



Training course outline

ITU and African Advanced Level Telecommunications Institute

Title	OM-1 Legal Basis and Regulatory Framework of Spectrum Management
Modality	Online instructor led
Dates	1 – 26 August 2022
Duration	4 weeks
Registration deadline	31 July 2022
Training fees	USD 200
Description	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.
Course code	22OI500018MUL-E-D

1. LEARNING 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.

2. 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.

3. 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.

4. 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.

5. TUTORS/INSTRUCTORS

NAME OF TUTOR(S)/INSTRUCTOR(S)	CONTACT DETAILS
Dr. John Mpapalika	Email: mpapalika2016@gmail.com Tel: +255762545228
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6. 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

7. TRAINING COURSE SCHEDULE

Week / Topic	Activity	Exercises and Interactions
<p>Week 1</p> <ul style="list-style-type: none"> Historical background and evolution of spectrum management ITU's role and structure <p>ITU Radiocommunication Sector</p>	<p>Read week 1 Materials and references</p> <p>Participate in the Forum Topic 1</p> <p>Take a short quiz</p>	<p>Forum Topic 1: Discuss ITU impact on local spectrum Management regimes.</p> <p>Live lecture and discussion: Monday and Wednesday</p> <p>Quiz: Friday</p>
<p>Week 2</p> <ul style="list-style-type: none"> ITU Constitution and Convention, World Radiocommunication Conferences ITU Radio Regulations <p>International regional cooperation structures</p>	<p>Read week 2 Materials and references</p> <p>Participate in the Forum Topic 2</p> <p>Take a short quiz</p>	<p>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?</p> <p>Live lecture and discussion: Monday and Wednesday</p> <p>Quiz: Friday</p>
<p>Week 3</p> <ul style="list-style-type: none"> National legal frameworks relevant to spectrum management National Frequency Allocation Tables <p>National Regulatory Authorities: typical structures and functioning</p>	<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 	<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 good?</p> <p>Live lecture and discussion: Monday and Wednesday</p>

various radio services		Quiz and end of course assignment submission: Friday
Overview of software tools and automated management systems		

8. 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.

9. 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 at least 60% to receive ITU Certificate.

10. TRAINING COURSE COORDINATION

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