

يقدم هذا البرنامج التدريبي نظرة مفصلة عن طبيعة عمل نظام التترا اللاسلكي المستخدم في أجهزة الخدمات العامة (الأمن الداخلي، الإسعاف، الدفاع المدني..) يساهم هذا البرنامج في توفير المعلومات الضرورية للمهندسين والفنيين المعنيين في هذا المجال وزيادة مستوى ادائهم في ادارة الشبكة اللاسلكية.

Course Title: TETRA Overview
Course Reference: TET-11A

Level: Introductory/Intermediate

Duration: 5 days

Description:

This course offers a very important introduction to TETRA technology, TETRA network parameters, functionalities, and the parameters that influence its performance. It is designed to equip individuals who deal with TETRA network aspects on a regular basis with the right knowledge and information on their networks.

Course Objectives:

Upon finishing this course the trainee will have:

- Understood the differences between the different types of wire line and wireless technologies.
- Known the principles of TETRA technology and the main parts of a TETRA network.
- Comprehended the TETRA air interface and the differences between physical and logical channels.
- Understood the main functionalities of a TETRA network.
- Been familiarised with the different modes of communications between TETRA users.
- Understood the financial aspects of a TETRA network deployment.
- Known the positioning of TETRA systems in the market place.
- Understood the radio planning process in a GSM network including coverage planning, traffic dimensioning, and interference analysis.
- Known the network measurement and optimisation processes.
- Known about some actual study cases to assess the benefits of TETRA network.
- Been familiarised with the different types of antennas that are used in a GSM network and the impact of each of their electrical and mechanical parameters on the whole performance of the antenna.

Who attends this course?

- Managers and technical managers who wants to learn about public services networks and their deployments.
- Engineers and technicians who have a direct contact with TETRA network deployment processes.
- Team leaders.
- Radio planners.
- Network optimisation engineers and technicians.
- Project managers.
- Sub-contractors.

Accessories:

All trainees will be supplied with "Wireless Domain Instruction Package" containing the complete course manual and CD for future reference to the course contents.

ما يحصل عليه المتدرب بعد انتهاء فترة التدريب:

■ يساعد هذا البرنامج التدريبي على تعريف انواع التكنولوجيات السلكية واللاسلكية المختلفة لهذا النظام.

■ تفهم طبيعة عمل هذا النظام وانواع الاستخدامات المناسبة لهذا النوع من الشبكات.

■ التعرف على الخواص الفنية وكيفية تخطيط الشبكة وتحسين ادائها وادارة مرافقتها.

■ التعرف على انواع الهوائيات المناسبة لشبكات نظام التترا.

الضئات التي يمكن أن تستفاد من هذا المنهج التدريبي:

■ المدراء ومدراء المشاريع.

■ المهندسين.

■ الفنيين.

■ رؤساء الفرق الفنية.

■ فرق تخطيط الشبكة وقياس ادائها.

■ منفذي أعمال الشبكة.

Course Contents:

FIRST PART: GENERAL OVERVIEW

- TETRA: Technology Description.
- Legal Issues (licensing, Standards, IP).
- TETRA Air Interface.
- Main Properties.
- Network Architecture.
- Special TETRA features.
- Security.
- Direct Mode.
- PTT.
- Market Positioning.
- Financial Considerations: Network Cost.
- Applications: Police, Military, Ambulance, Rescue, Oil Fields, Transport..

SECOND PART: TECHNICAL ISSUES

- Planning for a TETRA Project.
- Radio Planning.
- Coverage.
- Capacity.
- Interference.
- Network Deployment.
- Performance Measurement & Optimisation.
- Network Availability.
- TETRA: What Is Next?
- Antennas For TETRA and Other Cellular Networks