

LTE Air Interface (TK411)

Prerequisites

Participants should have basic knowledge of GSM, GPRS and UMTS. Participants should have attended the TEKonsult course LTE Basics.

Target groups

Personnel requiring a detailed understanding of LTE Air interface operation such as Radio network planning/optimization/performance engineers with experience in the fields of 2G/3G.

Duration

3.0 days

Course Content

LTE Air Interface Protocols

- LTE Protocol Architecture
- RRC and MAC Functionalities

OFDM and Modulation Technologies

- Modulation Basics
- DL OFDMA
- UL SC-FDMA

LTE Radio Channels

- Logical Channels
- Transport Channels
- Physical Channels
- Channels Multiplexing

Physical Channels Mapping

- TDD and FDD Frames
- Physical Layer Procedures
- DL Physical Channels
- UL Physical Channels

LTE Radio Resource Management

- Overview of UE Mobility Activities
- RRM Functionalities (Admission Control, Handover Control, Power Control)

MIMO Technology Overview

- Fundamentals of Multiple Antennas Theory
- Physical-Layer MIMO Performance