

SatMaster Pro: Advanced Satellite Link Budget Analysis

Telecom Engineering
London (UK)
29 Sep - 03 Oct 2025

UK Training

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The background of the slide features a grey and white checkered chessboard. Several chess pieces are visible: a silver pawn on the left, a silver pawn in the center, and a large gold king piece on the right. In the far right, another silver piece is partially visible. Overlaid on the chessboard are several concentric, light grey circles that radiate from the center, creating a ripple effect.

SatMaster Pro: Advanced Satellite Link Budget Analysis

Ref: 321453_140117 **Date:** 29 Sep - 03 Oct 2025 **Location:** London (UK) **Fees:** 4400 **Euro**

Course Description

This intensive 5-day course provides comprehensive training on satellite link budget analysis using SatMaster Pro software. Participants will gain in-depth knowledge of satellite communication systems, link budget calculations, and optimization techniques. The course combines theoretical concepts with hands-on practical exercises to ensure a thorough understanding of satellite engineering principles.

Learning Objectives

- Master the fundamentals of satellite link budget analysis
- Develop proficiency in using SatMaster Pro software for link budget calculations
- Understand advanced concepts in satellite communication system design
- Learn optimization techniques for various satellite network configurations
- Gain practical skills in troubleshooting and improving satellite link performance

Course Modules

Day 1: Introduction to Satellite Link Budgets

- Satellite communication basics and link budget overview
- SatMaster Pro software introduction and interface familiarization
- Key parameters in link budget calculations
- Hands-on exercises: Basic link budget setup

Day 2: Detailed Link Budget Analysis

- Advanced link budget components and calculations
- Propagation effects and atmospheric models
- Modulation and coding techniques
- Practical session: Complex link budget scenarios

Day 3: Satellite Network Design

- VSAT network architecture and design principles
- Transponder loading and optimization
- Interference analysis and mitigation strategies
- Workshop: Designing a multi-beam satellite network

The logo for UK Training Partner, featuring the text 'UK Training' in a smaller 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.

Day 4: Advanced Topics in Satellite Communications

- Non-GEO satellite systems and link budget considerations
- HTS and multi-spot beam architectures
- Adaptive coding and modulation techniques
- Case study: Optimizing a global satellite network

Day 5: Optimization and Troubleshooting

- Link budget optimization techniques
- Performance analysis and system trade-offs
- Troubleshooting common satellite link issues
- Final project: End-to-end satellite network design and optimization

Practical Wins for Participants

- Ability to independently perform complex link budget analyses using SatMaster Pro
- Skills to optimize satellite network designs for various applications and environments
- Expertise in identifying and resolving satellite communication system issues
- Confidence in making informed decisions for satellite communication projects

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