

ITU Academy 교육과정 참석 (Spectrum Management and IMT-2020 Radio Technology)

<전파기획팀, '19. 5. 18.>

□ 출장개요

출장목적	o Spectrum Management and IMT-2020 Radio Technology Application 교육 이수			
주요내용	o 중국 등 글로벌 스펙트럼 관리에 대한 전반적인 실행 프로세스의 이해, 라디오 모니터링 최신 툴(Tool) 소개 o 국제 주파수 정책 및 5G 주파수 계획연구 및 스마트시티 조성을 위한 주요지표(KPI) 개발현황 o 기타 지상서비스와 지구국의 국제 주파수 조정현황, 디지털TV방송 및 철도 무선통신 기술 등 → 그룹토의, 발표, 시험을 통한 체계적인 교육이수 도모			
출장기간	o 2019. 6. 16.(일) ~ 6. 21.(금), 5박 6일			
출 장 지	o 중국(하얼빈)			
출 장 자	소 속	직 급	성 명	성 별
	전파기획팀	7급	김용권	남
	전파자원개발팀	7급	이상우	남

□ 주요일정

일 자	출발지	도착지	업무수행내용	비 고
6.16.(일)	인천	하얼빈	o 인천(20:15) → 하얼빈(21:40, 직항)	항공
6.17.(월)	하얼빈		o 개회식 및 전파관리 이슈 소개 - 중국 스펙트럼 관리 및 사물인터넷 생태계 등	
6.18.(화)	하얼빈		o 5G 주파수 계획과 무선국 관리체계 - 중국 3-6GHz대역, 밀리미터파 대역의 5G플랜 및 무선국 관리 실무 등	
6.19.(수)	하얼빈		o 무선기술과 산업 - 5G 주요기술, 산업 발전동향, 상용화 제언 등	
6.20.(목)	하얼빈		o 현장 방문 - 유니콤 데이터센터 및 하얼빈 라디오 감시센터	
6.21.(금)	하얼빈	인천	o 시험 및 그룹 토의, 폐회식 o 하얼빈(14:30) → 인천(18:10, 직항)	항공

※ 상기일정은 현지상황에 따라 변동 가능

□ 기대효과

- 중국 등 국제 전파정책과 무선기술 및 스마트 도시 등의 응용산업 트렌드를 파악하여 향후 국내 전파정책 지원방안 수립 마련에 활용
- 전파규제·정책 유관기관 참가자 간의 그룹토의, 발표 등을 통한 글로벌 리더십 함양, 인적네트워크 구축

붙임1

항공권 견적서



담당자 : 신화인 실장 TEL : 02-778-5100 FAX : 02-778-5219

승객 여정표 Passenger Itinerary



2019 / 05 / 08

※ 본 승객 여정표의 모든 정보는 항공사 / 현지공항 / 호텔 / 렌터카회사 사정에 따라 사전 공지 없이 변동될 수 있습니다.

S 승객 정보 (Passenger Information)

- 승객 성명 (Passenger Name) : KIM/YONGKWONMR
- 예약 번호 (Booking Reference) : (OZ 항공) SRTLL5 (1B) TSYAMF

S 여정 정보 (Itinerary Information)

※운항 항공사(CHINA SOUTHERN AIRLINES)에서 탑승수속을 진행하시기 바랍니다.

OZ 6749 ASIANA AIRLINES (공동 운항편)

	도시/공항	일자/시각	터미널	클래스	비행시간	상태
출발	SEOUL INCHEON INT	16JUN(일) 20:15	TERMINAL 1	ECONOMY	02:25	OK
도착	HARBIN	16JUN(일) 21:40				
경유지(Via) :	좌석(Seat Number) :		기종(Aircraft) : AIRBUS A320			

OZ 340 ASIANA AIRLINES

ASIANA AIRLINES

	도시/공항	일자/시각	터미널	클래스	비행시간	상태
출발	HARBIN	21JUN(금) 14:30		ECONOMY	02:40	OK
도착	SEOUL INCHEON INT	21JUN(금) 18:10	TERMINAL 1			
경유지(Via) :	좌석(Seat Number) :		기종(Aircraft) : AIRBUS A321			

S 드리는 말씀 (Remarks)

항공료 513,700 원

- 발권시한 : 5/10
- 환불/변경/NOSHOW발생시 패널티 부과
- 마일리지사용 좌석등급 불가

붙임2

세부교육 커리큘럼

TRAINING SCHEDULE AND CONTENTS / AGENDA

Day 1- Opening and Introduction to Radio Management Issues 17 June, Monday (9:30 AM – 17:00 PM)		Speaker
9:30-10:00	Opening Remark	
10:00-10:45	Group Photo and Café-Break	
10:45-12:00	Radio Spectrum administration in China	BRR - MIIT
12:00-14:00	LUNCH	
14:00-15:15	Inter-communicating things - IoTs <i>The session will give an Overview of the Ecosystem of IoTs and highlight the different technical solutions available to develop these networks. Standardization activities of technical solution will also be part of the extended session</i>	ITU – RO-ASP
15:15-15:45	Café-Break	
15:45-17:00	Bilateral coordination of terrestrial service and earth stations <i>The session will give an overview of basic knowledge of international frequency coordination for terrestrial service and earth station, including international regulation, coordination scene, propagation model, calculation method etc.</i>	SRMC
18:00-20:00	Welcome Dinner	
Day 2- 5G Frequency planning and Management of radio stations 18 June, Tuesday (9:00 AM – 17:00 PM)		
9:00-10:15	5G frequency planning research in 3-6GHz frequency band. A case study from China. <i>The session will give an overview of 5G spectrum, especially introduce 5G frequency planning progress, frequency usage and interference coordination in 3-6GHz band in China</i>	SRMC
10:15-10:30	Café-Break	
10:30-11:15	Smart sustainable cities and its KPIs <i>The session will discuss the smart cities concept and highlight U4SSC KPIs of measuring the smart sustainable cities</i>	ITU – RO-ASP
11:15-12:00	Quiz	
12:00-14:00	LUNCH	
14:00-15:15	Development of Global 5G Spectrum Planning Research in Millimeter Wave <i>The session will give an Overview of 5G millimeter wave band usage scenario, global frequency plan, spectrum demand, and</i>	SRMC

	<i>will focus on the progress of studies and methods to satisfy the WRC-19 Agenda Item 1.13.</i>	
15:15-15:45	Café-Break	
15:45-17:00	<p>Introduction on Practices of Radio Station Management in China</p> <p><i>The session discusses on the international and national radio station management framework, and shares the knowledge and experiences in China on radio station management from the perspectives of laws and regulations, administrative management, and data management.</i></p>	SRMC
<p>Day 3- Radio Technology and Application 19 June, Wednesday (9:00 AM – 17:00 PM)</p>		
9:00-10:15	<p>5G Industry Development Update</p> <p><i>The session will introduce 5G industry development status. 1. 5G key performance and technology. 2. 5G major applications in consumer and industry market. 3. 5G ecosystem and deployment updates. 4. Advice for 5G commercialization.</i></p>	Huawei Technologies Co., Ltd.
10:15-10:30	Café-Break	
10:30-11:15	<p>Radio Regulation with respect to railway radio communications</p> <p><i>The session will give an overview of railway radio communications technologies in terms of applications and services, and highlight the technology development trend. Radio Regulation with respect to railway radio communications will also be part of this session.</i></p>	China Academy of Railway Sciences (CARS)
12:00-14:00	Lunch	
14:00-15:15	<p>Technology and Application of Terrestrial Digital TV broadcasting(Part I)</p> <p><i>The session will introduce the concept of digital TV, give an overview of the existing international standard, i.e., ITU standards and highlight the core technologies utilized as well as the performance improvement associated with that.</i></p>	Tsinghua University
15:15-15:45	Café-Break	
15:45-17:00	<p>Technology and Application of Terrestrial Digital TV broadcasting(Part II)</p> <p><i>The session will cover of migration from analog to DTV, introduce the DTV applications, and give an overview of the second generation international digital TV standard with the focus on its capability to handle the UHDTV.</i></p>	Tsinghua University
<p>Day 4 –Field visit</p>		

20 June, Thursday (9:00 AM – 17:00 PM)		
9:00-12:00	Visit local ICT Facility	
12:00-14:00	Lunch	
14:00-17:00	Visit Harbin Radio Monitoring Center (Field visit)	
Day 5- Examination, Group discussion and Closing Session		
21 June, Friday (8:30 AM – 15:30 PM)		
08:30-10:00	Examination	
10:00-12:30	Group discussion and know-how exchange (Group Presentations)	
12:30-14:30	Lunch	
14:30-15:30	Closing Session, Distribution of Class Evaluation	

METHODOLOGY

The training will include Instructor-led presentations, case studies, group exercises, study visits (as per the program above), and evaluations.

All training materials would be provided to the participants at least in soft form.

COURSE COORDINATION

SRMC Focal point: Ms. WANG Zhixia Tel: +86 10 6800 9051 Fax: +86 10 6800 9299 E-mail: office@src.org.cn wangzhixia@src.org.cn	ITU coordinator: Mr. Aamir Riaz Tel: +62 21 380 2321 / 380 2324 Fax: +62 21 3890 5521 E-mail: aamir.riaz@itu.int
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REGISTRATION

Please visit event website to register for the course at this link:

http://itu.int/go/SRMC_Harbin

Make sure you copy and paste the enrolment key which you can find on page 1 of this training outline as well as on the [advertisement](#) of the course.

붙임3

초청장



Telecommunication
Development Bureau (BDT)
Regional Office for Asia and the Pacific

Ref.: BDT/ROASP/2019-047

Bangkok, 29 March 2019

Administrations of ITU Member States,
Regulators, ITU-D Sector Members and
Academia Members in Asia-Pacific

Subject: **ITU Centres of Excellence face-to-face training course on Spectrum Management and IMT-2020 Radio Technology Application, Harbin-Heilongjiang Province, China, 17 – 21 June 2019**

Dear Sir/Madam,

I am pleased to invite your organization to participate in the face-to-face training course on "Spectrum Management and IMT-2020 Radio Technology Application" to be held in Harbin-Heilongjiang Province, China on 17 – 21 June 2019. The International Telecommunication Union (ITU) and the State Radio Monitoring Center (SRMC), Ministry of Industry and Information Technology (MIIT)-China, organize this training jointly. The training is organized as a part of Spectrum Management programme under the auspices of the ITU Centres of Excellence for Asia-Pacific region.

This training course aims to address the technical capacity building through sessions on theoretical, practical and market updates of issues related to IMT2020, IoTs, Digital broadcast etc. amongst others. The training would be delivered in English.

Detailed information on this training course is described in the course outline which can be downloaded from the ITU Academy Portal at the following link http://itu.int/go/SRMC_Harbin.

The course is targeted at staff from policy makers, regulators, corporate executives and managers, i.e. mid to senior level managers, administrators and officials dealing with Spectrum Management and Monitoring.

It is also of interest to anyone seeking to understand and exploit the benefits of IMT2020 and IoT technologies, including the market adoption of architectures, smart city realization and applications of Digital TV. Basic technical knowledge of Radio Frequency and wireless communication is required.

Registration should be made online at the aforementioned link no later than **15th of May 2019**.

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For any further information or queries related to the event, please do not hesitate to contact the training coordinators Ms Li Bingqi (libingqi@srcc.org.cn), and/or Mr. Aamir Riaz (aamir.riaz@itu.int).

As the course envisages active contribution of participants, including planned site visits to operational Radio Frequency monitoring facilities and others, therefore the total number of participants from outside China has been limited to 30.

In order to get the invitation **letter for the VISA**, please forward the registration confirmation email and send the copy of your passport to Ms. Wang Zhixia (office@srcc.org.cn) with a copy to Mr. Aamir Riaz (aamir.riaz@itu.int) **before 30th of April 2019 the latest**.

Additional information on this training course, such as an information note for participants, including a list of recommended hotels, is available at the ITU Academy Portal at http://itu.int/go/SRMC_Harbin.

We look forward to your active participation in this training course.

Yours faithfully,



Ioane Koroiyuki
ITU Regional Director Asia and the Pacific

Enc.:

- Annex 1 – Course Outline
- Annex 2 – Practical Information
- Annex 3 – Hotel Reservation form