

## LTE 4G and 5G Mobile Networks Course

*Cairo (Egypt)*

*16 - 20 August 2026*

UK Traininig

# PARTNER



## LTE 4G and 5G Mobile Networks Course

Code: IT28 From: 16 - 20 August 2026 City: Cairo (Egypt) Fees: 4000 Pound

### Introduction

The "LTE 4G and 5G Mobile Networks" course provides engineers, network planners, and technical managers in the telecommunications field with an in-depth understanding of LTE and emerging 5G technologies. The curriculum explores core network architecture, radio access technologies, spectrum management, and advanced mobile network features, preparing participants to effectively deploy, optimize, and troubleshoot modern wireless systems.

### Course Objectives

By the end of this course, participants will be able to:

- Understand the architecture and key components of LTE and 5G networks.
- Analyze radio access technologies and spectrum allocation strategies.
- Plan and optimize the performance of LTE and 5G networks.
- Apply advanced technologies such as Massive MIMO, network slicing, and edge computing.
- Troubleshoot network issues to maintain service quality and ensure security.

### Course Outlines

#### Day 1: Basics of LTE 4G and Its Architecture

- Overview of the LTE core network Evolved Packet Core - EPC and radio access network
- LTE radio technologies: OFDMA, SC-FDMA, MIMO
- LTE frequency bands and deployment use cases
- Case Study: LTE deployment in a developing market

#### Day 2: LTE Network Planning and Optimization

- Coverage planning and capacity estimation
- Interference mitigation and handover strategies
- LTE performance metrics and monitoring techniques
- Workshop: Optimization of LTE network parameters

#### Day 3: Introduction to 5G Architecture and Technologies

- Overview of the 5G core network and service-based architecture
- 5G New Radio NR interface and supported spectrum bands
- Enabling technologies: Massive MIMO, beamforming, and mmWave
- Case Study: 5G deployment for smart city integration

#### Day 4: Advanced 5G Features and Use Cases



- Network slicing and QoS configuration
- Edge computing and ultra-low latency use cases
- Security challenges and protection strategies in 5G
- Simulation: Designing a network slice for IoT deployment

### Day 5: Troubleshooting, Future Trends, and Integration

- Common troubleshooting methods for LTE and 5G networks
- Migration strategies from LTE to 5G
- Emerging trends and the outlook for 6G
- Action Plan: Integrating 4G and 5G into existing infrastructure

### Why Attend This Course: Wins & Losses!

- Gain a thorough understanding of LTE and 5G network technologies
- Strengthen skills in planning, deployment, and performance optimization
- Improve troubleshooting capabilities and ensure high service quality
- Prepare for the next generation of mobile communications
- Advance your career in the evolving telecom industry

### Conclusion

This course is specifically developed for professionals in the telecom sector who aim to deepen their technical expertise in LTE and 5G networks. With a balanced combination of theoretical foundations and practical case studies, participants will be well-equipped to address current and future mobile network challenges.

Register now and become a certified LTE and 5G expert—ready to lead the future of mobile communications.



# 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)



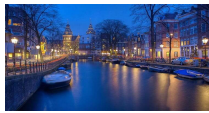
Florence (Italy)



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)



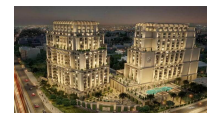
Pulau Ujong (Singapore)



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



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](mailto:Sales@blackbird-training.com)

 [www.blackbird-training.com](http://www.blackbird-training.com)

