
SECOND RESEARCH COORDINATION MEETING FOR THE COORDINATED RESEARCH PROJECT ON NUCLEAR FORENSICS SCIENCE TO BRIDGE THE RADIOLOGICAL CRIME SCENE TO THE NUCLEAR FORENSICS LABORATORY

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Nuclear forensics plays a vital role in nuclear security by providing the technical expertise needed to trace radiological evidence back to its source and support legal investigations. To strengthen international capabilities in this area, the International Atomic Energy Agency (IAEA) hosted the Second Research Coordination Meeting (RCM) for the Coordinated Research Project (CRP) “Nuclear Forensics Science to Bridge the Radiological Crime Scene to the Nuclear Forensics Laboratory” (J02020). Held from February 16 to 20, 2026, at the IAEA Headquarters in Vienna, Austria, the event served as a follow-up to the first RCM held in 2025 at the same venue.



Group Photograph of Participants at the Second RCM on “Nuclear Forensics Science to Bridge the Radiological Crime Scene to the Nuclear Forensics Laboratory”.

The meeting primarily aimed to facilitate the exchange of technical expertise and research findings among Chief Scientific Investigators (CSIs) representing the 19 participating countries under the CRP. These countries included Thailand, Malaysia, Tajikistan, Australia, China, Viet Nam, South Africa, Kenya, Ghana, Egypt, Greece, Poland, Latvia, Cuba, Indonesia, Hungary, Jordan, Serbia, and the European Commission JRC. In addition, the meeting was joined by international experts from the Netherlands, the United Kingdom, Germany, France, and Canada, who provided scientific feedback and supported the planning for the concluding year of J02020. During the meeting, participating countries presented their technical progress. The RCM also provided an opportunity to review progress and technical results, facilitate peer exchange and coordination among participating institutes, and agree on priorities and next steps.



Dr. Zalina Laili as a Chief Scientific Investigator, representing Malaysia.

Dr Zalina Laili presented Malaysia's progress through a study titled "Development of Method for the Characterisation of Source Capsules and Containers of Nuclear Gauges for Nuclear Forensic Purposes," highlighting work conducted by five specialised groups focusing on visual inspection, material composition analysis, neutron imaging, X-ray imaging, and PGNA / DGNA. The presentation emphasised the application of advanced analytical techniques, including FESEM-EDX, XRD, and EDXRF, for the characterisation of radioactive source casings. In addition, non-destructive techniques, including X-ray and neutron imaging, were applied to support internal structural assessment. It also outlined the development of Standard Operating Procedures (SOPs) to ensure a systematic and reliable approach for maintaining data integrity from crime scene handling to laboratory analysis. The Malaysian work received positive feedback from the IAEA panel.

The meeting further underscored the importance of collaboration through the sharing of reference materials, spectral data, and technical expertise among participating laboratories. Discussions also focused on planning for the third year of the project, including key deliverables and improved coordination to ensure effective implementation. Future CRPs were also explored, particularly in the areas of morphological signatures and non-destructive analytical techniques.



Dr. Zalina Laili presented a study titled "Development of Method for the Characterisation of Source Capsules and Containers of Nuclear Gauges for Nuclear Forensic Purposes."

Overall, the meeting provided a valuable platform for knowledge exchange and strengthened collaboration among participating countries. Participation in this CRP enhances Malaysia's technical capabilities, international networking, and readiness in nuclear security and forensic response. It also supports the integration of nuclear forensic capabilities into national security frameworks, improving preparedness in handling radiological incidents and supporting law enforcement investigation



Taking a quick moment to enjoy the beautiful Vienna snowfall between sessions at the IAEA Second RCM.