The Abdus Salam International Centre for Theoretical Physics

International School on Nuclear Security

Cosponsor(s): the Italian Ministry of Foreign Affairs; the International Atomic Energy Agency (IAEA)
Organizer(s): IAEA: A. Braunegger-Guelich; ICTP: C. Tuniz
Trieste - Italy, 07 - 18 May 2012

Final programme

Monday, 7 May 2012 (Room:Leonardo da Vinci Building Main Lecture Hall)
Chairperson: Chair: C. Tuniz

08:00 - 09:30	(Room: Leonardo da Vinci Building, Lobby) **Registration and adiministrative procedures**
09:30 - 09:45	**ICTP/IAEA/Italian Ministry of Foreign Affairs** **Opening**
09:45 - 10:15	**A. Braunegger-Guelich** / *IAEA, Vienna, Austria* **Last Year School and Programme Overview of School 2012, Logistics**
10:15 - 10:45	**T. Andrews** / *IAEA, Vienna, Austria* **Nuclear Security Concerns and Protection against Nuclear Terrorism**
10:45 - 11:15	--- Coffee break ---
11:15 - 12:00	**TBD** **International Perspective on Nuclear Security**
12:00 - 12:30	**Group Photo**
12:30 - 14:00	--- Lunch break ---
14:00 - 14:45	**C. Tuniz** / *ICTP, Italy* **Introduction of Participants**

14:45 - 15:15	**Participants' Expectations**
15:15 - 15:45	--- Coffee break ---
15:45 - 16:00	**A. Braunegger-Guelich** / *IAEA, Vienna, Austria* **Video Session: The International Atomic Energy Agency (IAEA)**
16:00 - 17:00	**C. Tuniz** / *ICTP, Italy* **The Abdus Salam International Centre for Theoretical Physics (ICTP) - Guided Tour**
18:00 - 20:00	(Room: Leonardo da Vinci Building Cafeteria) --- Reception ---

Tuesday, 8 May 2012 (Room:Leonardo da Vinci Building Main Lecture Hall)
Chairperson: Chair: C. Tuniz

08:50 - 09:00	**A. Braunegger-Guelich** / *IAEA, Vienna, Austria* **Summary and Overview**
09:00 - 09:45	**C. Tuniz** / *ICTP, Italy* **Nuclear Applications**
09:45 - 10:30	**A. Braunegger-Guelich** / *IAEA, Vienna, Austria* **Nuclear security regime: objectives and essential elements**
10:30 - 11:00	--- Coffee break ---
11:00 - 11:45	**A. Wetherall** / *IAEA, Vienna, Austria* **The International Legal Framework for Nuclear Security**
11:45 - 12:30	**A. Wetherall** / *IAEA, Vienna, Austria* **Drafting Comprehensive Nuclear Laws - Nuclear Security Provisions and Model Criminal Provisions: Convention on the Physical Protection of Nuclear Material (CPPNM), 2005 CPPNM Amendment, Nuclear Terrorism Convention**
12:30 - 13:30	--- Lunch break ---
13:30 - 14:15	**A. Starz (TBC)** / *IAEA, Vienna, Austria* **Videoconference: Milestone Approach to Develop a National Nuclear Power Programme**
14:15 - 15:00	**R. Abedin- Zadeh** / *IAEA, Vienna, Austria* **Videoconference: Nuclear Security Infrastructure for a Nuclear Power Programme**
15:00 - 15:30	--- Coffee break ---
15:30 - 16:15	**A. Braunegger-Guelich** / *IAEA, Vienna, Austria* **Human resource development in the field of nuclear security**
16:15 - 17:15	**A. Braunegger-Guelich** / *IAEA, Vienna, Austria* **Exercise: Human resource development**
17:45 - 18:15	**A. Braunegger-Guelich** / *IAEA, Vienna, Austria* **Final Table Top Exercise and Feedback on the Small Group Exercise - Briefing**

Wednesday, 9 May 2012 (Room:Leonardo da Vinci Building Main Lecture Hall)
Chairperson: Chair: A. Braunegger-Guelich

08:50 - 09:00	**A. Braunegger-Guelich** / *IAEA, Vienna, Austria* **Summary and Overview**
09:00 - 09:45	**D. Dudenhoeffer** / *IAEA, Vienna, Austria* **Videoconference: Introduction to Information & Computer Security**
09:45 - 10:30	**A. Shakoor** / *Pakistan Nuclear Regulatory Authority (PNRA), Pakistan* **Threat Definition**
10:30 - 11:00	--- Coffee break ---
11:00 - 12:30	**A. Shakoor** / *PNRA, Pakistan* **Exercise: Threat Assessment**
12:30 - 13:30	--- Lunch break ---
13:30 - 14:15	**A. Shakoor** / *PNRA, Pakistan* **Introduction to Physical Protection System, design and evaluation**
14:15 - 15:00	**A. Shakoor** / *PNRA, Pakistan* **Facility characterization and target identification**
15:00 - 15:30	--- Coffee break ---
15:30 - 16:15	**A. Shakoor** / *PNRA, Pakistan* **Exercise: Target Identification**
16:15 - 17:00	**A. Shakoor** / *PNRA, Pakistan* **Design of Physical Protection System - Detection, Delay and Response**
17:00 - 17:30	**A. Braunegger-Guelich** / *IAEA, Vienna, Austria* **Plenary - Feedback on the Small Group Exercise**

Thursday, 10 May 2012 (Room:Leonardo da Vinci Building Main Lecture Hall)
Chairperson: Chair: C. Tuniz

08:50 - 09:00	**A. Braunegger-Guelich** / *IAEA, Vienna, Austria* **Summary and Overview**
09:00 - 09:45	**A. Shakoor** / *PNRA, Pakistan* **Exercise: Design of Physical Protection System - Detection, Delay and Response**
09:45 - 10:30	**A. Shakoor** / *PNRA, Pakistan* **Intrusion detection concepts, systems, exterior and interior systems, insider and outsider**
10:30 - 11:15	**V. Kryuchenkov** / *IAEA, Vienna, Austria* **Videoconference: Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities (INFCIRC/225/Revision 5) (IAEA Nuclear Security Series No 13)**
11:15 - 12:00	**A. Shakoor** / *PNRA, Pakistan* **Exercise Intrusion Detection concepts, systems, exterior and interior systems, insider and outsider**

12:00 - 12:45	**I. Khripunov** / *Center for International Trade and Security (CITS), U.S.A.* **Nuclear Security Culture - Concepts and methods for the implementation of nuclear security culture**
12:45 - 13:30	--- Lunch break ---
13:30 - 14:15	**I. Khripunov** / *CITS, U.S.A.* **Introduction to Export Control at the State Level**
14:15 - 15:00	**I. Khripunov** / *CITS, U.S.A.* **Exercise: Export Control**
15:00 - 15:30	--- Coffee break ---
15:30 - 17:00	**I. Khripunov** / *CITS, U.S.A.* **Continuation Exercise: Export Control**
17:00 - 17:30	**A. Braunegger-Guelich** / *IAEA, Vienna, Austria* **Competence building and nuclear security education**
17:30 - 18:00	**Participants** **Plenary - Feedback on the Small Group Exercise**

Friday, 11 May 2012 (Room:Leonardo da Vinci Building Main Lecture Hall)
Chairperson: Chair: A. Braunegger-Guelich

08:50 - 09:00	**A. Braunegger-Guelich** / *IAEA, Vienna, Austria* **Summary and Overview**
09:00 - 09:45	**N. Pope** / *IAEA, Vienna, Austria* **Videoconference: Use of Accountancy and Control for nuclear security at facilities**
09:45 - 10:30	**A. Shakoor** / *PNRA, Pakistan* **Nuclear Security Recommendations on Radioactive Material and Associated Facilities (IAEA Nuclear Security Series No 14)**
10:30 - 11:00	--- Coffee break ---
11:00 - 11:45	**C. Tuniz** / *ICTP, Italy* **Introduction to Security of Radioactive Sources**
11:45 - 12:30	**I. Shadad** / *IAEA, Vienna, Austria* **Videoconference: Inventory and Register of Radioactive Material**
12:30 - 13:30	--- Lunch break ---
13:30 - 14:15	**C. Tuniz** / *ICTP, Italy* **Security measures of radioactive sources in use and storage**
14:15 - 15:00	**A. Shakoor** / *PNRA, Pakistan* **Exercise: Categorization**
15:00 - 15:30	--- Coffee break ---
15:30 - 16:45	**A. Shakoor** / *PNRA, Pakistan* **Exercise: Security Measures**

16:45 - 17:15 **A. Braunegger-Guelich** / *IAEA, Vienna, Austria*
Plenary - Feedback on the Small Group Exercise

Saturday, 12 May 2012 (**Saturday**)

09:30 - 12:00 **D. Lambert** / *IAEA, Vienna, Austria*
Visit to Koper Port (Slovenia)

12:00 - 15:00 **Lunch in Koper and return to ICTP**

Monday, 14 May 2012 (Room:Leonardo da Vinci Building Main Lecture Hall)
Chairperson: Chair: C. Tuniz

08:50 - 09:00 **D. Lambert** / *IAEA, Vienna, Austria*
Summary and Overview

09:00 - 09:30 **J. Reculeau** / *IAEA, Vienna, Austria*
Transport Safety and the Interface with Security

09:30 - 10:15 **J. Reculeau** / *IAEA, Vienna, Austria*
Transport Security of Nuclear and Radioactive Materials

10:15 - 10:45 --- Coffee break ---

10:45 - 11:30 **J. Reculeau** / *IAEA, Vienna, Austria*
Transport Security Plan

11:30 - 12:45 **J. Reculeau & D. Lambert** / *IAEA, Vienna, Austria*
Exercise: Transport Security Plan

12:45 - 13:45 --- Lunch break ---

13:45 - 15:00 **J. Reculeau & D. Lambert** / *IAEA, Vienna, Austria & Italian Ministry of Interior*
Continuation Exercise: Transport Security Plan

15:00 - 15:30 --- Coffee break ---

15:30 - 16:30 **F. Germani** / *Italian Ministry of Interior*
National Security System

16:30 - 17:00 **J. Reculeau** / *IAEA, Vienna, Austria*
Video: Video on Secure Shipment

17:00 - 17:30 **D. Lambert** / *IAEA, Vienna, Austria*
Plenary - Feedback on the Small Group Exercise

Tuesday, 15 May 2012 (Room:Leonardo da Vinci Building Main Lecture Hall)
Chairperson: Chair: D. Lambert

08:50 - 09:00 **D. Lambert** / *IAEA, Vienna, Austria*
Summary and Overview

09:00 - 09:45	**D. Lambert** / *IAEA, Vienna, Austria* **Nuclear Security Recommendations on Nuclear and Other Radioactive Material out of Regulatory Control (IAEA Nuclear Security Series No 15 - Part I)**
09:45 - 10:30	**P. Peerani & V. Berthou** / *Joint Research Centre (JRC), Italy* **Overview of types of detection instrumentation**
10:30 - 11:00	--- Coffee break ---
11:00 - 11:45	**P. Peerani & V. Berthou** / *JRC, Italy* **Implementation strategy for the deployment of radiation detection equipment - Land borders, seaports, airports, international mail, internal strategic**
11:45 - 12:30	**P. Peerani & V. Berthou** / *JRC, Italy* **Demonstration of radiation detection instruments**
12:30 - 13:30	--- Lunch break ---
13:30 - 17:00	(Room: Multidisciplinary Laboratory) **P. Peerani & V. Berthou** / *JRC, Italy* **Small Group Exercise**
17:00 - 17:30	**C. Tuniz** / *ICTP, Italy* **Plenary - Feedback on the Small Group Exercise**

Wednesday, 16 May 2012 (Room:Leonardo da Vinci Building Main Lecture Hall)
Chairperson: Chair: C. Tuniz

08:50 - 09:00	**D. Lambert** / *IAEA, Vienna, Austria* **Summary and Overview**
09:00 - 10:00	**M. Rioux-Lefebvre** / *IAEA, Vienna, Austria* **Videoconference: Illicit trafficking and other nuclear security events - international exchange of information**
10:00 - 11:00	**M. Rioux-Lefebvre** / *IAEA, Vienna, Austria* **Videoconference: Illicit Trafficking and Other Nuclear Security Events ? Global Analysis**
11:00 - 11:30	--- Coffee break ---
11:30 - 12:00	**D. Lambert** / *IAEA, Vienna, Austria* **Nuclear Security Recommendations on Nuclear and Other Radioactive Material out of Regulatory Control (IAEA Nuclear Security Series No 15 - Part I)**
12:00 - 12:45	**D. Smith** / *IAEA, Vienna, Austria* **Radiological Crime Scene Management and Forensics Awareness**
12:45 - 13:45	--- Lunch break ---
13:45 - 14:30	**D. Smith** / *IAEA, Vienna, Austria* **Nuclear Forensics: Scope and Application**
14:30 - 15:15	**D. Smith** / *IAEA, Vienna, Austria* **Introduction to the Model Action Plan**
15:15 - 15:45	--- Coffee break ---

15:45 - 16:30	**D. Smith** / *IAEA, Vienna, Austria* **Nuclear Forensics as a preventive and deterrent tool**
16:30 - 17:15	**D. Lambert** / *IAEA, Vienna, Austria* **Nuclear Security Framework at Major Public Events**
17:15 - 17:30	**D. Lambert** / *IAEA, Vienna, Austria* **Video: 2007, Brazil - Pan American Games; 2008, China - Olympic Games**

Thursday, 17 May 2012 (Room:Leonardo da Vinci Building Main Lecture Hall)
Chairperson: Chair: D. Lambert

08:50 - 09:00	**D. Lambert** / *IAEA, Vienna, Austria* **Summary and Overview**
09:00 - 10:30	**D. Smith** / *IAEA, Vienna, Austria* **Case Study and Final Exercise: ?An Investigation of highly Enriched Uranium out of Regulatory Control?**
10:30 - 11:00	--- Coffee break ---
11:00 - 12:30	**D. Smith** / *IAEA, Vienna, Austria* **Case Study and Final Exercise**
12:30 - 13:30	--- Lunch break ---
13:30 - 15:00	**D. Smith** / *IAEA, Vienna, Austria* **Case Study and Final Exercise**
15:00 - 15:30	--- Coffee break ---
15:30 - 17:00	**Participants** **Case Study and Final Exercise - Group Presentations**

Friday, 18 May 2012 (Room:Leonardo da Vinci Building Main Lecture Hall)
Chairperson: Chair: C. Tuniz

08:50 - 09:00	**D. Lambert** / *IAEA, Vienna, Austria* **Summary and Overview**
09:00 - 09:45	**C. Torres Vidal** / *representing Director Office of Nuclear Security, IAEA* **The IAEA Nuclear Security Programme**
09:45 - 10:45	**J. Doyle, W. Bowen, B. Dal, L. van Dassen** / *Los Alamos National Laboratory, USA; King's College London, UK; Ministry of Infrastructure* **Panel Discussion**
10:45 - 11:15	--- Coffee break ---
11:15 - 12:30	**IAEA/ICTP** **Evaluation, Award of Certificates, Closing remarks**
12:30 - 13:30	--- Lunch break ---