

# Fiber Optic Technician (CFOT) Training



## 2020 Schedule and Venues

<b>Johannesburg</b>	<b>Cape Town</b>	<b>Durban</b>
The Venue at Midrand Allandale Junction 128 Richards Drive Midrand	Datanet 7 Pepper Place Rainbow Park 2 Omuramba Road Montague Gardens	Queensmead Hockey Stadium 44 Teignmouth Rd Umbilo Berea
<b>15 - 18 Sept Available</b> <b>06 - 09 Oct Available</b>	<b>29 Sept - 02 Oct Available</b>	<b>08 - 11 Sept Available</b>

**Cost:** R 8 800.00 p.p. incl. VAT

**Duration:** 4-days

**Time:** 08h30 to 16h30

**Confirmation:** Registrations cannot be confirmed until payment is made in full

**For Bookings...**

**Please complete and email page-4 to: [register@tripleplay.co.za](mailto:register@tripleplay.co.za)**

**...or, go to <http://www.tripleplay.co.za/> to register online**

## WHO SHOULD ATTEND and WHY CHOOSE THE FOA?

No previous experience, skills or knowledge is needed to do this course.

An educational association's reputation is something that you should consider when choosing a place to study. You should focus your attention on those that have name recognition and are known the world over for being "good". The FOA embodies "good". The FOA is particularly known for its more than ample online resources, access to approachable, helpful, and passionate subject matter experts.

We are also MICT SETA registered.

Our **COVID-19 Workplace Preparedness and Response Plan** is available upon request and is downloadable from our Website under "downloads" <http://www.tripleplay.co.za/>

Should you have any questions about this course, please feel free to contact:

Joe Botha: +27 (0) 82 464 0386 or [joebotha@telkomsa.net](mailto:joebotha@telkomsa.net)

# Course Content - summary

## DAY ONE 08:30 - 16:30

- ◆ Introduction to Fiber Optics
- ◆ What is Fiber Optics?
- ◆ Fiber manufacturing methods (video)
- ◆ Fiber advantages
- ◆ How fiber works
- ◆ Refraction & Reflection
- ◆ Fiber Types:
  - OM 1, 2, 3, & 4
  - SM G.652, G.655, G.656 & G.657
- ◆ Mixing G.652, G.655, G.656 and G.657
- ◆ Cut-off wavelength
- ◆ Frequency
- ◆ Numerical aperture
- ◆ Mode-field diameter
- ◆ What is an Optical Network?
- ◆ Transmitters and transceivers
- ◆ Optical modulation
- ◆ Optical fiber parameters
- ◆ Transmission bands
- ◆ CWDM, DWDM and TDM
- ◆ Attenuation, Scattering and Absorption
- ◆ Inter Modal and Chromatic Dispersion
- ◆ Polarization Mode Dispersion
- ◆ Coefficients and system performance
- ◆ Mode-conditioning
- ◆ Amplifiers and Attenuators
- ◆ Cable Types
- ◆ Loose tube and Tight buffer
- ◆ Choosing a Cable
- ◆ Cable specifications
- ◆ NEC Ratings
- ◆ Cable plant hardware
- ◆ Optical Fiber Cable Color Coding
- ◆ Best practices for installing cable
- ◆ Bonding and grounding
- ◆ Pulling fiber optic cable
- ◆ Air-assisted fiber installations
- ◆ Slack management
- ◆ FTTx
- ◆ Fiber Optic Installation Safety Rules

## DAY TWO 08:30 - 16:30

### SPLICING: FUSION and MECHANICAL

- ◆ Choosing a Splice Type
- ◆ Cable and fiber preparation techniques
- ◆ Fusion splicing timesaving techniques
- ◆ Splice Loss - cause and remedy
- ◆ Fusion splicer maintenance and cleaning
- ◆ Connector types
- ◆ Termination procedures

### HANDS-ON Practical Session

- ◆ Fusion splicing
- ◆ Mid spanning
- ◆ Connectorization
- ◆ Polishing techniques
- ◆ Fiber optic enclosures

## DAY THREE 08:30 - 16:30

### TESTING, TROUBLESHOOTING & MORE SPLICING

- ◆ OTDR and iOLM characterization
- ◆ Testing at various wavelengths
- ◆ Troubleshooting procedures
- ◆ Acceptance testing
- ◆ Loss and Power Budget calculations
- ◆ Calculate admissible lengths
- ◆ Insertion loss testing
- ◆ System Certification
- ◆ Documenting test results
- ◆ Gainers and Mode-Field Diameter issues
- ◆ Nano-engineered ring issues
- ◆ Measurement units
- ◆ Cleaning connectors

### HANDS-ON Practical Session

- ◆ Working with the following test instruments: Visual Fault Locators, Fiber Microscopes, Power Sources, Power Meters, Dark Fiber Identifiers, OTDR's, iOLM and more fusion splicing, etc.

## DAY FOUR 08:30 - 12:00

- ◆ WRAP-UP AND TEST ISSUES
- ◆ Test

Please complete the Registration Form below and submit for invoicing to:  
register@tripleplay.co.za

Next to your venue of your choice, please enter the date of the course					
JHB		CPT		DBN	

**DELEGATE @ R8 800.00 incl. VAT:**

**DELEGATE @ R8 800.00 incl. VAT:**

Name:

\_\_\_\_\_

Name:

\_\_\_\_\_

Surname:

\_\_\_\_\_

Surname:

\_\_\_\_\_

Designation:

\_\_\_\_\_

Designation:

\_\_\_\_\_

Telephone:

\_\_\_\_\_

Telephone:

\_\_\_\_\_

Mobile:

\_\_\_\_\_

Mobile:

\_\_\_\_\_

Email:

\_\_\_\_\_

Email:

\_\_\_\_\_

Dietary Req:

\_\_\_\_\_

Dietary Req:

\_\_\_\_\_

Company Name:

\_\_\_\_\_

VAT Registration #

\_\_\_\_\_

Postal Address:

\_\_\_\_\_

Contact Person:

\_\_\_\_\_

Telephone:

\_\_\_\_\_

Email:

\_\_\_\_\_

Authorised Signatory:

\_\_\_\_\_

I hereby acknowledge the terms and conditions of this training course and confirm acceptance of the cancellation policy.

Cancellation notice period	Fees payable
7 or more days	No cancellation fee payable
Less than 7 days	A 10% cancellation fee applies