



ITU Centres of Excellence Network for Arab Region

Sudatel Telecommunications Academy (SUDACAD)

Online Training Course on
"Fiber To The Home (FTTH)"
03-07 November 2021

TRAINING COURSE OUTLINE

COURSE DESCRIPTION

Title	Fiber To The Home (FTTH)
Objectives	This training aims to focus on Optical Access Networks; specifically Fiber to the Home (FTTH) technologies, different key topics related to Optical Access Networks Fiber to the Home (FTTH) and will explain how the monumental growth of the Internet challenged Telecoms Service providers to provide Internet access.
Dates	03-07 November 2021
Duration	5 Days
Registration deadline	30 October 2021
Training fees	USD 75
Course code	21OI26435ARB-A

DESCRIPTION OF THE TRAINING COURSE

The candidates will gain a broad base of knowledge and familiarity with FTTH architecture, network design, deployment technology, and operational skills. The course is intended for network designers, network planners, supervisors, and project managers that will be involved in deploying and maintaining FTTH and FTTB networks.

This course features with an experienced FTTH instructor.

LEARNING OUTCOMES

It is expected that upon completion of the training session, participants will be able to:

- Understand the passive Optical Network (PON) architecture and its possible implementation.
- Identify the different varieties of PON architectures.
- Determine the differences between broadband Passive Optical Network (BPON), Gigabit Passive Optical Network (GPON) and Ethernet Passive Optical Network (EPON).
- Specify the required components that facilitate FTTx installations.
- Calculate the optical loss budget for a FTTx network.
- Test Fiber to the FTTx or fiber in the loop Networks.

TARGET POPULATION

This training course targets Optical Fiber Network manufacturers, designers, installers, infrastructure operators, Internet service providers, telecommunications managers, supervisors, technicians, graduates and apprentices plus other personnel whose work is related to FTTH systems or other professionals who require an insight into FTTH technologies.

ENTRY REQUIREMENTS

This course requires basic knowledge of fiber optic theory and terminology, as well as field Experience, equivalent formal training such as the Fiber Optics 1-2-3 course, or viewing the Light Brigade Staff Development DVD set.

TUTORS/INSTRUCTORS

NAME OF TUTOR(S)/INSTRUCTOR(S)	CONTACT DETAILS
Mr Atif Hamad Abdalla	atifhamad3@gmail.com

TRAINING COURSE CONTENTS

- Introduction to the passive Optical Network (PON) architecture and its possible implementation.
- Different varieties of PON architectures.
- Differences between broadband Passive Optical Network (BPON), Gigabit Passive.
- Optical Network (GPON) and Ethernet Passive Optical Network (EPON).
- Required components that facilitate FTTx installations.
- Optical loss budget calculation for a FTTx network.
- Fiber to the FTTx or fiber in the loop Networks.

TRAINING COURSE SCHEDULE / AGENDA

Date for day 1	Time (GMT)	Topics/Activities
03/11/2021	08:00 - 09:00	<ul style="list-style-type: none"> • Introduction.
	09:00 - 10:00	<ul style="list-style-type: none"> • Access Technology Alternatives
	10:00 - 11:00	<ul style="list-style-type: none"> • Introducing Optical Technology.

Date for day 2	Time (GMT)	Topics/Activities
04/11/2021	08:00 - 09:00	Day 1 review and recap.
	09:00 - 10:00	<ul style="list-style-type: none"> • BB Technologies & Architecture
	10:00 - 11:00	<ul style="list-style-type: none"> • PON.

Date for day 3	Time (GMT)	Topics/Activities
05/11/2021	08:00 - 09:00	Day 2 review and recap.
	09:00 - 10:00	<ul style="list-style-type: none"> • FTTx.
	10:00 - 11:00	<ul style="list-style-type: none"> • P-t-P Ethernet.

Date for day 4	Time (GMT)	Topics/Activities
06/11/2021	08:00 - 09:00	Day 3 review and recap.
	09:00 - 10:00	<ul style="list-style-type: none"> • Installation Techniques.
	10:00 - 11:00	<ul style="list-style-type: none"> • Network Design Configurations.

Date for day 5	Time (GMT)	Topics/Activities
07/11/2021	08:00 - 09:00	Day4 review and recap.
	09:00 - 10:00	<ul style="list-style-type: none"> • Basic commercial Aspects.
	10:00 - 11:00	<ul style="list-style-type: none"> • End user applications requirements.

METHODOLOGY (Didactic Approach)

- Instructor-led class lectures and presentations– slides.
- Reviews and revisions.
- Case studies.

EVALUATION AND GRADING

Participants will be evaluated according to:

- Active interaction in the group exercises and discussions;
- Planned Quizzes;
- Dedication in attending the sessions.

Grading will take into consideration attendance (30%) and a final overall exam (70%).

IMPORTANT: a passing mark of 60% is required for obtaining a completion certificate.

TRAINING COURSE COORDINATION

Course Coordinator: Ms. Sara Elmakki Abdalgadir Planning & Development Dept., SUDACAD Mobile: +249 117947230 Tel: +249 183 490 999 E-mail: saraab@sudatel.sd	ITU Coordinator: Eng. Mustafa Al Mahdi Programme Officer ITU Arab Regional Office Tel: +202 3537 1777 Mobile: +20114 1177573 Fax: +202 3537 1888 E-mail: mustafa.almahdi@itu.int
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REGISTRATION AND PAYMENT

ITU Academy portal account

Registration and payment should be made online at the ITU Academy portal.

To be able to register for the course you MUST first create an account in the ITU Academy portal at the following address:

<https://academy.itu.int/user/register>

Training course registration

When you have an existing account or created a new account, you can register for the course online at the following link: <https://academy.itu.int/training-courses/full-catalogue/fiber-home-ftth-0>

You can also register by finding your desired course in our training catalogue <https://academy.itu.int/training-courses/full-catalogue>

Payment

1. On-line payment

A training fee of USD 75 per participant is applied for this training. Payments should be made via the online system using the link mentioned above for training registration <https://academy.itu.int/training-courses/full-catalogue/fiber-home-ftth-0>

2. Payment by bank transfer

Where it is not possible to make payment via the online system, select the option for offline payment to generate an invoice using the same link as above. Download the invoice to make a bank transfer to the ITU bank account shown below. Then send the proof of payment/copy of bank transfer slip and the invoice copy to Hcbmail@itu.int and copy the course coordinator. All bank transaction fees must be borne by the payer.

Failure to submit the above documents may result in the applicant not being registered for the training.

3. Group payment

Institutional Contacts are users that represent an organization. Any student can request to be an institutional contact or to belong to any existing organization.

To do this, head to your profile page by clicking on the **“My account”** button in the user menu. At the bottom of this page you should see two buttons:

- a. If you want to **become an institutional contact**, click on the **“Apply to be an Institutional Contact”** button. This will redirect you to a small form that will ask for the organization name. After you fill the name of the organization you want to represent, click on **“continue”** and a request will be created. An ITU Academy manager will manually review this request and accept or deny it accordingly.
- b. If you want to **belong to an existing organization**, click on the **“Request to belong to an Institutional Contact”** button. This will redirect you to a small form that will ask you to select the organization you want to join from an organization list. After you select the correct organization, click on **“continue”**, a request will then be created. The Institutional Contact that represents that organization will manually accept or deny your request to join the organization.

ITU BANK ACCOUNT DETAILS:

Name and Address of Bank:	UBS Switzerland AG Case postale 2600 CH 1211 Geneva 2 Switzerland
Beneficiary:	Union International des Telecommunications
Account number:	240-C8108252.2 (USD)
Swift:	UBSWCHZH80A
IBAN	CH54 0024 0240 C810 8252 2
Amount:	75 USD
Payment Reference:	CoE-ARB 26435 – WBS No. P.40592.1.06

4. Other method of payment

If due to national regulations, there are restrictions that do not allow the payment to be made using options 1 & 2 above, please contact the ITU coordinator for further assistance.