

5G and ORAN: Mastering Next-Gen Mobile Networks

10 – 14 October 2027
Cairo (Egypt)

UK Training

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Ref: 321712_144632 **Date:** 10 – 14 October 2027 **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

A graphic featuring a chessboard with several chess pieces (a king, a queen, and a rook) and the text 'UK Training PARTNER' overlaid. The text 'UK Training' is in a smaller font above the word 'PARTNER' which is in a large, bold, black font. The background shows a chessboard with pieces and concentric circles emanating from behind the king piece.

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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 at the bottom right of the page features a chessboard with several chess pieces (a king, a queen, and a pawn) and concentric circles emanating from behind them, suggesting a signal or network. The text 'UK Training' is positioned above the word 'PARTNER' in a large, bold, black font.

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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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