AFRICAN ADVANCED LEVEL TELECOMMUNICATIONS INSTITUTE (AFRALTI)

TRAINING WORKSHOP OUTLINE

Title: CERTIFIED PREMISES (STRUCTURED) CABLING TECHNICIAN (CPCT) COURSE

Duration: 5 Days

Course Overview: This course is intended first to define what structured cabling is by putting it into historical development context. The course also covers standards used in premises cabling. It covers copper, Fiber and wireless technologies used and corresponding components for multimode (OM1, OM2,OM3 and OM4) and single mode fibers, copper (UTP Cat 3, 5 and 6) and coax) and wireless. Student will learn how Wi-Fi technology is incorporated in cabling systems. The course will also go into testing methods and testing equipment used. There will be hands on labs to show various types of materials used, tools and equipment. We will have a rack and patch panels a board with 66 and 110 terminating blocks, plugs and jacks for cat5e cables. Students will learn various termination methods for multimode and single mode fibers.

The course will be conducted to meet FOA CPCT certification.

Target Audience: All persons working for or intending to work for telecommunication companies, ISPs, ICT consulting firms to carry out design, installation, and maintenance of cable networks. Also those carrying out marketing of cabling equipment and materials may attend.

Pre-requisite/s: Applicants must have a minimum of O-level or its equivalent of academic education.

Methodology: The course will be conducted in class using power point presentations, classroom discussions and lab demonstrations designed to give participants practice.

Workshop Objectives: At the end of the course participants should be able to design a structured cable network, distinguish various types of cables. Be able to, install, prepare and terminate all types of premises cables inside buildings and campus setup. Participants will be able to make SC, ST and LC connectors in field. They will be able to make Cat5e and multimode fiber patch cords. They should be able to carry out trouble shooting of copper and fiber installation. Participants will also appreciate how fiber copper coax and wireless are integrated to form a structured cabling system.

Workshop Contents/Topics:

1. A History of Cabling for Communications
2. Prefabricated Cabling Systems

3. Standard For structured Cabling Systems
4. Computer Networks
   Coax Cables In Structured Cabling Systems
5. Data Centres
   Designing structured Cabling Systems
6. Fiber Optics and Premises Cabling
7. Fiber Optics For Wireless
8. Installing UTP Cabling
9. The language of structured cabling
   Types of MM Fiber (om1,OM1, OM2, OM3, OM4
10. OLANs: Fiber Optic Local Area Networks
11. Structured Cable: UTP Termination (110 blocks, patch panels, RJ-45 for Cat5e)
12. Optical fiber terminations(connectorization)
13. Structured Cabling installation
14. Testing UTP Cabling
15. Testing optical fiber cable installation
16. The Role of Fiber Optics In Structured Networks
17. Unshielded Twisted Pair
18. Wiremap For UTP Cabling

Practical

1. UTP cable termination on patch panels and RJ-45
2. Terminating optical fiber cable
3. Testing UTP cable
4. Testing optical fiber installation

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
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