

Satellite Communication Systems & IP in Modern Networks

Telecom Engineering
London (UK)
01 - 05 Sep 2025

UK Training

PARTNER



Satellite Communication Systems & IP in Modern Networks

Ref: 3283_130097 **Date:** 01 - 05 Sep 2025 **Location:** London (UK) **Fees:** 4400 **Euro**

Course Description

This comprehensive 5-day course explores advanced satellite communication systems and their integration with modern IP networks. Participants will gain in-depth knowledge of satellite technology, network design, and IP protocols in satellite communications. The course covers key concepts, practical applications, and emerging trends in the field.

Learning Objectives

- Understand the fundamentals of satellite communication systems and their components
- Design and analyze satellite networks for optimal performance
- Implement IP networking protocols in satellite communication systems
- Evaluate and troubleshoot satellite network issues
- Apply best practices for integrating satellite technology with modern IP-based networks

Course Modules

Day 1: Introduction to Satellite Communication Systems

- Overview of satellite communication principles
- Satellite orbits and coverage areas
- Frequency bands and signal propagation
- Satellite network architectures

Day 2: Satellite Network Design and Analysis

- Link budget calculations
- Modulation and coding techniques
- Multiple access methods FDMA, TDMA, CDMA
- Network performance optimization

Day 3: IP Networking in Satellite Communications

- IP protocol suite overview
- Routing and addressing in satellite networks
- Quality of Service QoS considerations
- TCP performance over satellite links

Day 4: Advanced Satellite Technologies

The logo for UK Training Partner, featuring the text 'UK Training' in a small font above the word 'PARTNER' in a large, bold, black font. The background of the logo shows a chessboard with several chess pieces, including a king, a queen, and a pawn, arranged in a strategic formation.

- High-throughput satellites HTS
- Software-defined satellites
- Intersatellite links and constellations
- Emerging LEO satellite networks

Day 5: Integration and Applications

- VSAT systems and implementations
- Satellite-terrestrial network integration
- Cybersecurity in satellite communications
- Case studies and practical applications

Practical Wins for Participants

- Ability to design and optimize satellite communication networks
- Proficiency in implementing IP protocols in satellite systems
- Skills to troubleshoot and resolve satellite network issues
- Knowledge to integrate satellite technology with modern IP-based networks

A graphic of a chessboard with several chess pieces (a king, a queen, and a pawn) in gold and silver. The board is checkered and has a subtle grid pattern. The text 'UK Training' is in a small, black sans-serif font, and 'PARTNER' is in a large, bold, black sans-serif font.

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www.blackbird-training.com



training@blackbird-training.com



+44 7480 775526 / +44 7401 177335