Fiber Optic Network Design Specialist

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

TRIPLE PLAY
Fibre Optic Solutions

2024 Date/s		
11 - 14 March - Available	The Fiber Optic Association, Inc. FOA Fiber Optic Design Specialist	mictseta ACC/2012/05/771 SAQA ID 246720 NQF Level 05 Credits 16
The Venue at Midrand 128 Richards Drive Halfway House Midrand		

Duration: 4-days
Time: 08h30 to 16h30 daily
Cost: R9 300.00 incl. VAT
Bookings: Please complete and email page-3 to:
register@tripleplay.co.za
…or register online at http://www.tripleplay.co.za

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

Should you have any questions about the course content, please feel free to contact:
Joe Botha
Mobile: +27 (0) 82 464 0386
Email: joe@tripleplay.co.za

CERTIFICATION:
We issue students on the final day of training, with a certificate containing the FOA (internationally recognized) and MICT SETA credentials.
Students will also receive a barcoded certificate from the FOA along with a digital badge, read more about this here
https://www.foa.org/Badge_FO.html
Additionally, students will receive a SoR from MICT SETA.

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.

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 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.

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 backbones
Optical amplifiers
Add/drop multiplexers
Wavelength Division Multiplexing
Modulation schemes
SM and MM fiber selection

Day-2
Case studies
Calculate optical loss and power budgets
Calculate admissible distance
Calculate allowable CD
Calculate CD admissible fiber lengths
CD compensation
Calculate tolerable PMD coefficients
Calculate PMD 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 and IP Video Delivery
RF Overlay and RFOG
Bit rate maximizing

Day-4
Wrap-Up and writing of the test

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

DELEGATE @ R9 300.00 incl. VAT:

Name: _____

Surname: _____

Telephone: _____

Mobile: _____

Email: _____

DELEGATE @ R9 300.00 incl. VAT:

Name: _____

Surname: _____

Telephone: _____

Mobile: _____

Email: _____

Company Name: _____

VAT Registration # _____

Postal Address: _____

Contact Person: _____

Telephone: _____

Email: _____