BLACKBiRD
FOR TRAINING

Satellite Communication Systems & IP in Modern Networks

Telecom Engineering
Barcelona (Spain)
02 - 06 Mar 2026

UK Traininig
PARTNER

Satellite Communication Systems & IP in Modern Networks

Ref: 3283_125382 **Date:** 02 - 06 Mar 2026 **Location:** Barcelona (Spain) **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

Head Office: +44 7480 775 526 | 0 7401 177 335
Email: training@blackbird-training.com
Website: www.blackbird-training.com

- 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

Head Office: +44 7480 775 526 | 0 7401 177 335
Email: training@blackbird-training.com
Website: www.blackbird-training.com

Blackbird training cities

Accra (Ghana)	Amman (Jordan)	Amsterdam (Netherlands)	Annecy (France)
Baku (Azerbaijan)	Bali (Indonesia)	Bangkok (Thailand)	Bangkok (Thailand)
Barcelona (Spain)	Batumi (Georgia)	Beijing (China)	Beirut (Lebanon)
Berlin (Germany)	Birmingham (UK)	Bordeax (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 Traininig
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	

UK Traininig
PARTNER

Blackbird training Clients

MANNAI CORPORATION MANNAI Trading Company WLL, **Qatar**	**GAC** UNE FILIALE D' EGA Alumina Corporation **Guinea**	**B.** Booking.com Booking.com **Netherlands**	**OXFAM** Oxfam GB International Organization, **Yemen**	Capital Markets Authority Capital Markets Authority, **Kuwait**
WS Waltersmith Petroman Oil Limited **Nigeria**	**QNB** Qatar National Bank (QNB), **Qatar**	مؤسسة قطر Qatar Foundation Qatar Foundation, **Qatar**	AFRICAN UNION ADVISORY BOARD ON CORRUPTION, **Tanzania**	**KFAS** مؤسسة الكويت للتقدم العلمي Kuwait Foundation for the Advancement of Sciences KFAS **Kuwait**
Reserve Bank of Malawi, **Malawi**	Central Bank of Nigeria **Nigeria**	Ministry of Interior Kingdom of Saudi Arabia Ministry of Interior, **KSA**	**Mabruk** Oil Operations Mabruk Oil Company **Libya**	الشركة السعودية للكهرباء Saudi Electricity Company Saudi Electricity Company, **KSA**
BPKH Badan Pengelola Keuangan Haji BADAN PENGELOLA KEUANGAN Haji, **Indonesia**	NATO **Italy**	**eni** ENI CORPORATE UNIVERSITY, **Italy**	بنك الخليج GULF BANK Gulf Bank **Kuwait**	المؤسسة العامة للتأمينات الاجتماعية General Organization for Social Insurance General Organization for Social Insurance **KSA**
Defence Space Administraion **Nigeria**	مجموعة الصناعات الوطنية (القابضة) National Industries Group (Holding), **Kuwait**	مؤسسة حمد الطبية Hamad Medical Corporation Hamad Medical Corporation, **Qatar**	**USAID** USAID **Pakistan**	**STC** الاتصالات السعودية STC Solutions, **KSA**
N North Oil Company North Oil company,	**EKEDC** EKO ELECTRICITY DISTRIBUTION COMPANY EKO Electricity	**oman** BROADBAND العمانية للنطاق العريض Oman Broadband	**UNITED NATIONS** UN.	هيئة تنظيم الكهرباء - عمان AUTHORITY FOR ELECTRICITY REGULATION, OMAN Authority for

UK Trainig
PARTNER

BLACKBiRD

FOR TRAINING