BLACKBIRD FOR TRAINING

Microwave Radio Communication Systems

3 – 7 January 2027
Dubai (UAE)



Microwave Radio Communication Systems

Ref: 3254317_306997 **Date:** 3 – 7 January 2027 **Location:** Dubai (UAE) **Fees:** 4900 GBP

Introduction

This comprehensive course on Microwave Radio Communication Systems is designed to provide participants with a deep understanding of microwave radio communication technology. Covering everything from the basics of radio communication to advanced topics, participants will explore the intricacies of microwave communication equipment, protocols, and management systems. By the end of the course, participants will have the knowledge and skills required to effectively design, deploy, manage, and maintain microwave communication systems.

This course will also emphasize the importance of radio communication across various industries, highlighting the impact of radio communication on modern technology and infrastructure. Participants will gain insights into radio communication protocols, the types of radio communication, and the integration of microwave communication into broader network systems.

Course Objectives

By the end of this course, participants will:

- Gain an in-depth understanding of microwave radio communication systems and their key components.
- Learn about advanced microwave communication equipment and technologies used in modern radio communication systems.
- Understand the integration of IP/Ethernet with microwave communication systems.
- Explore different types of radio communication, focusing on Line-of-Sight LOS communication, link types, frequencies, and distances.
- Grasp the role of signal transfer, types of losses, and their effects on microwave communication.
- Dive into PDH and SDH protocols, framing methods, and modulation techniques used in microwave transmission.
- Understand alignment procedures and advanced features like Xpic protection and diversity schemes FD, SD.
- Learn about IPasolink ODU, its features, and its role in effective microwave communication.
- Master the setup and management of alarms, status messages, and LCT for efficient system control.
- Explore radio link setup, provisioning, and maintenance control procedures.
- Develop skills in metering, inventory management, and software license setup.
- Gain proficiency in equipment utility, user account management, and security protocols.
- Familiarize with PNMSj and its role in network management and maintenance.



Course Outlines

Day 1: Fundamentals of Microwave Radio Communication

- Introduction to microwave radio communication systems.
- Radio communication basics: principles and components of microwave communication.
- Overview of frequency bands, regulations, and the importance of Line-of-Sight communication.

Day 2: Microwave Equipment and Technology

- Detailed overview of microwave communication equipment.
- Advanced technologies in microwave radio communication systems.
- Concepts of IP/Ethernet integration in radio communication systems.
- Introduction to PNMSi for network monitoring and management.

Day 3: Protocols and Modulation Techniques

- Understanding PDH and SDH protocols in microwave communication.
- Techniques for framing in microwave communication.
- Exploration of various modulation techniques used in microwave radio communication.

Day 4: Advanced Features and Management

- Understanding Xpic protection and diversity schemes in microwave communication.
- Configuring N+N links and exploring advanced IPasolink ODU features.
- Managing alarms, status messages, and setting up LCT for effective system control.

Day 5: Network Management and Maintenance

- Procedures for radio link setup and provisioning in microwave communication systems.
- Techniques for maintenance control and metering of microwave systems.
- Managing inventory, software licenses, and understanding PNMSj for network element connections.



Why Attend This Course: Wins & Losses!

- Gain a thorough understanding of microwave radio communication systems and their practical applications.
- Master the basics of radio communication and learn how to apply them to modern microwave communication challenges.
- Learn how to implement and manage radio communication protocols effectively within complex network environments.
- Understand the importance of radio communication in various industries, from telecommunications to police radio communication and emergency services.
- Develop skills in handling microwave communication equipment and troubleshooting radio communication systems.
- Discover the impact of radio communication on global connectivity and how to optimize systems for better performance.
- Gain hands-on experience with microwave communication basics, including equipment setup and system maintenance.

Conclusion

By the end of this course, participants will have a thorough understanding of microwave radio communication systems, their operation, and the latest techniques and protocols used in the industry. Participants will be proficient in microwave communication equipment setup, maintenance, and management, ensuring the ability to apply this knowledge in real-world scenarios.

Whether you're interested in mastering personal radio communication systems, understanding correct radio communication protocols, or exploring the broader implications of radio communication in various sectors, this course will equip you with the tools and knowledge needed to excel in the field of microwave communication.

Join us to elevate your expertise in microwave radio communication and make a lasting impact in your industry!

