



ITU Online Regional Training Workshop on Spectrum Monitoring for the Arab Region

From 09 to 12 November 2020, 10:00 – 13:30 Cairo Time

Concept Note

Objectives

Spectrum monitoring is an essential tool for spectrum management because of its ability to monitor and take measurements of signals; detect and identify unauthorized stations; determine station locations for further enforcement actions; and identify the source of harmful interference.

The overall objective of this capacity-building workshop is to provide insights on the role, function and basic techniques of spectrum monitoring, and to have an understanding of the purpose and capabilities of different types of spectrum monitoring equipment as well as the essential spectrum monitoring operations and measurements. It will also discuss the Integration of an automated spectrum management and spectrum monitoring system and the use of monitoring for Interference handling.

Furthermore, it will provide an overview on the ITU-R Handbook on Spectrum Monitoring, ITU-R Recommendations and Reports, ITU BR monitoring programmes, in addition to the ITU Academy Spectrum Management Training Program (SMTP) module on spectrum monitoring.

Draft Program

Session 1 : Introduction to Spectrum Monitoring

The session aims to define the spectrum monitoring process and indicate the purpose of it. It will also indicate the National spectrum goals and the relation between spectrum monitoring and spectrum management, as well as to provide an overview on the ITU BR monitoring programmes.

- Role of Monitoring in the Spectrum Management Process; by Mr. Ayman Hamdy, ITU Expert
- Presentation of the ITU BR monitoring programmes by Mr. Ben Ba, BR, ITU
- Frequency Band Occupancy; by Mr. Ayman Hamdy, ITU Expert
- Frequency Channel Occupancy; by Mr. Ayman Hamdy, ITU Expert



Session 2 : Types of Monitoring Stations

The session aims to explain the difference between all types of monitoring stations, indicating the purpose of each type and the advantage of each one over the others and the conditions for operating each type. It also aims to discuss the automation of monitoring system.

- Monitoring Equipment; by Mr. Ayman Hamdy, ITU Expert
- Monitoring Operation; by Mr. Ayman Hamdy, ITU Expert

Session 3 : Monitoring Measurements

The session aims to provide overview on the spectrum monitoring measurements, explain what is the spectrum analyzer, its theory, specifications and features and what measurements do we make with it. It also aims at addressing the EFM measurements to assess the human exposure to EMF.

- Spectrum Analyzer overview; by Mr. Ayman Hamdy, ITU Expert
- EMF Measurements to assess human exposure; by TBD

Session 4 : Direction Finding system

This session aims to discuss the different DF techniques, principles and the factors affected DF performance, ITU recommendation for On-site accuracy measurements of a fixed direction finder system.

Session 5 : Evolution of spectrum monitoring

- Presentation of some advanced spectrum monitoring techniques and applications to respond to the rapid development of new radiocommunication systems; by Mr. Ayman Hamdy, ITU Expert
- Presentation of the on-going studies within ITU-R WP 1C; by Philippe Aubineau, BR, ITU

Session 6 : Training summary

Beneficiaries:

This workshop is designed to address mid to senior level management from policy makers, regulators, corporate executives and managers undertaking spectrum management responsibilities in their respective organizations and especially its strategic managers who have spectrum monitoring responsibilities in their organizations.

How to get involved

All information on registration and other related information can be found on the following link:
<https://www.itu.int/en/ITU-D/Regional-Presence/ArabStates/Pages/Events/2020/SM/SM.aspx>

For further information, please contact:

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