

# 5G and ORAN: Mastering Next-Gen Mobile Networks

2026 8 - 4  
Cairo (Egypt)

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## 5G and ORAN: Mastering Next-Gen Mobile Networks

**2022-11-12 to 2022-11-16** **Location:** Cairo (Egypt) **Fees:** 4900 GBP

### Why This Course

The rollout of 5G and Open Radio Access Networks ORAN is transforming mobile communications, enabling higher performance, flexibility, and innovation. This intensive 5-day program equips participants with the knowledge and practical skills to design, deploy, and optimize 5G ORAN networks. Through a combination of theoretical learning, hands-on sessions, and real-world case studies, attendees will gain the expertise needed to drive next-generation network deployments and innovations.

### What You'll Learn and Practice

By attending this course, you will be able to:

- Understand the architecture and key components of 5G networks.
- Master ORAN principles, interfaces, and reference architecture.
- Deploy, configure, and optimize 5G ORAN networks in real-world scenarios.
- Develop and implement xApps and rApps for network performance enhancement.
- Apply AI/ML techniques in ORAN for intelligent network management.
- Explore emerging trends, testing strategies, and future radio technologies.

### The Program Flow

#### Day 1: Introduction to 5G and ORAN

- 5G architecture overview
- Evolution from traditional RAN to ORAN
- ORAN Alliance and ecosystem
- Key drivers and benefits of ORAN

#### Day 2: ORAN Architecture and Interfaces

- ORAN reference architecture
- Open Fronthaul specifications
- RAN Intelligent Controller RIC
- O-CU, O-DU, and O-RU components

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A graphic of a chessboard with several chess pieces (king, queen, rook, knight, and pawns) on it. The board is white and black, and the pieces are gold and silver. The text 'UK Training PARTNER' is overlaid on the right side of the board.

### **Day 3: ORAN Deployment Strategies**

- Virtualization and cloud-native principles
- Network slicing in ORAN
- Integration with 5G Core networks
- Security considerations in ORAN

### **Day 4: ORAN Implementation and Optimization**

- xApps and rApps development
- AI/ML applications in ORAN for network optimization
- Performance management and monitoring
- Troubleshooting ORAN networks

### **Day 5: Advanced Topics and Future Trends**

- Open RAN testing and certification
- Emerging use cases for ORAN
- Beyond 5G: 6G and future radio technologies
- Hands-on project: ORAN network design

## **Individual Impact**

Participants will leave this program with:

- Practical skills to design, deploy, and optimize 5G ORAN networks.
- Hands-on experience working with ORAN components and interfaces.
- Ability to develop xApps and rApps to enhance network performance.
- Understanding of AI/ML applications for intelligent ORAN management.

## **Organizational Impact**

Organizations will benefit from:

- Accelerated deployment of flexible, high-performance 5G ORAN networks.
- Enhanced network optimization through AI/ML-enabled solutions.
- Skilled personnel capable of designing and managing advanced mobile network architectures.
- Insights into emerging trends and future-proofing network infrastructure.

A decorative graphic in the bottom right corner featuring a chessboard with several chess pieces (a king, a queen, and a pawn) and concentric circles emanating from behind them.

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## Training Methodology

- Interactive lectures combined with hands-on labs and simulations
- Real-world case studies and project-based learning
- Group discussions and collaborative problem-solving
- Practical application of ORAN principles, interfaces, and network optimization techniques

## Beyond the Course

By the end of this 5-day program, participants will be ready to:

- Confidently deploy and manage 5G ORAN networks.
- Develop and implement network optimization strategies using xApps, rApps, and AI/ML.
- Understand emerging technologies and future developments in mobile radio networks.
- Contribute to organizational 5G strategies with practical, hands-on expertise.

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A graphic illustration of a chessboard with a checkered pattern. Three chess pieces are visible: a gold king, a silver pawn, and a gold pawn. The pieces are positioned on the board, with the gold king being the most prominent. The background features a series of concentric, semi-transparent circles, suggesting a signal or network.