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| **ITU Centres of Excellence Network for Asia and the Pacific**  **State Radio Monitoring Center - China**  **Training on**  **MONITORING RF SPECTRUM IN MODERN WIRELESS ERA**  **Kunming, Yunnan Province, China (Peoples Republic of)**  **16 – 20 April 2018**  **TRAINING OUTLINE** |

**COURSE DESCRIPTION**

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| **Title** | ITU Asia-Pacific CoE Training Program on Monitoring RF spectrum in Modern Wireless era |
| **Method of delivery** | Face-to-Face |
| **Objectives** | * Understand the process and new approaches to address the challenges to national spectrum management and monitoring. * Learn the practical implementation of   + Big data in Spectrum Monitoring,   + Space Radio Monitoring,   + IoT and IMT Spectrum issues,   + UAV based monitoring |
| **Dates** | 16 -20 April 2018 |
| **Registration deadline** | 15th March 2018 |
| **Additional details**  (*for updates kindly visit the event webpage*) | * **Tuition Fees:** **Free of cost**. No tuition charge for this training course however participant are expected to cover their travel, accommodation and other personal expenses during the period of the course. * **Location** : Kunming - People’s Republic of China * **Number of trainees from outside China**: not more than 30 * **Language of instruction**: English |

**LEARNING OUTCOMES**

This course covers the core functions of spectrum monitoring and is mainly targeted towards the staff of National Spectrum Management agencies. Starting with the case study of spectrum management case study of China, the course consists of detailed sessions on topics such as trends in radiocommunication monitoring technologies, space radio monitoring, UAV based radio monitoring etc. amongst others.

The training course also provides an empowering learning environment through a combination of lectures and visits focused on sharing information with the participants of modern technical tools to facilitate national radio monitoring in an efficient and effective way.

**TARGET POPULATION**

This training is designed to address mid to senior level management from policy makers, regulators, corporate executives and managers responsible for Spectrum Management and monitoring.

**TUTORS/INSTRUCTORS**

The detailed profile of the instructors can be accessed from the event webpage at: [www.itu.int/go/UEML](http://www.itu.int/go/UEML)

**EVALUATION**

The overall assessment is made up of four components. Two are based on the participants’ performance through administered tests and examinations, and the other two are based on the trainer’s evaluation of the participant.

1. **Participation** – The trainer allocates marks based on the participants’ level of involvement in group work and spontaneous quizzes during the course of the training. This component provides 35% towards the learner’s overall score.
2. **Attendance** - The trainer awards marks based on the rate at which the participant shows up in class based on the requirements of the course. This component provides 15% towards the overall score.
3. **Exam** - The exam is the final assessment of knowledge gained during the training. For this reason, it contributes the highest percentage of 50% to the overall score.

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| **Scoring Items** | | | **Weighted Scores** | | | |
| **Participation**  **(Group work and Quiz)** | **Attendance** | **Exam** | **Participation + Quiz**  **(35%)** | **Attendance**  **(15%)** | **Final Exam**  **(50%)** | **Total Score** |

**The overall pass mark to be attained by participant for certification is set at 60%.**

**TRAINING SCHEDULE AND AGENDA**

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| Day 1- Opening and Introduction to Radio Management Issues  16 April, Monday (9:30 AM – 17:45 PM) | | |
| 9:30-10:00 | Opening Remark | |
| 10:00-10:45 | Group Photo and Café-Break | |
| 10:45-12:00 | RF Radio management and monitoring in China | BRR – MIIT China |
| 12:00-14:00 | LUNCH | |
| 14:00-15:15 | ITU: Structure and Study Groups | Mr Aamir Riaz, ITU |
| 15:00-15:45 | Café-Break | |
| 15:45-16:45 | Case study on radio interference | Mr Huo Jia, SRMC |
| 18:00-20:00 | Welcome Dinner | |
| Day 2- New methods and techniques of Radio Monitoring  17 April, Tuesday (9:00 AM – 17:00 PM) | | |
| 9:00-10:15 | Trends of radio monitoring technology and application | Mr Wang Zhixin, SRMC |
| 10:15-10:30 | Café-Break | |
| 10:30-11:15 | IoT and IMT – Spectrum Issues |  |
| 11:15-12:00 | **Quiz** | |
| 12:00-14:00 | LUNCH | |
| 14:00–15:00 | Introduction to satellite monitoring | Ms Luo Chao, SRMC |
| 15:00-16:00 | Advanced Satellite interference geo-location techniques | Mr Hao Caiyong, SRMC |
| 16:00-16:15 | Café-Break | |
| 16:15-17:30 | Big Data in Spectrum monitoring | Mr Huang Xuemin, NG Networks |
| Day 3- Visit Spectrum Monitoring Facility  18 April, Wednesday (9:00 AM – 17:00 PM) | | |
| 9:00-10:00 | Visit the Yunnan Radio Monitoring Station |  |
| 10:00-11:00 | Monitoring Techniques based on UAV | Mr Ji Weilin, SRMC |
| 11:00-12:00 | Civil UAV Monitoring Techniques | Beijing Boer Communication  Chengdu HUARI Communications  Chengdu DIANZHEN Technology  Shanghai TERJIN Radio Technology |
| 12:00-14:00 | LUNCH | |
| 14:00-17:00 | Demonstration of UAV monitoring system | Beijing Boer Communication  Chengdu HUARI Communications  Chengdu DIANZHEN Technology  Shanghai TERJIN Radio Technology |
| 18:00-20:00 | Dinner | |
| Day 4 –Field visit and Cultural visit  19 April, Thursday (9:00 AM – 17:00 PM) | | |
| 9:00-12:00 | Cultural visit | Stone Forest Scenic Site |
| 12:00-14:00 | LUNCH | |
| 14:00-17:00 | Field visit | Yunnan Radio Monitoring Center |
| Day 5- Examination, Group discussion and Closing Session  20 April, 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 | |

**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.

**TRAINING COORDINATION**

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| **SRMC Focal point:**  Ms. WANG Zhixia  Tel: +86 10 6800 9051  Fax: +86 10 6800 9299  E-mail: [office@srrc.org.cn](mailto:office@srrc.org.cn) [wangzhixia@srrc.org.cn](mailto:wangzhixia@srrc.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](mailto:aamir.riaz@itu.int) |

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