



Spectrum Management Training Programme

Online Training on

OM5 - Spectrum Planning and Policies for Wireless Innovation

5– 30 April 2021

TRAINING OUTLINE

COURSE DESCRIPTION

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| Title | 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 | 5 – 30 April 2021 |
| Duration | 4 weeks |
| Registration deadline | 4 April 2021 |
| Training fees | USD 200 |
| Course code | 21OI26544MUL-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 |

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 |
| Jonathan P. Mwakijele | Email: Jmwakijele@afraiti.org Tel: +254 718 860 897 |

EVALUATION

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

- Participation in all the 4 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 SCHEDULE AND CONTENTS / AGENDA

Agenda (for online training)

| Week | Activity | Exercises and Interactions:-Learning Topics: |
|--------|---|--|
| Week 1 | <p>Introduction</p> <p>Spectrum Management Strategic Planning and Polies for Wireless Innovation</p> <p>Online – Self-Paced.</p> <p>Read presentations for session 1 and before attempting Quiz 1.</p> <p>Read presentations for session 3 and 4 before attempting Quiz 2.</p> <p>Participate in week 1 forum.</p> | <ul style="list-style-type: none"> • Framework for Strategic Planning and Policy Development • Theories Influencing Choices in Development of Spectrum Policy and Strategic Planning • Spectrum Policy Debate – What is Driving Reform Initiatives and Addressing Change and Issues Framework • Spectrum Management Policy Principles and Objectives – Survey and Discussion • Spectrum Policy Analytical Framework and Review <p>Attempt Quiz 1 on Wednesday covering course materials from session 1 and 2.</p> <p>Attempt Quiz 2 on Friday covering course materials from session 3 and 4.</p> |
| | Live Lecture and Discussion | <p>Live Lecture and Discussion through ZOOM</p> <p>Wednesday, 15:00 Hours to 17:00 Hours EAT</p> |
| Week 2 | <p>Spectrum Policy and Planning – Methods and Techniques – Spectrum Master Plans and Band Planning:</p> <p>Current Use and Limitations of Spectrum;</p> <p>Understand Future Use of Spectrum</p> <p>Read presentations for session 5 and 6 before attempting Quiz 3.</p> <p>Read presentations for session 7 and 8 before attempting Quiz 4.</p> <p>Review case studies in session 9.</p> | <ul style="list-style-type: none"> • Policy and Planning – Methods and Techniques – Spectrum Master Plans and Band Planning • Understanding Current Use and Limitations – International and National Planning for Allocations and Standards • Understanding Future use of Spectrum • Spectrum Planning Case Study • Spectrum Forecasting of Future Use – Methods and Techniques <p>Attempt Quiz 3 on Wednesday covering course materials from session 5 and 6.</p> |

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| | Participate in week 2 forum. | Attempt Quiz 4 on Friday covering course materials from session 7 and 8. |
| | Live Lecture and Discussion | Live Lecture and Discussion through ZOOM Wednesday, 15:00 Hours to 17:00 Hours EAT |
| Week 3 | Spectrum Policies for Wireless Innovation: - Regulatory Impact Assessment Guidelines; Allocation and Assignment; Spectrum Sharing, Infrastructure Sharing, MVNOs. Read presentations for session 10 and 11 before attempting Quiz 5. Read presentations for session 12 and 13 before attempting Quiz 6. Starting working on end course assignment. | <ul style="list-style-type: none"> • Spectrum Policies for Wireless Innovation – Part I Regulatory Impact Assessment Guideline • Spectrum Policies for Wireless Innovation – Part II Allocations and Assignment • Spectrum Policies for Wireless Innovation – III Spectrum Sharing, Infrastructure Sharing, MVNOs • Spectrum Policies for Wireless Innovation – III Spectrum Sharing, Infrastructure Sharing, MVNO <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> |
| | Live Lecture and Discussion | Live Lecture and Discussion through ZOOM Wednesday, 15:00 Hours to 17:00 Hours EAT |
| Week 4 | Spectrum Policies for Wireless Innovation-Case Studies; Course Summary Review Key Learnings Review case studies in session 14 Participate in Forum for week 4. Participate in course summary review as highlighted in session 15. Submit end of course assignment. | <ul style="list-style-type: none"> • Spectrum Policies for Wireless Innovation – IV Case Study • Course Summary Review and Key Learnings <p>Assignment submission on Friday</p> |
| | Live Lecture and Discussion | Live Lecture and Discussion through ZOOM Wednesday, 15:00 Hours to 17:00 Hours EAT |

METHODOLOGY

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

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| 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/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/training-courses/full-catalogue/sntp-om-5-spectrum-planning-and-policies-wireless-innovations>
- You can also register by finding your desired course in our training catalogue <https://academy.itu.int/index.php/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 at: <https://academy.itu.int/training-courses/full-catalogue/sntp-om-5-spectrum-planning-and-policies-wireless-innovations>

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:

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| 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: | 210I26544MUL-E - P.40635.1.01 |