

O-RAN Architecture and Implementation for 5G Networks

IT & IT Engineering
Maldives (Maldives)
21 - 25 Jul 2025

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The background of the entire page features a grayscale checkered chessboard. In the foreground, several chess pieces are visible: a silver pawn on the left, a silver pawn in the center, and a large gold king piece on the right. Faint, concentric circles emanate from behind the king piece, creating a ripple effect across the background.

O-RAN Architecture and Implementation for 5G Networks

Ref: 321762_146086 **Date:** 21 - 25 Jul 2025 **Location:** Maldives (Maldives) **Fees:** 4700 Euro

Course Description

This comprehensive 5-day course provides in-depth knowledge of Open Radio Access Network O-RAN architecture, components, and implementation strategies for 5G networks. Participants will explore O-RAN concepts, interfaces, and deployment scenarios, gaining practical skills in designing and implementing O-RAN solutions. The course covers key topics such as RAN Intelligent Controllers, Open Fronthaul, and integration with 5G core networks.

Learning Objectives

- Understand O-RAN architecture, components, and interfaces
- Analyze O-RAN deployment scenarios and use cases
- Gain practical skills in implementing O-RAN solutions
- Explore RAN Intelligent Controllers and their role in network optimization
- Learn about Open Fronthaul specifications and implementation
- Understand the integration of O-RAN with 5G core networks

Course Modules

Day 1: Introduction to O-RAN

- Overview of RAN evolution and O-RAN concepts
- O-RAN Alliance and ecosystem
- Key drivers and benefits of O-RAN
- O-RAN architecture overview

Day 2: O-RAN Components and Interfaces

- O-CU, O-DU, and O-RU components
- RAN Intelligent Controller RIC architecture
- Open Fronthaul Interface
- E2, A1, and O1 interfaces

Day 3: RAN Intelligent Controllers and xApps

- Near-RT RIC and Non-RT RIC functions
- xApp development and deployment
- AI/ML integration in RAN
- Use cases for RAN optimization

A graphic featuring a chessboard with several chess pieces (a king, a queen, and a pawn) and concentric circles emanating from behind them. The text 'UK Training' is above 'PARTNER' in a bold, sans-serif font.

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Day 4: Open Fronthaul and Virtualization

- Open Fronthaul specifications and protocols
- Virtualization and cloudification in O-RAN
- Network slicing in O-RAN context
- Security considerations in O-RAN

Day 5: O-RAN Deployment and Integration

- O-RAN deployment scenarios
- Integration with 5G core networks
- Performance optimization techniques
- Future trends and roadmap for O-RAN

Practical Wins for Participants

- Ability to design and plan O-RAN architectures for various deployment scenarios
- Hands-on experience with RIC and xApp development
- Skills to implement and optimize Open Fronthaul interfaces
- Knowledge to integrate O-RAN solutions with existing 5G networks

A graphic of a chessboard with several chess pieces. A large gold king piece is prominent in the foreground, with a silver pawn and a silver knight behind it. In the background, there are concentric circles emanating from a point, suggesting a signal or network. The text 'UK Training' is above the word 'PARTNER' in a bold, black, sans-serif font.

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