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**Spectrum Management Training Programme**  
**Online Training on**  
**Wireless Telecommunications Technologies (2<sup>nd</sup> Intake)**  
**30 November-24 December 2020**

**TRAINING OUTLINE**

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**COURSE DESCRIPTION**

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Title	<b>Wireless Telecommunications Technologies (2<sup>nd</sup> intake)</b>
Method of delivery	Online
Objectives	<p>Its aim is to provide a comprehensive view of some of the most dynamically developing business areas of radiocommunications. The course aims at describing the technologies and their lines of development which are present in the world in the given field.</p> <p>The independent course provides high-level technical knowledge and it is also connected to other modules.</p>
Dates	30 November-24 December 2020
Duration	4 weeks
Registration deadline	2 December 2020
Training fees	USD 200
Course code	200I26272MUL-E
Course Domains	<ul style="list-style-type: none"><li>• Domain 1. Fixed Services</li><li>• Domain 2. Mobile Services</li><li>• Domain 3. SRDs</li><li>• Domain 4. Satellite Services</li><li>• Domain 5. TV and Broadcasting</li></ul>
Reference	<p>ITU Handbooks ITU Handbook on Land Mobile (several volumes...)</p> <p>ITU Handbook on Digital Radio-Relay Systems...</p> <p>ITU Handbook on IMT-2000</p>

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## LEARNING OUTCOMES

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

Have knowledge of

- Basic technology principles of broadcasting-, mobile-, fixed-, satellite services and SRD applications.
- Becoming familiar with frequency bands used by these services, including why these bands are used for the given services.
- Developmental trends of radiocommunications services and technologies.

An understanding of

- Conditions of implementation and operation of the presented services and also their business and regulatory environment.
- Role of regulation for successful development of radiocommunications services.

They should have the ability to

- to interpret the provisions of ITU Radio Regulations in respect of specific radiocommunications services
- to use the international and national rules and specifications (e.g. National Frequency Allocation Table)
- to interpret essential business development criteria and trends

## TARGET POPULATION

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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.

## TUTORS/INSTRUCTORS

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NAME OF TUTOR(S)/INSTRUCTOR(S)	CONTACT DETAILS
Dr John Mpapalika	Email: <a href="mailto:mpapalika2016@gmail.com">mpapalika2016@gmail.com</a> Tel: +255762545228
Jonathan Mwakijeje	Email: <a href="mailto:Jmwakijeje@afralti.org">Jmwakijeje@afralti.org</a> Tel: +254718860897

## EVALUATION

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Participants should score an overall mark of 60%. 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%)

## TRAINING SCHEDULE AND CONTENTS / AGENDA

### Agenda (for online training)

Week / Topic	Activity	Exercises and Interactions
Week 1 FIXED SERVICES	Read part 1 Materials and references Participate in 1 chat Make comments on the forum Take a short quiz	<b>Forum topic 1:</b> Interference and RF Mitigation  <b>Quiz 1:</b> Friday from 17:00hrs – 18:00hrs
Week 2 MOBILE SERVICES	Read part 2 Materials and references Participate in 1 chat Make comments on the forum Take a short quiz	<b>Forum topic 2:</b> What is the future of mobile voice services in light of the proliferation of OTP services?  <b>Quiz 2:</b> Friday from 17:00hrs – 18:00hrs
Week 3 SRDs and SATELLITE services	Read part 2 Materials and references Participate in 1 chat Make comments on the forum Take a short quiz	<b>Forum topic 3:</b> Discuss the trends in Satellite services and whether the increase in Fibre ring deployments poses a threat to their existence.  <b>Quiz 3:</b> Friday from 17:00hrs – 18:00hrs
Week 4 TV AND BROADCASTING SERVICES	Read part 2 Materials and references Participate in 1 chat Make comments on the forum Take a short quiz	<b>Forum topic 4:</b> Digital Migration and its impact on coverage in Developing countries. <b>Quiz 4:</b> Friday from 17:00hrs – 18:00hrs <b>Assignment:</b> Must be completed on the last day of the course

### METHODOLOGY

- Instructor-Led online learning
- Optional live lectures and discussions will be conducted on **Wednesday and Thursday between 11:00 Hours to 1300 Hours EAT/Nairobi Time for 4 weeks.**

### TRAINING COORDINATION

<p><b>Training Coordinator:</b> Jonathan Mwakijele Head of Management, Policy and Regulatory Unit African Advanced Level Telecommunications Institute (AFRALTI)  Tel : +254718860897 Email: <a href="mailto:Jmwakijele@afralti.org">Jmwakijele@afralti.org</a></p>	<p><b>ITU Coordinator:</b> Emmanuel Niyikora Programme Officer ITU Area Office for West Africa, Dakar Tel : +250 788312939 Email: <a href="mailto:emmanuel.niyikora@itu.int">emmanuel.niyikora@itu.int</a></p>
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## REGISTRATION AND PAYMENT

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### 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-om3-wireless-telecommunications-technologies-2nd-intake>
- 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-om3-wireless-telecommunications-technologies-2nd-intake>

#### 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](mailto: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:	200I26272MUL-E - P.40635.1.01