

OP-456-88 Advanced Fibre Course

(1) OPTICAL FIBRES AND OPTICAL COMMUNICATIONS

Benefits of fibre
Wavelength & Infra-Red Communications
Fibre Construction & Total Internal Reflection
Primary & Secondary Coated Fibre
Fibre Profiles – Singlemode & Multimode
WDM, CWDM, DWDM
Understanding Units – nanometres, dBm, dB
System budget calculations
Fibre Loss Mechanisms
Rayleigh Scattering
Absorption
Bending Losses: Macrobending & Microbending
Dispersion Mechanisms
ITU G.65x series fibre specifications
OM1, OM2, OM3, OS1, OS2 fibre specifications
10 GigE systems

(2) HEALTH & SAFETY

Safety risks
Fibre hazard
Accessory hazards
Power hazards
Laser Classifications

(3) CABLES & CONNECTORS

Cable design
Cable types and developments
Connector basics
Construction
Connector Cleaning
Reflections
Polish Styles
Connector Performance
Connector types

(4) TESTING

Insertion loss measurements
Bare fibre cut back tests
Return loss and reflections
Continuity checking - visible lasers
Live fibre identifying
Source Issues
Meter Issues
Calibration issues

(5) SPLICING

Splicer features
Types of splicer
Splicer theory of operation
Splice loss measurement
Good and bad splices
Parameter set up
Fibre Stripping Methods
Cleaving
Fibre positioning and clamping
Splicing the fibre
Splice Protection
Mechanical alternatives

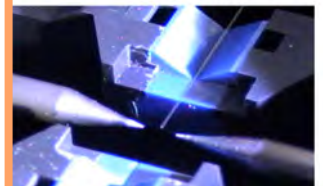
(6) FIBRE MANAGEMENT & JOINTING

Fibre Cable Joints & Fibre Management principles
Cable & Joint Preparation
Sheath Stripping
Fibre Cleaning
Fibre routing into splice tray
Splicing and Splice Protection
Completing the fibre Joint.
Optical Distribution Frames

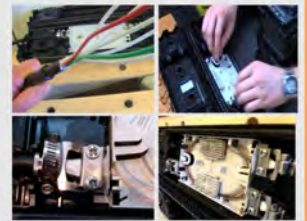
(7) TERMINATING CONNECTORS

Connectors
Connector polish styles
Connector Types
Connector parts
Field termination tools
Fibre Stripping & Preparation
Connector preparation
Assembling the connector
Curing
Scribing
Polishing
Inspection
Importance of Clean Connectors
Cleaning Methods
Mechanical Splicing
Testing Connectors

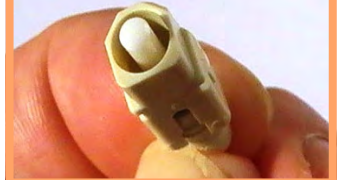
Place fibre in v-groove



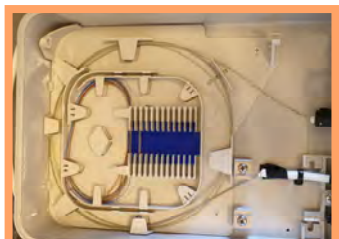
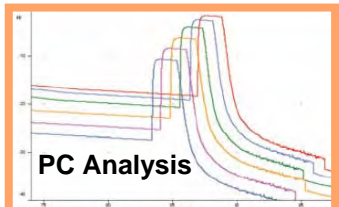
Joint Cables



Connector Termination



Splicer Care



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(8) SPLICING BASICS

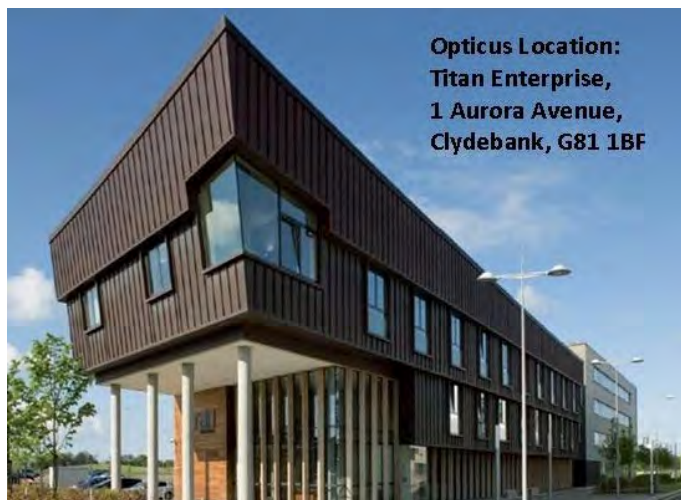
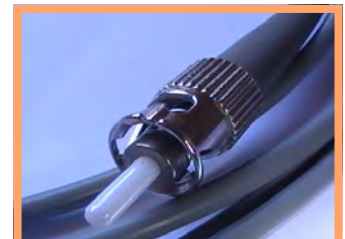
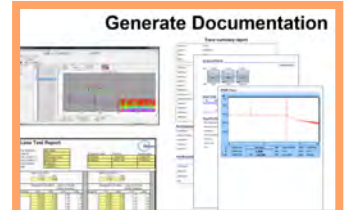
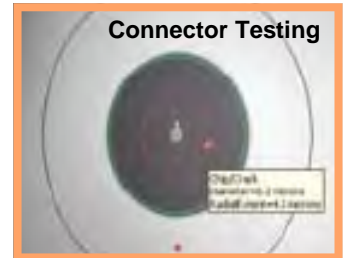
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- Types of splicer
- Splicer theory of operation
- Splice loss measurement
- Good and bad splices
- Parameter set up
- Fibre Stripping Methods
- Cleaving
- Fibre positioning and clamping
- Splicing the fibre
- Splice Protection
- Mechanical alternatives

(9) FIBRE MANAGEMENT & JOINTING

- Fibre Cable Joints & Fibre Management principles
- Cable & Joint Preparation
- Sheath Stripping
- Fibre Cleaning
- Fibre routing into splice tray
- Splicing and Splice Protection
- Completing the fibre Joint.
- Optical Distribution Frames

(10) TERMINATING CONNECTORS

- Connectors
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- Connector Types
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- Assembling the connector
- Curing
- Scribing
- Polishing
- Inspection
- Importance of Clean Connectors
- Cleaning Methods
- Mechanical Splicing
- Testing Connectors



OP-456-88 Duration : 5 Days

Course can be tailored to suit specific requirements – please contact us on +44 (0) 1419517822 to discuss your needs.

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