



Training course outline

ITU and African Advanced Level Telecommunications Institute

Title	SMTP EM1.2 Enforcement and Type Approval of Equipment
Method of delivery	Online Instructor led
Dates	1 – 26 August 2022
Duration	4 weeks
Registration deadline	31 July 2022
Training fees	USD 200
Description	The module will cover (1) the role of enforcement in Spectrum Management (SM) activities, (2) type and scope of application of the legal and practical tasks related with enforcement, and (3) role and importance of standardising radio interfaces and national type approval of radio equipment.
Course code	21OI500080MUL-E

1. LEARNING OBJECTIVES

The aim of this module is to convey the knowledge and understanding of: (1) the role of enforcement in Spectrum Management (SM) activities, (2) type and scope of application of the legal and practical tasks related with enforcement, and (3) role and importance of standardising radio interfaces and national type approval of radio equipment.

2. LEARNING OUTCOMES

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

Have knowledge of

- Legal basis for Enforcement in SM operations
- Typical structure and tasks of an enforcement area in SM organisational structure
- Tools for enforcement in SM: The Spectrum Monitoring Network and On-Site Inspections
- Different regimes of Type Approval

An understanding of

- Importance and need of enforcement for interference control and for fulfilment of overall SM objectives
- Relationship between enforcement and various types of regulations, such as national (such as NFAT and

- license conditions), international agreements (such as ITU RR and regional agreements)
- Using facilities of the monitoring network and inspection functions for enforcement purposes
- The need for type approval of equipment and its procedures

They should have the ability to

- Operate the tools used in On-Site inspections
- Verify technical parameters for different services
- Develop a plan for On-Site Inspection

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 Enforcement and Type Approval of Equipment 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. Students in the Engineering or ICT related courses could also be considered.

5. TUTORS/INSTRUCTORS

NAME OF TUTOR(S)/INSTRUCTOR(S)	CONTACT DETAILS
Eng. Edith Roseline Nginya Njeru	Email: Roseline.njeru@gmail.com Tel: +254 797 504 957
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6. TRAINING COURSE CONTENTS

The topics covered in this module are:

S/n	Topic
1	The Role of Enforcement and technical verification in SM
2	Radio Monitoring procedures and its relation with enforcement
3	(Inter)national regulations on Type Approval of equipment
4	Legal issues concerning Enforcement
5	Documentation and requisites for Type Approval (some examples of different countries)
6	Regulatory Bodies for Type Approval
7	Inspection procedures and technical rules for Radio services
8	Power measurement and technical parameters' on site verification
9	Interference analysis and measurement

10	Calibration of equipment for on-site visits
11	Human exposure to EMF: regulation and measurement procedures

7. TRAINING COURSE SCHEDULE

Agenda (for online training)

Week / Topic	Activity	Exercises and Interactions
Week 1 <ul style="list-style-type: none"> • The Role of Enforcement and technical verification in SM • Radio Monitoring procedures and its relation with enforcement • (Inter)national regulations on Type Approval of equipment 	Read week 1 Materials and references Participate in Forum Topic 1 Attempt Quiz for week 1	Forum Week 1 Live Lecture and Discussion: Monday and Wednesday Quiz: Friday
Week 2 <ul style="list-style-type: none"> • Legal issues concerning Enforcement • Documentation and requisites for Type Approval (some examples of different countries) • Regulatory Bodies for Type Approval 	Read week 2 Materials and references Participate in Forum Topic 2 Attempt Quiz for week 2	Forum Week 2 Live Lecture and Discussion: Monday and Wednesday Quiz: Friday
Week 3 <ul style="list-style-type: none"> • Inspection procedures and technical rules for Radio services • Power measurement and technical parameters' on site verification • Interference analysis and measurement 	Read week 3 Materials and references Participate in Forum Topic 3 Attempt Quiz for week 3 Starting working on end course assignment	Forum Week 3 Live Lecture and Discussion: Monday and Wednesday Quiz: Friday
Week 4 <ul style="list-style-type: none"> • Calibration of equipment for on-site visits 	Read week 2 Materials and references Participate in Forum 4	Forum Week 4

<ul style="list-style-type: none"> • Human exposure to EMF: regulation and measurement procedures 	<p>Attempt Quiz for week 4</p> <p>Submit end of course assignment</p>	<p>Live Lecture and Discussion: Monday and Wednesday</p> <p>Quiz: Friday</p> <p>Assignment: Friday</p>
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8. METHODOLOGY (Didactic approach)

The course is instructor led. Course materials such as PowerPoint slides will be posted at the ITU Academy. Participants have to study each week, participate in scheduled activities and undertake self-assessments. Participants will reinforce their understanding of the topics studied by drawing on their specific environments and are encouraged to consult with experienced colleagues who are working on a relevant topic. The following methods will be used for this course:

- Self-study of PPTs and reference materials
- Instructor led presentations and discussions through ZOOM on Monday and Wednesday from 1500 Hours to 1700 Hours EAT
- Forum discussions through the ITU Academy portal

9. EVALUATION AND GRADING

The evaluation is based on:

- Participation in all four (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

<p>AFRALTI Coordinator:</p> <p>Jonathan Mwakijele, Head of Training Department, 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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