



# **Training Workshop on Nuclear Instrumentation: From Detection Principles to Data Acquisition Systems**

**Seibersdorf, Austria**

**12 - 23 October 2026**

**Ref. No.: EVT2504066**

## **Information Sheet**

### **Introduction**

The use of ionizing radiation detectors is ubiquitous in several research and application fields, like nuclear science, medicine, agriculture, food science, energy, safety and security etc. The IAEA has been actively supporting Member States in the effective utilization of such devices in various contexts.

Many detector users focus primarily on the application without developing a deep understanding of detection principles or how data acquisition specifications influence measurements, ultimately affecting both the collected data and the interpretation thereof. Gaining insight into signal formation and processing across different detector types enhances troubleshooting capabilities and supports informed decisions when selecting nuclear instrumentation for laboratory use.

### **Objectives**

This training workshop aims to “open the black box” by providing an overview of how various types of ionizing radiation—alpha, beta, photons, and neutrons—are detected, along with the underlying principles that govern their measurement, and how the right signal treatment may affect the detector performance.

## Target Audience

This training workshop is intended for individuals with a basic understanding of ionizing radiation detectors and data acquisition systems who wish to deepen their knowledge of detection principles, as well as analogue and digital data acquisition methods.

Participants are expected to have a solid foundation in the interaction of radiation with matter and prior hands-on experience with basic radiation detectors using isotopic sources, such as scintillators or counters.

Member States are invited to designate one or more participants for this meeting. Member States are strongly encouraged to identify suitable women participants.

## Working Language(s)

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 14 June 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](mailto: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 **3 July 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](mailto: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. Further information can be found in the [Data Processing Notice](#) concerning 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 application by **3 July 2026**.

## Visas

Participants who require a visa to enter Austria should submit the necessary application to the nearest diplomatic or consular representative of Austria at least four weeks before they travel to Austria. Since Austria is a Schengen State, persons requiring a visa will have to apply for a Schengen visa. In States where Austria has no diplomatic mission, visas can be obtained from the consular authority of a Schengen Partner State representing Austria in the country in question.

## **Additional Requirements**

Applicants are requested to send a short CV with a brief justification statement, why this training would be beneficial for their organization and their professional development. Please describe your proficiencies in the following areas: Detector instrumentation Use of oscilloscope Analogue and digital data acquisition systems Data analysis skills

## **Organization**

### **Scientific Secretary**

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