



African Advanced Level Telecommunications Institute
Spectrum Management Training Programme
Online Training on
OM-1 Legal Basis and Regulatory Framework
27 September – 22 October 2021

TRAINING COURSE OUTLINE

COURSE DESCRIPTION

Title	OM-1 Legal Basis and Regulatory Framework
Objectives	To develop an understanding of the overall context and objectives of spectrum management and its practical realization in a complex multi-layered structure of international, regional and national levels. It includes the role and functions of the different stakeholders, the legal framework underpinning all of the interactions and the role and operational principles of authorization processes (licensing) of radio services.
Dates	27 September – 22 October 2021
Duration	4 weeks
Registration deadline	26 September 2021
Training fees	USD 200
Course code	21OI27693MUL-E
Course Domains	<ul style="list-style-type: none">• ITU and its organs• Regulatory Frameworks• History of Radio communication• Computer Aided Spectrum Management
Reference	ITU Handbooks ITU Handbook on Land Mobile (several volumes...) ITU Handbook on Digital Radio-Relay Systems... ITU Handbook on IMT-2000

DESCRIPTION OF THE TRAINING COURSE

This module covers the overall context and objectives of spectrum management and its practical realization in a complex multi-layered structure of international, regional and national levels. It includes the role and functions of the

different stakeholders, the legal framework underpinning all of the interactions and the role and operational principles of authorization processes (licensing) of radio services.

LEARNING OUTCOMES

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

Have knowledge of

- How spectrum management has evolved over the years.
- The structure and balance between national and international bodies in spectrum management.
- The key principles that underpin national and global spectrum management.

An understanding of

- Understand the overall context and objectives of SM and its practical realization in a complex multi-layered structure of international, regional and national levels.
- Understand the role and functions of the different stakeholders involved and the legal framework underpinning all of the interactions.
- Understand the role and operational principles of authorization processes (licensing) of radio services.

They should have the ability to

- Ability to interpret the provisions of ITU Radio Regulations, ITU-R Recommendations and Reports.
- Ability to interpret and update the content of National Frequency Allocation Table e.g. as result of decisions taken at WRCs.
- Ability to organise the national process of new/revised spectrum allocation.

TARGET POPULATION

This training is targeted those who are entering the regulatory environment and are interacting with technologies as operators, developers or managers. It is targeted at those aiming to understand workings of various technologies with a view to developing a general overview of trends.

This may include professionals working in the telecommunications industry, lawyers, regulatory staff across all departments.

Besides that, other institutions and individuals that are dedicated to building their capacity related to new technologies are welcome to participate.

ENTRY REQUIREMENTS

No prior knowledge or qualification in Spectrum Management is required, however it is important for participants to be working for a regulator, or in the ICT/Telecoms sector as a provider or consultant.

TUTORS/INSTRUCTORS

NAME OF TUTOR(S)/INSTRUCTOR(S)	CONTACT DETAILS
Dr John Mpapalika	Email: mpapalika2016@gmail.com Tel: +255762545228

TRAINING COURSE CONTENTS

The topics covered in this module are:

1. Historical background and evolution of spectrum management
 - The history
 - Economics and convergence (examples and informative material)
2. ITU's role and structure
3. ITU Radiocommunication Sector
 - Introduction
 - Study Groups
 - Outputs
4. ITU Constitution and Convention, World Radiocommunication Conferences
 - Constitution
 - Convention
 - WRC
5. ITU Radio Regulations
 - Scope and structure of the Radio Regulations.
6. International regional cooperation structures
 - Introduction
 - APT
 - ASMG
 - ATU
 - CEPT
 - CITELE
 - RCC
 - EU
 - Case study – the HCM agreement
7. National legal frameworks relevant to spectrum management
 - Introduction
 - UK - Ofcom
 - US – FCC
8. National Frequency Allocation Tables
 - General principles of a FAT
 - National experience: UK
9. National Regulatory Authorities: typical structures and functioning
 - General information
 - Case studies of selected NRAs
10. Other national stakeholders involved in spectrum management
 - Introduction
 - Network operators

- Broadcasters
- Manufacturers
- Users of licence-exempt spectrum
- Amateurs
- Governments
- Innovators and entrepreneurs
- Academics

11. Frequency use authorization processes for various radio services

- Introduction – why authorisation is needed
- Licensed versus unlicensed
- Unlicensed authorisation
- Licensed overview
- Command & Control
- Auctions
- Incentive pricing
- Length of licence terms
- Additional licence conditions
- Other approaches – DSA

12. Overview of software tools and automated management systems

- Introduction
- ITU and CEPT tools
- Commercial Automated Spectrum Management Systems

TRAINING SCHEDULE AND CONTENTS / AGENDA

Week	Activity	Exercises and Interactions
Week 1 <ul style="list-style-type: none"> • Historical background and evolution of spectrum management • ITU’s role and structure • ITU Radiocommunication Sector 	Read week 1 Materials and references Participate in the Forum Topic 1 Take a short quiz	Forum Topic 1: Discuss ITU impact on local spectrum Management regimes. Live lecture and discussion: Monday and Wednesday Quiz: Friday
Week 2 <ul style="list-style-type: none"> • ITU Constitution and Convention, World Radiocommunication Conferences • ITU Radio Regulations 	Read week 2 Materials and references Participate in the Forum Topic 2 Take a short quiz	Forum Topic 2: How do the RRs apply to your day to day business as a regulator? And how often do they influence your work? Live lecture and discussion: Monday and Wednesday Quiz: Friday

<ul style="list-style-type: none"> International regional cooperation structures 		
<p>Week 3</p> <ul style="list-style-type: none"> National legal frameworks relevant to spectrum management National Frequency Allocation Tables National Regulatory Authorities: typical structures and functioning 	<p>Read week 3 Materials and references</p> <p>Participate in the Forum Topic 3</p> <p>Take a short quiz</p>	<p>Forum Topic 3: Describe the development of Spectrum Management in your country. What legislation if necessary was put in place?</p> <p>Live lecture and discussion: Monday and Wednesday</p> <p>Quiz: Friday</p>
<p>Week 4</p> <ul style="list-style-type: none"> Other national stakeholders involved in spectrum management Frequency use authorization processes for various radio services Overview of software tools and automated management systems 	<p>Read week 4 Materials and references</p> <p>Participate in the Forum Topic 4</p> <p>Take a short quiz</p>	<p>Forum Topic 4: To what extent is the automation of Spectrum Management processes a good.</p> <p>Live lecture and discussion: Monday and Wednesday</p> <p>Quiz and end of course assignment submission: Friday</p>

METHODOLOGY (Didactic approach)

- Instructor-Led online learning
- Forum discussions
- Self-assessed Quizzes
- Optional live lectures and discussion through ZOOM every Monday and Wednesday from 1500 Hours to 1700 Hours EAT.

EVALUATION AND GRADING

The evaluation is based on:

- Participation in all 4 Forums (10%)
- Quiz week 1 (10%)
- Quiz week 2 (10%)
- Quiz week 3 (10%)

- Quiz week 4 (10%)
- Written assignment (50%)

Participants should score an overall mark of 60% to receive ITU Certificate.

TRAINING COORDINATION

<p>AFRALTI Coordinator:</p> <p>Jonathan Mwakijele Head of Management, Policy and Regulatory Unit African Advanced Level Telecommunications Institute (AFRALTI), Nairobi, Kenya. Tel : +254 718 860 897 Email: Jmwakijele@afralti.org</p>	<p>ITU Coordinator:</p> <p>Emmanuel Niyikora Programme Officer ITU Area Office for West Africa, Dakar, Senegal. Tel : +250 788312939 Email: emmanuel.niyikora@itu.int</p>
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REGISTRATION AND PAYMENT

Registration on ITU Academy Portal

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>.

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/sntp-om-1-legal-basis-and-regulatory-framework-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 200 per participant is applied for this training. Payment should be made via the online system using the link mentioned above for training registration <https://academy.itu.int/training-courses/full-catalogue/sntp-om-1-legal-basis-and-regulatory-framework-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.**

3. Group payment

Should you wish to pay for more than one participant using bank transfer and need one invoice for all of them, create an account as **Institutional Contact**. **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.

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

ITU BANK ACCOUNT DETAILS:

Name and Address of Bank:	UBS Switzerland AG Case postal 2600 CH 1211 Geneva 2 Switzerland
Beneficiary:	Union Internationale des Télécommunications
Account number:	240-C8108252.2 (USD)
Swift:	UBSWCHZH80A
IBAN	CH54 0024 0240 C810 8252 2
Amount:	USD 200
Payment Reference:	21OI27693MUL-E- P.40635.1.01