

Eleventh Annual Radiation Measurement Cross Calibration Workshop (RMCC XI)
Applications to Nuclear Safeguards and Security
December 12-14, 2016 | Amman, Jordan

Day 1: Monday, December 12, MESIS Premises

- 08:00** **Departure from Hotel**
**Please meet in the hotel main lobby at 07:45*
- 08:30** **Arrival and Registration of Participants**
- 09:00** **Welcome Remarks and Introduction of Participants and Overview of the Radiation Measurement Cross Calibration Project (RMCC)**
- Al-Sharif Nasser Bin Nasser, Managing Director, *Middle East Scientific Institute for Security (MESIS)*
- 9:30** **Host Country Session on Radioanalysis Laboratory Capabilities and Issues**
- Dr. Mamoun Makahleh, Director of Research Laboratories and Information, *Jordan Atomic Energy Commission (JAEC)*
- 10:30** **Group Photo and Coffee Break**
- 11:00** **The Mixed Analyte Performance Evaluation Program (MAPEP) and Laboratory Audit Findings – Discussion of RMCC Participants in DOE’s Quality Assurance Program and New Developments in the Program**
- Mr. George Detsis, Program Manager, *U.S. Department of Energy / MAPEP*
- 12:00** **Lunch Break**
- 13:00** **Presentation on CMX-4 Exercise**
- Dr. Michael Kristo, Group Leader, *Lawrence Livermore National Laboratory (LLNL)*
- 13:45** **Coffee Break**
- 14:00** **The Role of Measurements in Nuclear Safeguards, Security, and Treaty Verification, *continued***
- **CTBTO’s Radionuclide Monitoring Network**
Mr. Wacel Hamani, Maintenance Engineer, *The Comprehensive Nuclear-Test-Ban Treaty Organization*
- **The Growing Field of Nuclear Forensics**
Mr. Ed Fei, Foreign Affairs Office, *U.S. Department of Energy*
- **A Regional Perspective of Nuclear Forensics**
Dr. Abdul-Wali Ajlouni, Vice-Dean, *Prince Nayef University*
- 16:15** **Closing**
- 20:00** **Group Dinner hosted by MESIS**

Day 2: Tuesday, December 13, Jordan Atomic Energy Commission**08:30** **Departure from Hotel****Please meet in the hotel main lobby at 08:15***09:00** **Opening Remarks****09:15** **Laboratory Management and Quality Assurance at JAEC: The Realities of Implementing International Standard ISO/IEC 17025:2005***- Dr. Mamoun Makahleh, Jordan Atomic Energy Commission (JAEC)***10:00** **JAEC Laboratory Facilities Tour and Presentation on Laboratory Proficiency, Validation, and Corrections**

Proficiency and validation tests in a wide range of environmental matrices, software for validation and corrections, and audits, visits, and expert missions in radioanalytical procedures including:

- In-situ gamma spectroscopy best practices, for example HPGe and NaI detectors, etc.
- Gross alpha/beta assay
- Radionuclides in water such as Bi-210, Ra-226, Pb-210, Thorium, Uranium, Other
- Reference materials for high-density media (soils)
- Best practices for soil and water sampling
- Validation of measurements for NORM/TENORM radionuclides such as Ra-226, Ra-22

12:00 **Lunch Break****13:00** **Announcements and Adjourn*****Free Afternoon for Participants***

Day 3: Wednesday, December 14, MESIS Premises

- 08:30** **Departure from Hotel**
**Please meet in the hotel main lobby at 08:15*
- 09:00** **Special Session: Qatar Foundation Project at CERN to develop charged particle and radiation detectors that are used for monitoring and detection in high energy, nuclear and medical physic applications**
- Dr. Othmane Bouhali, Research Associate Professor, *Texas A&M University, Qatar*
- 10:00** **Presentation on Nuclear Forensics Project**
- Ms. Olena Taberko, Governmental Partnership Program Manager, *Science and Technology Center in Ukraine (STCU)*
- 11:00** **Coffee Break**
- 11:20** **Presentation on the Durban Case**
- Dr. Morton Lee Davisson, Scientist, *Lawrence Livermore National Laboratory (LLNL)*
- 12:20** **Country Radioanalysis Laboratory Capabilities and Issues**
(15 Minutes per Country + 5 Minutes Discussion)
- Iraq
- Morocco
- 13:00** **Lunch Break**
- 14:00** **Country Radioanalysis Laboratory Capabilities and Issues**
(15 Minutes per Country + 5 Minutes Discussion)
- Tunisia
- Saudi Arabia
- Jordan
- 15:00** **Group Discussion: Common Challenges and Opportunities for Cooperation and Collaboration**
- All
- 15:45** **Coffee Break**
- 16:00** **Update on RMCC Project: Website Features and Member Services**
- Mr. Iyad Aldasouqi, *MESIS*
- 16:30** **RMCC Member Radiation Data Sharing: Prospects of Building a Regional Early-Warning System**
- 17:00** **Closing Remarks and Discussion of Sustainability and Future Steps**