and additional standards required for Ethernet to achieve functions such as redundancy and VLAN concepts. The course also covers Quality of Service (QoS) functions, policy management, queuing mechanisms, and network analysis techniques for optimized network performance.

Course Objectives:

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

- Understand the working principles of Ethernet technology and its different link variants
- Gain knowledge of the frame structure and Layer 2 and Layer 3 switching functions in Ethernet networks
- Familiarize oneself with additional standards required for advanced Ethernet features
- Learn about Quality of Service (QoS) functions, policy management, and queuing mechanisms
- Visualize the relationships involved in QoS and its impact on network planning
- Compare network analysis techniques and utilize them effectively for optimized network analysis

Target Audience: This course is designed for

- Engineers and users in the LAN and transport network field who desire a comprehensive understanding of Ethernet technology.
- Individuals with a technical interest in data communications who wish to become familiar with Ethernet architectures, standards, and their practical implementation.