

Wireless Communication Systems

Kuala Lumpur (Malaysia)

29 September - 10 October 2025

UK Traininig

PARTNER



Wireless Communication Systems

Code: GC28 From: 29 September - 10 October 2025 City: Kuala Lumpur (Malaysia) Fees: 8300 Pound

Introduction

This 10-day intensive training course on Wireless Communication Systems is tailored for professionals and enthusiasts eager to understand the principles, technologies, and applications of wireless communication. Covering both the basics of wireless communication and advanced techniques, this program delves into professional wireless communications, emerging trends, and innovative solutions in the field. Through theoretical knowledge and practical applications, participants will acquire the skills needed to master wireless communication systems and leverage their potential for modern-day challenges.

Course Objectives

By the end of this course, participants will:

- Understand the Fundamentals: Learn the basics of wireless communication, including core principles and key components.
- Explore Wireless Systems: Gain knowledge of various types of wireless communication systems, such as cellular networks, WLAN, Bluetooth, and satellite communication.
- Analyze and Optimize: Evaluate the performance of communication systems wireless and explore optimization techniques.
- Master Advanced Techniques: Dive into advanced wireless communication technologies, including modulation, coding, and MIMO techniques.
- Stay Updated: Understand the latest wireless communication solutions, trends, and technologies, such as IoT, 5G, and millimeter-wave communication.
- Apply Knowledge Practically: Equip themselves with hands-on skills for implementing and troubleshooting wireless communication systems.

Course Outlines

Day 1: Fundamentals of Wireless Communication

- Overview of wireless communication systems and their importance.
- Understanding radio wave propagation and its significance.
- Characteristics of antennas in wireless communication devices.
- Signal transmission and reception principles.
- Introduction to wireless communication protocols and standards.

Day 2: Cellular Networks

- Evolution of cellular networks 1G to 5G.
- Structure and architecture of cellular systems.



- Frequency reuse and handoff strategies.
- Introduction to multiple access techniques: FDMA, TDMA, CDMA, OFDMA.
- Overview of LTE and 5G wireless communication technology.

Day 3: Wireless Local Area Networks WLAN

- Introduction to WLAN and types of wireless communication systems.
- IEEE 802.11 standards Wi-Fi and their significance.
- WLAN architecture, components, and security protocols.
- Techniques for optimizing WLAN performance.

Day 4: Bluetooth and Personal Area Networks PAN

- Overview of Bluetooth technology and its applications.
- Understanding the Bluetooth protocol stack.
- Security, pairing, and communication in Bluetooth.
- Overview of other PAN technologies like Zigbee and UWB.

Day 5: Satellite Communication Systems

- Basics of satellite communication and advantages.
- Types of satellites: GEO, MEO, and LEO.
- Satellite communication links and their design.
- Applications of satellite communication in professional wireless communications.

Day 6: Modulation and Coding Techniques

- Introduction to modulation in wireless communication.
- Digital modulation schemes: ASK, FSK, PSK, QAM.
- Error detection and correction methods.
- Channel coding for reliable transmission.
- Trade-offs between modulation and coding.

Day 7: Multiple Antenna Techniques

- Introduction to MIMO Multiple Input Multiple Output systems.
- Diversity and spatial multiplexing for enhanced system capacity.
- Beamforming techniques and their applications.
- Role of MIMO in advanced wireless communication solutions.

Day 8: Mobile Ad Hoc Networks MANETs

- Fundamentals of MANETs and their features.
- Routing protocols for dynamic environments.
- Security challenges in MANETs.
- Evaluating performance metrics for MANETs.

Day 9: Emerging Wireless Technologies



- Overview of IoT and its implications in wireless communication technology.
- Advances in 5G technologies and the road to 6G.
- Cognitive radio networks and their applications.
- Millimeter-wave communication and its potential in future wireless systems.
- Wireless sensor networks and their role in modern communication system wireless.

Day 10: Future Trends and Research Directions

- Exploring innovations in wireless communication solutions.
- Challenges and opportunities in professional wireless communications.
- Future research directions in wireless technology.
- Interactive Q&A session and final review.

Why Attend this Course? Wins & Losses!

- Master Wireless Technology: Gain in-depth knowledge of advanced wireless communication and its applications.
- Professional Growth: Enhance career prospects with insights into emerging trends and innovative wireless communication solutions.
- Hands-On Expertise: Learn through practical exercises and real-world case studies, ensuring skill acquisition.
- Stay Ahead: Be equipped with cutting-edge knowledge of 5G, IoT, and cognitive radio technologies.

Conclusion

This course is an essential opportunity for anyone looking to excel in wireless communication technology. From understanding the basics of wireless communication to mastering advanced wireless communication techniques, participants will leave with a well-rounded expertise. Whether you are an engineer, a technician, or a professional seeking to enhance your skills, this training will empower you to innovate and succeed in the field of wireless communication.

Enroll today and become a leader in shaping the future of wireless communication systems!



Blackbird Training Cities

Europe



Malaga (Spain)



Sarajevo (Bosnia and Herzegovina)



Oporto (Portugal)



Glasgow (Scotland)



Edinburgh (UK)



Oslo (Norway)



Annecy (France)



Bordeaux (France)



Copenhagen (Denmark)



Birmingham (UK)



Lyon (France)



Moscow (Russia)



Stockholm (Sweden)



Podgorica (Montenegro)



Batumi (Georgia)



Salzburg (Austria)



Florence (Italy)



London (UK)



Istanbul (Turkey)



Amsterdam



Düsseldorf (Germany)



Paris (France)



Athens (Greece)



Barcelona (Spain)



Munich (Germany)



Geneva (Switzerland)



Prague (Czech)



Vienna (Austria)



Rome (Italy)



Brussels (Belgium)



Madrid (Spain)



Berlin (Germany)



Lisbon (Portugal)



Zurich (Switzerland)



Manchester (UK)



Milan (Italy)



Blackbird Training Cities

USA & Canada



Los Angeles (USA)



Orlando, Florida (USA)



Online



Phoenix, Arizona (USA)



Houston, Texas (USA)



Boston, MA (USA)



Washington (USA)



Miami, Florida (USA)



New York City (USA)



Seattle, Washington (USA)



Washington DC (USA)



In House



Jersey, New Jersey (USA)



Toronto (Canada)

ASIA



Baku (Azerbaijan)
(Thailand)



Maldives (Maldives)



Doha (Qatar)



Manila (Philippines)



Bali (Indonesia)



Bangkok



Beijing (China)



Singapore (Singapore)



Sydney



Tokyo (Japan)



Jeddah (KSA)



Riyadh (KSA)



Melbourne (Australia)
(Kuwait)



Phuket (Thailand)



Shanghai (China)



Dubai (UAE)



Kuala Lumpur (Malaysia)



Kuwait City



Seoul (South Korea)



Pulau Ujong (Singapore)



Irbid (Jordan)



Jakarta (Indonesia)



Amman (Jordan)



Beirut



Blackbird Training Cities

AFRICA



Kigali (Rwanda)



Cape Town (South Africa)



Accra (Ghana)



Lagos (Nigeria)



Marrakesh (Morocco)



Nairobi (Kenya)



Zanzibar (Tanzania)



Tangier (Morocco)



Cairo (Egypt)



Sharm El-Sheikh (Egypt)



Casablanca (Morocco)



Tunis (Tunisia)



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



Blackbird Training Categories

Management & Admin

Entertainment & Leisure
Professional Skills
Finance, Accounting, Budgeting
Media & Public Relations
Project Management
Human Resources
Audit & Quality Assurance
Marketing, Sales, Customer Service
Secretary & Admin
Supply Chain & Logistics
Management & Leadership
Agile and Elevation

Technical Courses

Artificial Intelligence (AI)
Hospital Management
Public Sector
Special Workshops
Oil & Gas Engineering
Telecom Engineering
IT & IT Engineering
Health & Safety
Law and Contract Management
Customs & Safety
Aviation
C-Suite Training



 International House 185 Tower Bridge
Road London SE1 2UF United Kingdom

 +44 7401 1773 35
+44 7480 775526

 Sales@blackbird-training.com

 www.blackbird-training.com

