

SDH Fundamentals

COURSE AIM:

This course will allow attendees to gain a solid understanding of current SDH networks and technology. It will explain network elements, timing & synchronisation, framing & payloads providing attendees with an understanding of how the technology works, and what to look for when testing an SDH system.

COURSE OBJECTIVES:

- To understand PDH & SDH Framing
- To understand new mapping techniques
- To understand the turn up and fault finding procedures for SDH networks

COURSE DESCRIPTION:

As the demand for bandwidth increases, communications networks must evolve to keep up. This course enhances knowledge of PDH and SDH concepts and traces their evolution. In addition, the course focuses on the testing necessary to ensure PDH and SDH network performance.

FORMAT:

2-day, interactive classroom based
Maximum attendees: 15 per course

CONTENT:

- Revision of PDH technology
- SDH network overview, including network elements
- SDH related ITU-T standards
- Network topologies and transmission media
- The STM-1 framing structure and representations
- Regenerator section, multiplexer section and path overhead concepts
- Pointer concepts
- Mapping 2Mb, 34Mb and 140Mb signals into SDH STM-1 frames
- Container, virtual containers, administrative units and jargon
- GFP, VC & LCAS for frame based service mapping
- Timing and network synchronisation Issues
- SDH alarms and measurements
- Transmission impairments
- Higher order SDH signals