



Spectrum Monitoring Training

Continual technological development causes changes in accepted practices and therefore, it is important to stay up to date with the latest innovations.

The first step in successful spectrum monitoring starts with a solid foundation in electronic communication techniques. GEW provides experienced and knowledgeable trainers that deliver an essential background required in the field of spectrum monitoring.

The training course provides operators with the key knowledge and skills that they need to perform their tasks. Further benefits include:

- Learn to navigate regulatory requirements demands
- Cultivate the skills you need to effectively manage and monitor the electromagnetic spectrum
- Hands-on practical experience in using direction finding and monitoring equipment
- Obtain competency certificate on completion of course
- Learn the fundamentals of Electromagnetic Compatibility (EMC) testing

Who Should Attend

- Radio spectrum technicians
- Communications Engineers
- Staff of spectrum regulatory authorities
- Spectrum managers, regulators and policy makers
- Persons with a key interest in spectrum monitoring and management.

Course Duration

The basic course is presented over a period of three days. A one day EMC Fundamentals course can be booked additionally which is presented on the fourth day.

Location

The course is presented at modern conference facilities in Cape Town, South Africa.

Talk to us

Please contact us for information on course dates and pricing:

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Radio Spectrum Monitoring and Measurement

Course participants will learn the concepts and methodologies employed in various spectrum monitoring and direction finding systems as well as the role of spectrum management.

ITU-R Measurements

This course module is devoted to regulatory issues and measurements according to ITU-R specifications. The participants will be able to understand and apply the measurement techniques required to comply with ITU-R recommendations.

Occupancy Measurements

Course participants will learn the principles of Frequency Band Occupancy (FBO) and Frequency Channel Occupancy (FCO) measurements and its contribution to the spectrum monitoring and spectrum management processes.

Measurement System Training

A hands-on practical course module that teaches participants the technical operation of Direction Finding & Monitoring systems. Practical training is provided for fixed, mobile and semi-mobile installations.

EMC Fundamentals and Metrology

The optional EMC Fundamentals and Metrology course module is presented by MESA Solutions and covers: underlying EMC and Metrology principles illustrated by: an apparently simple set of experiments; practical techniques and careful metrology; EMC hardening measures in both design and measurement. The intention of the hands-on course is to provide participants with physical insights that will foster, from an EMC perspective, better spectrum monitoring, cable layout and system analysis.



Course Program

Day 1	Day 2	Day 3	Day 4 (optional)
ITU role and structure in relation to monitoring	Tasks of a monitoring service	Frequency band occupancy measurements	Understanding EMC and Metrology principles
Role of monitoring in the spectrum management process	ITU-R Reports, Recommendations and Handbooks	Frequency channel occupancy measurements	An apparently simple microwave oven experiment, along with coupling loops and shielding plates
Monitoring and the Radio Regulations	Typical measurements performed by monitoring	Practical: Control software	Practical techniques and EMC hardening measures and good design
Practical: Hardware & Systems	Practical: Signals & Interference	Integration of spectrum monitoring systems with spectrum management systems	
		Spectrum Management software functions	