

Microwave Transmission Link Design & Network Planning

Telecom Engineering
Amsterdam (Netherlands)
25 - 29 Aug 2025

UK Traininig

PARTNER



Microwave Transmission Link Design & Network Planning

Ref: 321422_139699 **Date:** 25 - 29 Aug 2025 **Location:** Amsterdam (Netherlands) **Fees:** 4200 Euro

Course Description

This intensive 5-day course provides a comprehensive understanding of microwave transmission link design and network planning. Participants will learn essential principles of microwave propagation, link budget analysis, frequency planning, and network optimization techniques. The course combines theoretical knowledge with practical exercises to ensure a well-rounded learning experience.

Learning Objectives

- Understand microwave propagation principles and their impact on link design
- Master link budget calculations and performance analysis techniques
- Develop skills in frequency planning and interference mitigation
- Learn to optimize microwave networks for capacity and reliability
- Gain practical experience using industry-standard tools and software

Course Modules

Day 1: Fundamentals of Microwave Transmission

- Introduction to microwave communications
- Microwave propagation principles
- Antenna theory and selection
- Free space path loss and atmospheric effects

Day 2: Link Budget Analysis and Performance

- Link budget components and calculations
- Fade margin and availability prediction
- Modulation techniques and adaptive modulation
- Error performance and quality of service

Day 3: Frequency Planning and Management

- Frequency allocation and licensing
- Channel arrangements and polarization
- Interference analysis and mitigation
- Frequency reuse strategies

Day 4: Network Planning and Optimization

A graphic of a chessboard with several chess pieces, including a king and pawns, arranged on it. The text 'UK Training PARTNER' is overlaid on the image.

UK Training
PARTNER

- Network topology design
- Capacity planning and traffic engineering
- Reliability and redundancy considerations
- Network management systems

Day 5: Advanced Topics and Practical Applications

- High-capacity and long-haul link design
- Microwave backhaul for mobile networks
- Software tools for link design and network planning
- Case studies and real-world scenarios

Practical Wins for Participants

- Ability to design and optimize microwave links for various applications
- Proficiency in using industry-standard tools for link budget analysis
- Skills to develop efficient frequency plans and mitigate interference
- Capability to plan and optimize large-scale microwave networks

A graphic of a chessboard with several chess pieces. A large gold king piece is in the foreground, with a silver pawn and a silver knight behind it. In the background, there are concentric circles representing a signal or network. The text 'UK Training' is above the word 'PARTNER' in a bold, black, sans-serif font.

UK Training
PARTNER

Blackbird training cities



Amman (Jordan)



Amsterdam (Netherlands)

Accra (Ghana)

Annecy (France)

Baku (Azerbaijan)

Bali (Indonesia)

Bangkok (Thailand)

Bangkok (Thailand)

Barcelona (Spain)

Batumi (Georgia)

Beijing (China)

Beirut (Lebanon)

Berlin (Germany)

Birmingham (UK)

Bordeaux (France)

Boston, Massachusetts (USA)

Brussels (Belgium)

Cairo (Egypt)

Cape Town (South Africa)

Casablanca (Morocco)

Cascais (Portugal)

Copenhagen (Denmark)

Doha (Qatar)

Dubai (UAE)

Düsseldorf (Germany)

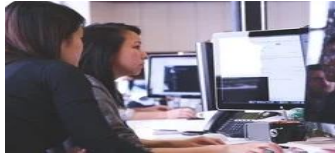
UK Training
PARTNER



Blackbird Training Category



Human Resource



Audit & Quality Assurance



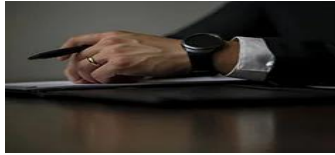
Finance, Accounting, Budgeting



Marketing, Sales, Customer Service



Secretary & Admin



Law and Contract Management



Project Management



IT & IT Engineering



Supply Chain & Logistics



Management & Leadership



Professional Skills



Oil & Gas Engineering



Health & Safety



Telecom Engineering



Hospital Management



Customs & Safety



Aviation



C-Suite Training



Agile and Refinement



Blackbird training Clients



MANNAI Trading
Company WLL,
Qatar



Alumina Corporation
Guinea



Booking.com
Netherlands



Oxfam GB International
Organization,
Yemen



Capital Markets
Authority,
Kuwait



Waltersmith Petroman Oil Limited
Nigeria



Qatar National Bank
(QNB),
Qatar



Qatar Foundation,
Qatar



AFRICAN UNION ADVISORY
BOARD ON CORRUPTION,
Tanzania



KFAS
Kuwait



Reserve Bank of
Malawi,
Malawi



Central Bank of Nigeria
Nigeria



Ministry of Interior
Kingdom of Saudi Arabia
KSA



Mabruk Oil Company
Libya



Saudi Electricity
Company,
KSA



BADAN PENGELOLA
KEUANGAN Haji,
Indonesia



NATO
Italy



ENI CORPORATE
UNIVERSITY,
Italy



Gulf Bank
Kuwait



General Organization for
Social Insurance
KSA



Defence Space Administration
Nigeria



National Industries
Group (Holding),
Kuwait



Hamad Medical
Corporation,
Qatar



USAID
Pakistan



STC Solutions,
KSA



North Oil company,



EKO Electricity



Oman Broadband



UNITED NATIONS
UN.



Authority for

UK Training
PARTNER



LONDON TRAINING PROVIDER



www.blackbird-training.com



training@blackbird-training.com



+44 7480 775526 / +44 7401 177335