



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.*

Instructor who will be giving this course : **Joseph Lugalila #7580001**

**5- Day Schedule**

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