



School name: **AFRALTI**  
 School # **758**  
 Name of course: **DESIGN FOR OPTICAL FIBER NETWORKS**  
 Certification to be given: **CFOS/D**

Pre-requisite: **CFOT or CPCT**

**Course Description:** *The five day course will give participants knowledge and skills they need to determine demand for optical fiber network by collecting data. It will show how to present this data for evaluation. Participants will learn how to carry out detailed design such as route planning, type and quantity of components requirements for outside plant and premises network. The course also covers, documentation project management , making project proposals and choosing contractor.*

**5- Day Schedule**

Day 1	Day 2	Day 3	Day 4	Day 5
Introduction to design Collecting data 1.Customer requirements 2.Technology requirements 3.Business requirements 4.Environmental requirements 5.Vendor requirements	1. Link power budget	1. Planning to install 2. Develop test plan 3. Planning for restoration	Case study 3  Long Distance telecom Network	Case Study 8  CCTV surveillance Link
1. Carrying out preliminary survey  2. Fundamental design  3. Making preliminary estimates  4. Analysing options 5. Seeking approvals	1. Determining Copper, fiber and wireless combination 2. Choosing Transmission equipment requirements 3. Choosing components for premises cabling 4. Choosing components for Outside plant	1. Choosing a contractor 2. Managing project 3. Final tests 4. Documentation		EXAM
1. Documentation at preliminary stage 2. Detailed survey	1. Making detailed estimates 2. Documentations at detailed design stage	Case study 1.  Fibre to the Home	Case Study 5  Campus LAN backbone	
1. Data processing	1. Making request for proposal Request for quotations Evaluations of bids			Course evaluation and closing

## **Administering of Test: Written CFOT Test (approx 2 hours)**

### **Reference materials**

Textbook: Fiber Optics Reference Guide by Jim Hayes, Supplementary Study Materials includes Workbook and Lab Manual.

AFRALTI CFOT, CPCT, CFOS/D, CFOS/H FOA Approved School # 758

<http://foa-approved.org/schools/african-advanced-level-telecommunications-institute-afralti>

For more information, please contact us on:

**Tel: +254 710 207 061, +254 733 444 421**

[\*\*training@afralti.org\*\*](mailto:training@afralti.org)

[\*\*www.afralti.org\*\*](http://www.afralti.org)