Course: Intensive Wireless Networking Immersion

Course Duration: 5 days / 40 hours

Module 1: Wireless Foundations

- Introduction to Wireless Standards and Industry Organizations
- Understanding Radio Frequency (RF) Fundamentals
- RF Signal Characteristics: Strength, Frequency, and Modulation
- Antenna Concepts and Selection for Optimal Performance
- Exploring Different WLAN Topologies and Deployment Scenarios
- Decoding 802.11 Frame Types and Their Significance

Module 2: Advanced WLAN Design

- In-Depth Analysis of IEEE 802.11 Standard and Key Amendments
- RF Components and Measurements: Unveiling the Mathematics
- Crafting Effective WLAN Designs with Advanced Concepts
- Strategies for Secure WLAN Implementation and Best Practices
- Vigilant Defence: Wireless Attacks, Intrusion Monitoring, and Policies

Module 3: Mastering Advanced Technologies

- Harnessing the Power of MIMO Technology for Enhanced Performance
- Unleashing the Potential of 802.11ax (Wi-Fi 6) for High Efficiency
- Quality of Service (QoS): Configuration, Prioritization, and Optimization
- Mastering Location Services for Enhanced User Experience
- Navigating Multicast Implementation in Wireless Networks

Module 4: Strategic WLAN Deployment

- AP Placement Strategies: Optimizing Coverage and Capacity
- Controllers' Command: Initial Configuration and Seamless Discovery
- Roaming Strategies: Ensuring Uninterrupted User Experience
- Crafting Guest Networks and Managing BYOD Access
- WCS (Wireless Control System): Effective WLAN Management

Module 5: Real-World Challenges and Application

- Analysing Real-Life WLAN Scenarios and Complex Challenges
- Implementing Solutions for Troubleshooting and Performance Enhancement
- Wireless Network Optimization: Performance and Efficiency Strategies
- Integrating Wireless Networking with Emerging Technologies
- Constructing Comprehensive Wireless Networking Solutions