

#### Description

This unit is concerned with the installation, splicing, connectorisation, termination and testing of fibre optic cable in a typical internal datacomms environment,

#### Venue

Melksham, Wiltshire

#### Duration

Depending on units selected—Either 5 or 9 days

## COURSE CONTENT

### Working Safely with Optical Fibres in an Internal Environment

- ◆ Safe working procedures of installation of fibre cables
- ◆ Safe working in preparation of fibre cables
- ◆ Special precautions and safe working procedures in relation to splicing and termination

### Terminating Fibre Optic Cable by Fitting Connectors

- ◆ Types and uses of common connectors
- ◆ Termination tools and materials
- ◆ Fitting procedures for connectors
- ◆ Common faults in termination
- ◆ Performance tests

### Recommended Installation Procedures

- ◆ Use of fibre optics in LAN.s
- ◆ Types of optical fibres
- ◆ Fibre specifications and parameters
- ◆ Fibre and cable test methods and documentation
- ◆ Components within an optical fibre communication system
- ◆ Best practices and fibre management of installation

### Testing Fibre Optic Links

- ◆ Measuring loss
- ◆ Test equipment and their features
- ◆ Testing procedures
- ◆ Operating test equipment
- ◆ Understanding and identifying test results

### Preparation for fibre connectorisation and Splicing

- ◆ Cable characteristics
- ◆ Constructional features of fibre optic cable
- ◆ Cutting and stripping tools
- ◆ Fibre preparation, cleaning and techniques used

### Exam and Assessment Method

#### City & Guilds Multiple Choice Assessment

- ◆ Online 1 hour City & Guilds—Multiple choice

### Splicing Together Optical Fibres

- ◆ Principles and methods of splicing
- ◆ Cleaving
- ◆ Fusion and mechanical splicing equipment and applications
- ◆ Performance in relation to industry standards
- ◆ Troubleshooting

**Description** This unit is concerned with the installation, splicing, termination and testing of fibre optic cables, typically a multi-element, singlemode fibre cable of at least 24 fibres, used in an external environment

**Venue** Melksham, Wiltshire

**Duration** Depending on units selected—Either 5 or 9 days

## COURSE CONTENT

### Working Safely with Optical Fibres in an External Environment

- ◆ Safe working procedures and regulations in regard to;
  - Installation
  - Splicing
  - Testing
  - Industry legislation/guidance

### Recommended Installation Procedures

- ◆ Fibre optics in communication networks
- ◆ Fibre specifications and parameters
- ◆ Test and inspection methods
- ◆ Components and equipment
- ◆ Best practices and fibre management
- ◆ Testing methods
- ◆ Cable laying procedures

### Preparing Fibre Optic Cable for Fibre Splicing

- ◆ Identifying Cables
- ◆ Constructional features of singlemode fibre
- ◆ Cable cutting and stripping tools
- ◆ Fibre cleaning materials and techniques
- ◆ Preparing cable for splicing

### Joining Fibre Optic Cables by Splicing

- ◆ Cable jointing environment
- ◆ Working principles of splicing
- ◆ Preparing bare fibre
- ◆ Splicing fibres
- ◆ Sealing and cable retention for joint enclosure

### Terminating Fibre Optic by Splicing on pre-terminated pigtails

- ◆ Suitable connectors for telecoms environment
- ◆ Cable termination
- ◆ Cleaving ,tools and techniques
- ◆ Splice management and protection systems

### Testing Fibre Optic Links

- ◆ Test methods
- ◆ Testing equipment i.e ILM, OTDR.
- ◆ Understanding results
- ◆ Documenting and comparing results

### Exam and Assessment Method

#### City & Guilds Multiple Choice Assessment

- ◆ Online 1 hour City & Guilds—Multiple choice
- ◆ Assessed practical exercises