



وزارة البريد والمواصلات السلكية واللاسلكية
والتكنولوجيات والرقمنة-الجزائر
Ministry of Post, Telecommunication,
Technologies and Digitalization-Algeria

ITU-ITSO Annual Regional Training Workshop on "Satellite Communications" for Arab Region

Algiers - Algeria
13-17 October 2019

COURSE OUTLINE

Course Title	ITU/ITSO face-to-face training on Satellite Communications
Course Description	The training aims to provide an in-depth understanding of VSAT systems and protocols in satellite communications. In particular, it will introduce VSAT concepts, satellite communications systems, technologies and protocols. It will also allow participants to assess VSAT systems for deployments into cooperate wide area network solutions.
Course Date	13-17 October 2019
Course Duration	5 days
Registration Deadline	1 October 2019
Training fees	Free
Course Code	19WS24123ARB-E

LEARNING OUTCOMES

Gain an understanding of:

- Basics of satellite communications
- Policy and regulatory guidelines for satellite services
- Network planning and link budget analysis
- VSAT installation and maintenance
- VSAT Equipment and bandwidth procurement
- Radio regulations.

TARGET POPULATION

This training is addressed to regulators and operators in the telecommunication sector. It covers a wide range of issues relating to satellite communications and regulatory issues, including the role of regional and international satellite communications organizations.

COURSE TUTOR/INSTRUCTORS

The course will be tutored by:

- Mr. Edward Musisi, ITSO
- Ms Patrizia Russo, ITU

EVALUATION

The assessment of the participants shall be based on the time spent on the training and the following parameters:

Evaluation Parameter	Weightage
Exam	60%
Attendance	10%
Participation (group work, quizzes)	30%
Total	100%

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

METHODOLOGY

The face-to-face training will include:

- Instructor-led presentations
- Case Studies
- Group Exercises
- Assignments and Quizzes
- Examination

N.B. To carry out the exercises relating to the Radio Regulations, the participants must be equipped with a laptop with Windows as Operating System and with Administrator privileges.

COURSE COORDINATION

Host contact : Mme Hassina LAREDJ Directrice de la Coopération et des Relations Internationales Ministère de la Poste, des Télécommunications, des Technologies et du Numérique 4, Boulevard Krim Belkacem - Alger Tel.: +213 21 73 17 46 Tel/Fax: +213 21 72 37 47 Email address: H.Laredj@mpttn.gov.dz	ITU contact: Eng. Mustafa Al Mahdi Programme Administrator Arab Regional Office-ITU Tel: +202 3537 1777 Mobile: +201141177573 Fax : +202 3537 1888 Email : mustafa-ahmed.al-mahdi@itu.int
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TRAINING SCHEDULE AND CONTENTS

	Day 1 – 13 Oct. 2019	Day 2 – 14 Oct. 2019	Day 3 – 15 Oct. 2019	Day 4 – 16 Oct. 2019	Day 5 – 17 Oct. 2019
09.00-11.00	Registration (09.00-09.30) Opening Session (09.30-10.00) Basics of Satellite Communications: <ul style="list-style-type: none"> • Birth of Satellite • Communication Links • Satellite Orbits • Orbital Positions and Radio Interference • Satellite Lifecycle Management 	Fundamentals of Satellite Communications: <ul style="list-style-type: none"> • Introduction to Satellite Communications • Satellite Network Design • Technology Trends • Satellite Earth Station Components 	Radio Regulations Cont'd: <ul style="list-style-type: none"> • Harmful Interference (SIRRS) • Submission of Comments • Exercise on SpaceCom • Exercise on e-submission 	Link Budget Analysis: <ul style="list-style-type: none"> • Components of a satellite circuit • Digital Communications Chain • Modulation • Chanel Coding • Efficiency • Link Budget Analysis Tools 	VSAT Equipment and Bandwidth Procurement <ul style="list-style-type: none"> • Defining needs • Procuring the VSAT system
11.00-11.30	Health Break	Health Break	Health Break	Health Break	Health Break
11.30-13.30	Basics of Satellite Communications (Cont'd): <ul style="list-style-type: none"> • The Space Segment • The Ground Segment • Services • Digital Video Broadcasting, • Digital Satellite News Gathering • Broadband Internet • Multicast Internet Services 	Radio Regulations Cont'd <ul style="list-style-type: none"> • BRIFIC (Space Services) and Preface • Space Services Website • Receivability of Space Notices and e-submission (Resolution 908) • Cost Recovery for satellite filings • Introduction to BR Space Software and Databases • Installation of BR Software* 	Radio Regulations Cont'd: <ul style="list-style-type: none"> • Capturing of Earth Station for coordination • Creation of Earth Station coordination contours 	Exercise on Link Budget Analysis VSAT Installation and Maintenance	Policy and Regulatory Guidelines for Satellite Services <ul style="list-style-type: none"> • Legal Framework • Key regulatory and licensing trends • Market Entry
13.30-14.30	Lunch Break	Lunch Break	Lunch Break	Lunch Break	Lunch Break
14.30-16.30	Radio Regulations <ul style="list-style-type: none"> • ITU and ITU-R Overview • Coordination procedures for Non-planned space services • Notification and Recording of frequency assignments • Small Satellite Regulations FSS Plan • BSS Plans 	Network Planning Fundamentals: <ul style="list-style-type: none"> • Digital Communication Techniques • Modulation • Satellite Economics • Satellite Network Topologies 	Excursion to Satellite Earth Station (to be arranged and confirmed by Algeria FP)	WRC-19 Preparations <ul style="list-style-type: none"> • ITU-R Study Groups • WRC-19 Agenda items related to Space Services 	General Test Q&A Closing Activities

PARTICIPATION FEES

This course is being offered **free** of charge to participants.

REGISTRATION

ITU Academy portal account

Registration 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/index.php/user/register>.

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/index.php/training-courses/full-catalogue/itu-itso-annual-regional-training-workshop-satellite-communications-arab-region>

Please select “Apply here” and your application will be submitted. It will then be reviewed and either accepted or rejected. ***Please note that seats for this training are limited to 40.***

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