JKUAT ICT CONSULTANCY NCBD and JKUAT ICT DIRECTORATE, RESEARCH, CONSULTANCY & TRAINING OFFERING

Fiber Optic Training

We live in a connected environment and today worldwide communication backbones are based mostly on fiber optics. Fiber cabling is now the preferred choice for a large majority of business and home networks. As a result of this exponential growth in popularity over the last couple of years it is now more important than ever to learn on what Fiber Optic entails. Our Fiber Optic Short Course is designed as a preparation for those taking the CFOT Certification directly or planning to attend an FOA-approved course and want to prepare ahead of time.

This course combines theory and hands-on activities. The course also introduces the participant to industry standards governing outside plant and premises Fiber networks. A JKUAT certificate of participation will be issued upon successful completion of the short course.

OBJECTIVES:

By the end of the course the participant will be able to effectively and efficiently design, install, terminate, and test Fiber Optic.

TARGET AUDIENCE:

STEM Students, IT Managers, IT Technicians, Network Engineers, Project Managers, Telecommunication Engineers, Voice, Data and Video (VDV) and FTTx Technicians.

REGISTRATION AND COMMENCEMENT OF THE COURSE

The Fiber Optic Training will be offered at your request at the NCBD campus for a period of Five days.

The training will run as from 9:00 am-4:00pm Monday-Friday for both practical and theory sessions.

Registration will commence upon filling out a registration form and payment of Ksh. 25,000 per participant to JKUAT CBD Campus, Barclays Bank JUJA Branch. **A/C** No: 03-072-1022145. For the Couse to commence we will need at least 20 Participants per class

For more details about the training, contact Brian – 0721597637.

Day 1	Introduction to Fiber Optics • What are Optical Fibers • Optical Fiber Construction • Fiber Sizes	Optical Fiber Transmission • Fiber Optic Transmission Systems • Optic Transceivers and Receivers • Frequency and wavelength • Fiber Optic Transmission Window	Theory sessions	
Day 2	Fiber Optic Cable Types • Simplex and Duplex Cables	Fiber Splicing and Termination • Mechanical and Fusion Splicing	Theory sessions	

	• Loose-Tube and Tight Buffered • Indoor and Outdoor Cables • Armoured Fiber Cables	• Fiber Connector Types • Mechanical Termination • Hot and Cold Cure Termination		
Day 3	Signal Degradation Attenuation • Absorption • Dispersion • Scattering • Factors Affecting Splice Points	Implementing Fiber Optic Cabling in the LAN • Fiber Vs Copper • Channel Classifications • Channel Attenuation • Fiber Categories • Fiber Classifications • Fiber Channel Lengths • Fiber Optic Applications • Cabling Design	Theory sessions	
Day 4	Fiber Optic Safety • Optical Hazards • Chemical Hazards • Environmental Safety • Personal Safety	Fiber Optic Cable Installation • Fiber Cable Pulling • Maximum Cable Pulling Load • Fiber Cable Bend Radius • Pulling Cables in Ducts • Fiber Optic Colour Codes	Practical session	
Day 5	Fiber Optic Testing Types of Fiber Tests • Flashing and Visual Fault Locator • Fiber Microscope • Attenuation Testing • Optical Time domain Reflectometer	Using Equipment to perform Fiber Tests	Practical sessions	
Equipment participant will be exposed to: Splicing machine-for joining the Fiber OTDR-for testing the cable Closure kit-for outdoor cable preparation ODF-for indoor cable preparation.				