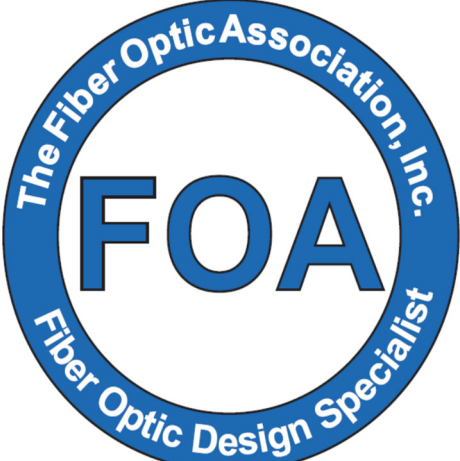



Fiber Optic Network Design Specialist

Students will study best practices and design alternatives for long-haul, metro, access and FTTH PON networks

| | | |
|---|---|--|
| <p>Venue and Date</p> <p>Datanet 7 Pepper Place Rainbow Park 2 Omuramba Road Montague Gardens</p> |  |  <p>mictseta ACC/2012/05/771</p> |
| <p>03 - 06 Sept Available</p> | | |



Cost: R 8 500.00 p.p. incl. VAT
Duration: 4-days
Time: 08h30 to 16h30 daily

| |
|---|
| <p>For Bookings please contact</p> |
| <p>Sarona du Toit Tel: 021 550 0109 Email: saronadt@pinnacle.co.za</p> |
| <p>...or, go to http://www.tripleplay.co.za/ to register online</p> |

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

Joe Botha

Mobile: +27 (0) 82 464 0386

Email: joebotha@telkomsa.net

GENERAL INFORMATION:

This is your chance to pose your questions, to review your solution choices, discuss upcoming technologies and benchmark ideas.

Optic Association Inc. (FOA) certification programs are without question the most recognized in the world today.

WHO SHOULD ATTEND?

It is intended for contractors, installers, architects and engineers, project managers and all others who are involved with projects that include fiber optics.

Prerequisites for the certification include having a FOA Certified Fiber Optic Technician (CFOT) certification.

INSTRUCTIONAL METHOD:

The instructional methods used include: lectures, demonstrations, and solving case studies.

Significant class time is devoted to designing hypothetical networks.

Students will be tasked with solving as many as 15 different design case studies set to challenge capabilities in analysing design rules and design alternatives.

Diversity in perspective sets the stage for a lively exchange of ideas where students can learn from teams or individuals supporting different outcomes.

LEARNING OUTCOMES:

Design and cost performance optimized Optical Communication solutions.

Design both traditional and next-generation optical networks to meet specified capacity, flexibility, and reliability requirements.

COURSE CONTENT:

Students will study emerging technologies, design alternatives, configuration options, media selection criteria, key parameters affecting system performance, and the underlying theory required for total network design from initial planning to installation issues.

EVALUATION:

Students will be eligible to write the exam on day-4 of the course.

Course Content - summary

Day-1

Analog and Digital Transmission
Transmission basics (SDH, PDH, E1, etc.)
The Transport Network Infrastructure
Circuit-Switched Networks
Packet-Switched Networks
Ethernet
Voice, Data, Video and Bandwidth
Physical Topologies
Ultra-long, long-haul and intra-building backbones
Optical amplifiers
Add/drop multiplexers
Wavelength Division Multiplexing
Modulation schemes
SM and MM fiber selection
Fiber count percentage rules

Day-2

Case studies
Calculate optical loss and power budgets
Calculate admissible distance
Calculate allowable CD
Calculate CD coefficient admissible fiber lengths
CD compensation
Calculate tolerable PMD coefficients
Calculate PMD coefficient admissible fiber lengths

Day-3

FTTH PON
Case studies
Transceiver selection
Next-Generation Networks and convergence
Splitter ratios - Centralized, Distribution and Home Run
Design and Cost P2P and P2MP solutions
FTTH Architectures
Design Impacts
Analog to Digital Video
IP Video Delivery
RF Overlay and RFOG
Bit rate maximizing

Day-4

Wrap-Up and Test Issues

**Please complete the CFOSD course Registration Form below and submit for
invoicing to: saronadt@pinnacle.co.za**

DELEGATE @ R8 500.00 incl. VAT:

DELEGATE @ R8 500.00 incl. VAT:

Name:

Surname:

CFOT #:

Telephone:

Mobile:

Email:

Dietary Req:

Name:

Surname:

CFOT #:

Telephone:

Mobile:

Email:

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.