

# Telecoms Engineering

## Course Name

Copper Telecoms Cable Testing

## Course Description

Introduction

Features of telephone and other copper comms cabling and networks, network topologies

- Basic Electrical Theory

Voltage, current and resistance, SI units

- Signalling on Copper Comms Cables

Analogue and digital, frequency and bit rate, electrical characteristics of data cables, DC loop.

- Testing Scenarios & Configurations

Commission testing, maintenance & fault finding

- Using a Multimeter

Principles of tests, power, battery, earth, short circuit, contact and disconnections tests, multimeter setup, testing sequence

- Using a Tone Amplifier & Generator

Principles of tests, setup of equipment, locating cables

- Using a Ohmmeter (Bridge Megger)

Principles of tests, insulation resistance, loop resistance, test leads, instrument settings

- Using a Certification Tester

Principles of tests, setup of equipment, performance standards

- TDR Testing

Principles of TDR testing, analysis of TDR traces

- Analysis of Test Results

Ascertain line conditions and faults from multimeter, Ohmmeter & other test results

- Course Review

- Assessments

Practical assessment & short written tes

## Audience

est engineers responsible for commissioning & acceptance testing of new installations • Maintenance staff (faultsmen) responsible for locating faults • Managers and engineers who are required to accept, interpret or understand test results N.B. A basic understanding of copper cable jointing is required for this advanced course

**Duration:** 3 Day(s) **Class Size:** 6

## Competence Name Awarded

Undertake corrective and preventative maintenance of Telecomms cable systems. Telecomms Copper Cables - Fault Location & Routine Maintenance Testing

## Competence Awarded

Tel 02.06

**Course Code**

Tel 02.06

**Prerequisite Name**

**Prerequisite Short Code**

**Skills Assessment Scheme Regime**

4

**Course Type**



Face to Face

**Download Date: 22/11/2024**