



International Telecommunication Union (ITU)
Arab Regional Office (ARO)

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- Arab Administrations of ITU Member States,
- Arab Regulators
- ITU-D Sector Members and Associates
- Academia Institutions
- Regional and International Organizations concerned
- Regional chairs and vice chairs of the Advisory Groups (TSAG, TDAG, RAG) and Study Groups

**Subject: ITU Centers of Excellence Face-to-Face Training Course on “Optical Network Design”
Tunis-Tunisia, 23 – 27 September 2019**

Dear Sir/Madam,

I am pleased to invite your organization to participate in the face-to-face training course on **“Optical Network Design”** to be conducted in Tunis-Tunisia, **23 - 27 September 2019**. This course is organized jointly by the International Telecommunication Union and the Smart Tunisian Technoparks (S2T) as part of the Broadband & Wireless Networks Programme under the auspices of the ITU Centers of Excellence for Arab region.

The training will be delivered in English, French and Arabic.

This training aims to provide the participants with extensive insights and practices about understanding of the optical fiber network design process with knowledge of four key aspects: the components of a fiber network, the design process, the cost process and the design package.

Among other issues related to the training course subject, the following topics will be covered:

- ✓ Describe the function module and network structure of Wave Division Multiplex (WDM) system.
- ✓ Characterize the typical building blocks of a WDM network (amplifier, Dispersion-compensating Module (DCM), optical add-drop multiplexer (OADM), Optical cross-connect (OXC), transponder).
- ✓ Illustrate the main factors involved in WDM network planning, such as power budget, dispersion compensation, Optical Signal to Noise Ratio (OSNR) calculation and nonlinearity.
- ✓ Outline the design process of WDM network.
- ✓ Describe the use of the Data Communication Network (DCN) in optical networking.

This training is designed for engineers, planners, project managers, Information Technology Systems (ITS) and designers of optical fiber distribution systems and anyone working in the high-speed networks. Other institutions and individuals who are interested in having an overview of Optical Network Design are also welcome to participate in this training program

Detailed information on this training course is described in the course outline, which can be downloaded from the ITU Academy Portal at the following link ([click here](#)).

Registration should be made online at the aforementioned link no later than **13 September 2019**. Payment details are specified in the training course outline.

Should you require any further information, Eng. Mustafa Al Mahdi, Programme Administrator of ITU-Arab Regional Office, Email: (mustafa-ahmed.al-mahdi@itu.int) and Mrs. Houda Jarraya, Focal point (S2T), Email: (houda.jarraya@s2t.tn; houda.jarraya@gmail.com) are at your full disposal.

Looking forward to your active participation in this training course.

Yours sincerely,

[Original signed]

Ebrahim Al Haddad
Regional Director