



Training Course Outline

ITU AND STATE RADIO MONITORING CENTER, CHINA

Title	Spectrum Management and Technology Application
Modality	Online instructor led
Dates	23 May - 5 June 2022
Duration	2 weeks
Registration deadline	23 May 2022
Training fees	Free
Description	This course covers the core functions of spectrum management and spectrum management and technology application and is mainly targeted towards the staff of National Spectrum Management agencies. This course covers the core functions of spectrum management and technology application including 5G spectrum management, IOT implementation, Spectrum management for railway radiocommunication and so on.
Code	22OI27819ASP-E

1.LEARNING OBJECTIVES

To develop an understanding of the spectrum management and improve technology application.

2. LEARNING OUTCOMES

The training course will provide an empowering learning environment through a combination of course content and discussion boards focused on sharing information with the participants. Upon completion of this course, participants will be able to:

- Understand the core functions of spectrum management
- Understand 5G and IOT
- Be interested in the technique of wireless power transmission
- Basic knowledge of civil aviation spectrum and frequency management
- Understanding of spectrum management for railway radiocommunication.

3.TARGET POPULATION



This training is designed to address mid to senior level management from policy makers, regulators, corporate and technical executives and managers responsible for spectrum management and technology application, including in the area of power transmission, civil aviation and railway radiocommunication.

4.ENTRY REQUIREMENTS

Participants are expected to have background understanding of Spectrum Management and Technology Application.

5.TUTORS/INSTRUCTORS

Name of tutor(s)/instructor(s)	Contact details
Mr. WANG Tan	SRMC
Mr. LIU Xiaoyong	SRMC
Mr. DU Hao	SRMC
Mr. WANG Kanlin	ICSCC, CAAC
Mr. JIANG Bo	CARS
Ms. XIA Chunli	BEIHANG UNIVERSITY

6.TRAINING COURSE CONTENTS

The course mainly focus on spectrum management and technology application, such as 5G spectrum management, IOT implementation, Spectrum management for railway radiocommunication and so on.

7.TRAINING COURSE SCHEDULE

Topic	Speaker	Interactive Session
Week 1: The core functions of spectrum management, Internet of Things and 5G Objective: <ul style="list-style-type: none">• Understand the core functions of spectrum management• Understand 5G and IOT		
General legal framework for international regulation of radiocommunication	BEIHANG UNIVERSITY	24 th May 2022



<p><i>The presentation will introduce the general legal framework for regulating radiocommunication in international law. ITU law is undoubtedly the main focus. The presentation will also touch upon regional institutions that formulating common proposals for WRC, the outer space law, law of the sea, WTO law and the law of dispute settlement, etc.</i></p>	Ms. XIA Chunli	
<p>5G Spectrum Practice and future IMT Spectrum Consideration in China</p> <p><i>The presentation will provide some information of the 5G development and spectrum status in China. For current assigned 5G spectrum, some related technical work including sharing and compatibility studies and also a brief review of related work timeline will be introduced.</i></p>	SRMC Mr. WANG Tan	25 th May 2022
<p>IOT evolution and frequency management</p> <p><i>The presentation will introduce the basic concept and trend of Internet of Things , as well as some typical technologies and frequency management.</i></p>	SRMC Mr. LIU Xiaoyong	26 th May 2022
Quiz #1		27 th -31 th May 2022
<p>Week 2: Spectrum management and technology application</p> <p>Objective:</p> <ul style="list-style-type: none"> • Know wireless power transmission • Understanding of civil aviation spectrum and frequency management • Understanding of spectrum management for railway radiocommunication. 		
<p>Wireless power transmission: Technology developments and Spectrum Application study</p> <p><i>The presentation will introduce the technology characteristics and developments of the wireless power transmission (WPT), including non-beam and beam WPT. For spectrum application study, introduce the spectrum impact analyses of non-beam WPT, and development trend of equipment categories and spectrum application. Introduce radio management strategies of some countries and regions.</i></p>	SRMC Mr. DU Hao	30 th May 2022
<p>International Civil Aviation Frequency Management</p> <p><i>This presentation will introduce the international civil aviation spectrum and frequency management in the world and in APAC region.</i></p>	ICSCC, CAAC Mr. WANG Kanlin	31 st May 2022
<p>Development and Technical Evolution of RSTT (Railway Radiocommunication systems between train and trackside)</p> <p><i>Considering railway transportation contributes to global economic and social development, the presentation will make a brief introduction of RSTT, including structure, application and current global usage. The presentation will also introduce the technical evolution and the work have done related to RSTT in ITU during 2015~2019.</i></p>	China academy of railway sciences corporation, Lt Mr. JIANG Bo	1 st June 2022



Quiz #2	2 nd -5 th June 2022
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8.METHODOLOGY (Didactic approach)

This course will be delivered using instructor-led online learning. The course is delivered using power-point slides posted on the course page and selected reference materials that the participants have to study each week, participate in scheduled activities and undertake self-assessments. Students 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.

The training methodology will be as follows:

- Each module will be studied and discussed over the established time period;
- Training materials will be made available through online learning access page;
- Moderated Interactive discussion forums (60 mins with 15 mins for summary of relevant content and 45 mins for Q&A) will be organized where students are highly encouraged to participate and interact with instructors and other students;
- Quiz tests will be assigned at the end of a given training week;

All announcements for all events (materials, quizzes and forums) will be given prior to the event by the training tutor.

9.EVALUATION AND GRADING

Below are the evaluation schemes:

Quiz #1:	20%
Quiz #2	30%
Participation	20%
Assignment	30%

10.TRAINING COURSE COORDINATION

Course coordinator: Ms. Li Jianxin Tel: +86 10 6800 9073 Fax: +86 10 6800 9073 E-mail: lijianxin@srrc.org.cn	ITU coordinator: Name: Mr. Sean Doral Email address: sean.doral@itu.int
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