



African Advanced Level Telecommunications Institute (AFRALTI)

Spectrum Management Training Programme

**Online Training on
OM5 - Spectrum Planning and Policies for Wireless Innovation**

6 September – 1 October 2021

TRAINING COURSE OUTLINE

COURSE DESCRIPTION

Title	OM5 - Spectrum Planning and Policies for Wireless Innovation
Objectives	This module will provide participants with an in-depth understanding of theories, tools and practices involved in spectrum management strategic planning and policy developments that are aligned with forward-looking analytical spectrum management approaches enabling wireless innovation.
Dates	6 September – 1 October 2021
Duration	4 weeks
Registration deadline	5 September 2021
Training fees	USD 200
Course code	21OI27715MUL-E
Course Domains	<ul style="list-style-type: none">• Domain 1. Spectrum Management strategic planning• Domain 2. Spectrum Management policy developments
Reference	ITU ICT Regulation Toolkit: Module V – Spectrum Management, Section 5 on Spectrum Pricing (revised) ITU Handbook National Spectrum Management ITU World Radiocommunication Seminar 2016 Spectrum Policy for the 21st Century – Improving International Spectrum Management Policies and Framework, US Dept. Of Commerce, Pp. 58-66 Establishing the First Radio Spectrum Policy Programme, European Commission, Articles 1-12, Pp. 13-20 A Policy Framework for Spectrum Allocation in Mobile Communications, Federal Communications Law Journal

DESCRIPTION OF THE TRAINING COURSE

This module will cover an in-depth understanding of theories, tools and practices involved in spectrum management strategic planning and policy developments that are aligned with forward-looking analytical spectrum management approaches enabling wireless innovation.

LEARNING OUTCOMES

It is expected that upon completion of the training sessions, participants will achieve learning outcomes:

Knowledge:

- Knowledge of the international policy setting institutional framework and national variations.
- Knowledge of the theoretical foundations for modern spectrum policy
- Knowledge of major spectrum management planning and policy-making practices and processes.

Understanding:

- Understanding the principles and objectives associated with spectrum management in the 21st century.
- Understanding the policies associated with how Spectrum is currently allocated and used.
- Understanding the fundamental role spectrum planning has in determining current and future use of spectrum
- Understanding the key policy initiatives associated with wireless innovation.

Special skills:

- Ability to interpret SM policy issues connected with promoting innovation in spectrum utilization.
- Ability to differentiate amongst various strategic planning and demand forecasting tools for spectrum management.
- Ability to identify circumstances where each or a combination of these tools might be most appropriate.

Assessment Criteria:

- Understanding and use of knowledge communicated during the course.
- Demonstration of ability to use spectrum planning tools to suit different requirements and situations.
- Quality of work performed by participants.

TARGET POPULATION

This training is targeted at ICT regulators, government organisations, telecommunications and broadcasting companies, internet service providers, and academia, who are aiming at understanding the aspects of spectrum management, focusing on spectrum strategic planning and policy developments in wireless innovations.

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

Besides that, other institutions and individuals that are dedicated to building their capacity related to radio spectrum strategic planning and policy developments that are aligned with forward-looking analytical spectrum management approaches enabling wireless innovation using new technologies are welcome to participate.

TUTORS/INSTRUCTORS

NAME OF TUTOR(S)/INSTRUCTOR(S)	CONTACT DETAILS
Eng. Vitalis Olunga	Email: volunga@gmail.com Tel: +254 722 510 077
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TRAINING COURSE CONTENTS

1. Framework for Strategic Planning and Policy Development
2. Theories Influencing Choices in Development of Spectrum Policy and Strategic Planning
3. Spectrum Policy Debate – What is Driving Reform Initiatives and Addressing Change and Issues Framework
4. Spectrum Management Policy Principles and Objectives – Survey and Discussion
5. Spectrum Policy Analytical Framework and Review
6. Policy and Planning – Methods and Techniques – Spectrum Master Plans and Band Planning
7. Understanding Current Use and Limitations – International and National Planning for Allocations and Standards
8. Understanding Future use of Spectrum
9. Spectrum Planning Case Study
10. Spectrum Forecasting of Future Use – Methods and Techniques
11. Spectrum Policies for Wireless Innovation – Part I Regulatory Impact Assessment Guideline
12. Spectrum Policies for Wireless Innovation – Part II Allocations and Assignment
13. Spectrum Policies for Wireless Innovation – III Spectrum Sharing, Infrastructure Sharing, MVNOs
14. Spectrum Policies for Wireless Innovation – IV Case Study
15. Course Summary Review and Key Learnings

TRAINING SCHEDULE AND CONTENTS / AGENDA

Week / Learning Topic (Session)	Activity	Exercises and Interactions
Week 1 1. Framework for Strategic Planning and Policy Development 2. Theories Influencing Choices in Development of Spectrum Policy and Strategic Planning 3. Spectrum Policy Debate – What is Driving Reform Initiatives and Addressing Change and Issues Framework 4. Spectrum Management Policy Principles and Objectives – Survey and Discussion	Read Topic 1 & 2 Materials and references, and presentations for sessions 1 and 2 before attempting Quiz 1. Read Topic 3 & 4 Materials and references, and presentations for sessions 2 and 3 before attempting Quiz 2. Participate in week 1 forum.	Forum: Spectrum Management Theories, Policy Principles and Objectives. Attempt Quiz 1 on Wednesday covering course materials from session 1 and 2. Attempt Quiz 2 on Friday covering course materials from session 3 and 4
	Live Lecture and Discussion	Live Lecture and Discussion through ZOOM Monday and Wednesday, 15:00 Hours to 17:00 Hours EAT

<p>Week 2</p> <p>5. Spectrum Policy Analytical Framework and Review</p> <p>6. Policy and Planning – Methods and Techniques – Spectrum Master Plans and Band Planning</p> <p>7. Understanding Current Use and Limitations – International and National Planning for Allocations and Standards</p> <p>8. Understanding Future use of Spectrum</p>	<p>Read Topic 5 & 6 Materials and references, and presentations for sessions 5 and 6 before attempting Quiz 3.</p> <p>Read Topic 7 & 8 Materials and references, and presentations for sessions 7 and 8 before attempting Quiz 4.</p> <p>Participate in week 2 forum.</p>	<p>Forum : Spectrum Policy Planning and Evaluation</p> <p>Analytical Framework and Review; Policy and Planning Methods and Techniques.</p> <p>Attempt Quiz 3 on Wednesday covering course materials from session 5 and 6.</p> <p>Attempt Quiz 4 on Friday covering course materials from session 7 and 8.</p>
	<p>Live Lecture and Discussion</p>	<p>Live Lecture and Discussion through ZOOM</p> <p>Monday and Wednesday, 15:00 Hours to 17:00 Hours EAT</p>
<p>Week 3</p> <p>9. Spectrum Planning Case Study</p> <p>10. Spectrum Forecasting of Future Use – Methods and Techniques</p> <p>11. Spectrum Policies for Wireless Innovation – Part I Regulatory Impact Assessment Guideline</p> <p>12. Spectrum Policies for Wireless Innovation – Part II Allocations and Assignment</p> <p>13. Spectrum Policies for Wireless Innovation – III Spectrum Sharing, Infrastructure Sharing, MVNOs</p>	<p>Review Case Study 9 and submit the report (2-3) prior to session 10.</p> <p>Read Topic 10 & 11 Materials and references, and presentations for sessions 10 and 11 before attempting Quiz 5.</p> <p>Read Topic 12 & 13 Materials and references, and presentations for sessions 12 and 13 before attempting Quiz 6.</p> <p>Starting working on end course assignment.</p>	<p>Case Review Stage 1: Review Spectrum Planning Case Study</p> <p>Forum :</p> <p>Methods and Techniques for Spectrum Forecasting for Future Use; Regulatory Impact Assessment Guideline, Spectrum Allocations and Assignment,</p> <p>Attempt Quiz 5 on Wednesday covering materials from session 10 and 11.</p> <p>Attempt Quiz 6 on Friday covering materials from session 12 and 13.</p>
	<p>Live Lecture and Discussion</p>	<p>Live Lecture and Discussion through ZOOM</p> <p>Monday and Wednesday, 15:00 Hours to 17:00 Hours EAT</p>
<p>Week 4</p> <p>14. Spectrum Policies for Wireless Innovation – IV Case Study</p> <p>15. Course Summary Review and Key Learnings</p>	<p>Review Case Study Topic 14 on Spectrum Policies and Innovation in session 14.</p> <p>Read Topic 14 Materials and references, and presentations for case study sessions 14.</p> <p>Participate in Forum for week 4.</p>	<p>Forum:</p> <p>Spectrum Allocation and Assignment, Spectrum Sharing, Infrastructure Sharing, MVNO</p>

	Participate in course summary review as highlighted in session 15. Submit end of course assignment.	Case Study Stage 2: Spectrum Policies for Wireless Innovation – IV Case Study Course Summary Review and Key Learnings Assignment submission on Friday
	Live Lecture and Discussion	Live Lecture and Discussion through ZOOM Monday and Wednesday, 15:00 Hours to 17:00 Hours EAT

METHODOLOGY

- Online Self-paced learning
- Live lectures and discussion through ZOOM every Monday and Wednesday from 15:00 Hours to 17:00 Hours.

EVALUATION

Participants should score an overall mark of 60%. The evaluation is based on:

- Participation in all the four weekly Forums (10%)
- Quizzes in week 1 (10%)
- Quizzes in week 2 (10%)
- Quizzes in week 3 (10%)
- Practical Exercises (10%)
- Written assignment (50%)

TRAINING COORDINATION

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

Registration on ITU Academy Portal

Please note that 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-om5-spectrum-planning-and-policies-wireless-innovation>

- 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. It is encouraged to make payment via the online system using the link mentioned above for training registration <https://academy.itu.int/training-courses/full-catalogue/sntp-om5-spectrum-planning-and-policies-wireless-innovation>

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:

- 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.
- 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:	International Telecommunications Union
Account number:	240-C8108252.2 (USD)
Swift:	UBSWCHZH80A
IBAN	CH54 0024 0240 C810 8252 2
Amount:	USD 200
Payment Reference:	210I27715MUL-E- P.40635.1.01