TELECOMMUNICATIONS & 5G · 4G & 5G NETWORKS

4G LTE Fundamentals

أساسيات شبكات 4G LTE

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

Understand the network that carries most of today's mobile data. You will learn LTE architecture, the radio interface, how phones attach, move and stay connected, the evolved packet core, and the key performance indicators engineers watch every day.

WHO IT'S FOR

Radio, core and operations engineers, technicians and planners working with mobile networks.

BEFORE YOU START

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

WHAT YOU'LL LEARN

- Describe LTE architecture and its network elements.
- Explain OFDMA, MIMO and the LTE radio interface.
- Follow attach, handover and bearer procedures.
- Describe the evolved packet core.
- Interpret key LTE performance indicators.

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

From 2G to 4G

- Evolution of mobile networks
- LTE goals and features

MODULE 02

LTE architecture

- eNodeB and EPC
- Interfaces and protocols

MODULE 03

Radio interface

- OFDMA and SC-FDMA
- MIMO
- Channels and frame structure

MODULE 04

Procedures

- Attach and registration
- Mobility and handover
- Bearers and QoS

MODULE 05

Performance

- Coverage and capacity
- Key performance indicators
- Common problems

ALSO IN 4G & 5G NETWORKS

5G Fundamentals, **End-to-End Mobile Networks: from the Handset to the Core**, **Mobile Core Networks: 2G to 4G and IMS**, **5G Core & Network Architecture**, **Wireless Engineering: 2G to 5G, End to End**

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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