IAEA
International Atomic Energy Agency
Atoms for Peace and Development

International Workshop on Artificial Intelligence for Nuclear Security

Nuclear Security Training and Demonstration Centre (NSTDC)

IAEA Laboratories, Seibersdorf, Austria

14 - 18 December 2026

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Information Sheet

Introduction

In recent years, there has been growing interest in developing and applying Artificial Intelligence (AI) and Machine Learning (ML) to nuclear technologies. AI/ML has the potential to enable advanced analysis of nuclear security data and the development of innovative detection techniques and algorithms. AI/ML have the potential to reshape nuclear security systems and measures, offering unprecedented capabilities for addressing growing challenges in protecting nuclear materials, other radioactive materials, associated facilities and activities, and detecting criminal or intentional unauthorized actions. Computer security anomaly detection techniques and measures based on AI/ML have the potential to detect process anomalies and initiate automated responses before malicious cyber-attacks can lead to the real-world consequences of a nuclear security event. AI/ML technologies may enable real-time analysis of complex behavioral and operational data gathered from physical protection systems. Advanced algorithms can monitor personnel access patterns, monitoring systems, sensor networks, and facility logistics to identify anomalies suggestive of insider threats or unauthorized access attempts. AI/ML have also the potential to integrate inputs from radiation detection systems and surveillance systems, employing adaptive algorithms to optimize security responses during adversarial scenarios. Further developments in computer vision may enhance perimeter monitoring and AI-assisted risk modelling for nuclear material accountancy and control purposes. This event aims to provide a collaborative platform for discussing and advancing AI/ML applications, addressing Member States' needs to understand their potential in supporting the safe and secure use of nuclear technologies. By fostering interdisciplinary dialogue, the event aims to bridge cutting-edge research with practical implementation, ensuring AI/ML technologies strengthen nuclear security systems and measures.

Objectives

The objectives of the event are to introduce key concepts of Artificial Intelligence and enhance participants' understanding of its challenges, risks, and opportunities related to nuclear security.

Target Audience

- System Designers and Engineers: Professionals involved in the design and deployment of AI/ML tools and technologies for nuclear security applications.
- Operators and Regulators: Personnel responsible for the operational oversight and regulatory compliance of nuclear security systems.
- Subject-Matter Experts: Specialists in nuclear security, computer security, AI/ML, and related technical fields.
- International and Technical Organizations: Representatives from organizations specializing in AI, machine learning, and nuclear security technologies.

Working Language

English.

Participation and Registration

All persons wishing to participate in the event have to be designated by an IAEA Member State or should be members of organizations that have been invited to attend.

In order to be designated by an IAEA Member State or invited organization, participants are requested to submit their application via the InTouch+ platform (https://intouchplus.iaea.org) to the competent national authority (Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) or organization for onward transmission to the IAEA by **13 November 2026**, following the registration procedure in InTouch+:

1. Access the InTouch+ platform (https://intouchplus.iaea.org):
   - Persons with an existing NUCLEUS account can sign in to the platform with their username and password;
   - Persons without an existing NUCLEUS account can register here.

2. Once signed in, prospective participants can use the InTouch+ platform to:
   - Complete or update their personal details under 'Complete Profile' and upload the relevant supporting documents;
   - Search for the relevant event under the 'My Eligible Events' tab;
   - Select the Member State or invited organization they want to represent from the drop-down menu entitled 'Designating Authority' (if an invited organization is not listed, please contact InTouchPlus.Contact-Point@iaea.org);
   - If applicable, indicate whether a paper is being submitted and complete the relevant information;
   - If applicable, indicate whether financial support is requested and complete the relevant information (this is not applicable to participants from invited organizations);
   - Based on the data input, the InTouch+ platform will automatically generate the Participation Form (Form A) and/or the Grant Application Form (Form C);
   - Submit their application.

Once submitted through the InTouch+ platform, the application, together with the auto-generated form(s), will be transmitted automatically to the required authority for approval. If approved, the application, together with the applicable form(s), will automatically be sent to the IAEA through the online platform.

NOTE: The application for financial support should be made, together with the submission of the application, by **13 November 2026**.

For additional information on how to apply for an event, please refer to the InTouch+ Help page. Any other issues or queries related to InTouch+ can be sent to InTouchPlus.Contact-Point@iaea.org.

Selected participants will be informed in due course on the procedures to be followed with regard to administrative and financial matters.

Participants are hereby informed that the personal data they submit will be processed in line with the Agency's Personal Data and Privacy Policy and is collected solely for the purpose(s) of reviewing and assessing the application and to complete logistical arrangements where required. The IAEA may also use the contact details of Applicants to inform them of the IAEA's scientific and technical publications, or the latest employment opportunities and current open vacancies at the IAEA. These secondary purposes are consistent with the IAEA's mandate. Further information can be found in the Data Processing Notice concerning the IAEA InTouch+ platform.

Expenditures and Grants

No registration fee is charged to participants.

The IAEA is generally not in a position to bear the travel and other costs of participants in the event. The IAEA has, however, limited funds at its disposal to help meet the cost of attendance of certain participants. Upon specific request, such assistance may be offered to normally one participant per country, provided that, in the IAEA's view, the participant will make an important contribution to the event.

The application for financial support should be made, together with the submission of the application, by **13 November 2026**.

Visas

Participants who require a visa to enter Austria should submit the necessary application as soon as possible to the nearest diplomatic or consular representative of Austria.

Additional Information

Six or more months after completion of training events, participants will be required to complete a short survey on the use of acquired knowledge and skills or a change in attitudes. This will assist the Division of Nuclear Security in understanding the impact of its work and will guide future assistance.

Organization

Scientific Secretary

Mr Shaju George Chittilappilly Kunjappu
Division of Nuclear Security
Department of Nuclear Safety and Security
International Atomic Energy Agency
Vienna International Centre
PO Box 100
1400 VIENNA
AUSTRIA

Tel.: +43 1 2600 22126
Fax: +43 1 26007
Email: S.G.Chittilappilly@iaea.org

Administrative Secretary

Ms Camilla Semper
Division of Nuclear Security
Department of Nuclear Safety and Security
International Atomic Energy Agency
Vienna International Centre
PO Box 100
1400 VIENNA
AUSTRIA

Tel.: +43 1 2600 26635
Fax: +43 1 26007
Email: C.Semper@iaea.org

Subsequent correspondence on scientific matters should be sent to the Scientific Secretary and correspondence on other matters related to the event to the Administrative Secretary.

Event Web Page

Please visit the following IAEA web page regularly for new information regarding this event:

www.iaea.org/events/EVT2504955