TELECOMMUNICATIONS & 5G · TRANSMISSION

Microwave Transmission Links

وصلات الإرسال بالميكروويف

3 days | Intermediate | In person · Live online | Arabic & English

Design, install and maintain microwave links. You will learn line of sight and Fresnel zones, link budgets and availability, frequency and channel planning, antenna alignment, protection schemes and the routine checks that keep links stable.

WHO IT'S FOR

Transmission engineers, field technicians and planners working on microwave backhaul.

BEFORE YOU START

No formal prerequisites: bring curiosity and a willingness to practise.

WHAT YOU'LL LEARN

- Check line of sight and Fresnel-zone clearance.
- Calculate a link budget and expected availability.
- Plan frequencies, channels and polarisation.
- Install and align antennas and outdoor units.
- Configure protection and carry out routine maintenance.

Training a team?
We run this course privately for organizations, on your dates, at your site or ours, and adapt the examples to your network and equipment.

COURSE OUTLINE

5 modules, 3 days

MODULE 01

Microwave basics

- Frequency bands
- Line of sight and Fresnel zones
- Fading and rain

MODULE 02

Link design

- Link budgets
- Availability targets
- Frequency and channel planning

MODULE 03

Equipment

- Indoor and outdoor units
- Antennas and waveguides
- Adaptive modulation

MODULE 04

Installation and alignment

- Mounting and grounding
- Antenna alignment
- Commissioning checks

MODULE 05

Protection and maintenance

- 1+1 and ring protection
- Performance monitoring
- Preventive maintenance

ALSO IN TRANSMISSION

GNSS & GPS Fundamentals, **Microwave Link Planning with Pathloss**, **Satellite Communications**, **Optical Transport Networks: SDH, OTN & DWDM**, **Submarine Cable Systems**

Enrol or ask a question

In person in Damascus · Live online · Private training for teams. Tell us your goals and we will send the dates, the fees and the right level for you.

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