



Technical Meeting on Commercial Equipment in Nuclear Applications and Non-Nuclear Standards for Safety Instrumentation and Control Systems

**IAEA Headquarters
Vienna, Austria**

1 - 3 July 2024

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Information Sheet

Introduction

In 2020, the International Atomic Energy Agency (IAEA) released a publication on Challenges and Approaches for Selecting and Qualifying Commercial Industrial Digital Instrumentation and Control Equipment for Use in Nuclear Power Plant Applications (NR-T-3.31). The key objectives of the publication are:

- To identify the key challenges associated with the use of digital commercial off the shelf (COTS) in nuclear safety applications;
- To provide guidance on the requirements for what would constitute an adequate justification process.

The main advantages of use of COTS are the reduced cost and time compared with nuclear grade devices as well as their extensive operational experience. However, their implementation in nuclear safety application needs to be justified to identify potential vulnerabilities and to minimise the risks of their systematic failure. Along with their benefits, COTS come with challenges in the justification process and maintenance of the justification.

Recognizing the relevance of the above-mentioned issues, at their 2023 meeting the members of the Technical Working Group on Nuclear Power Plant Instrumentation and Control (I&C) recommended to the IAEA that it should initiate relevant activities to discuss the use of COTS in nuclear safety I&C systems and the use of non-nuclear safety standards, and to receive feedback from the end users, suppliers and stakeholders involved in the justification process. In response, the IAEA organizes this technical meeting on Commercial off the Shelf (COTS) Equipment in Nuclear Applications/Non-

nuclear Standards for Safety I&C Systems to share the experience of the Member States and to identify the need for specific guidance in this area.

Objectives

The purpose of the event is to share operating experiences and good practices regarding the use of commercial equipment in nuclear applications and non-nuclear standards for safety instrumentation and control systems.

Target Audience

In view of the subject of the event, participation is limited to IAEA Member States that currently operate NPPs or are constructing their first NPP units. Participation is solicited from representatives of nuclear facilities and regulatory bodies, utilities, technical support organizations, designers, developers, vendors, and research organizations engaged in the field of I&C design and the application of such systems at NPPs. To ensure maximum effectiveness in the exchange of information, participants should be persons actively involved in the subject matter of the event.

The event is, in principle, open to all officially designated persons. The IAEA, however, reserves the right to limit participation due to limitations imposed by the available facilities. The maximum number of participants for this event is 60. It is therefore recommended that interested persons take the necessary steps to secure their official designation as early as possible.

Working Language(s)

English

Structure

The objective of the event is to serve as an international forum for enhancing interaction and information exchange among international experts on their professional experience on the use of COTS in nuclear power plant instrumentation and control systems.

Topics

Presentations are invited on key challenges, overall strategy and the safety justification of the use of COTS in nuclear power plant instrumentation and control systems. The following list provides examples of presentation topics that would be appropriate for the event:

- Feedback on the use of COTS: quality, reliability and performance;
- Challenges related to use of COTS;
- Common cause failure considerations;
- Vulnerability assessment and failure mode identification;
- Specific hardware and software vulnerabilities;
- Organizational challenges and procurement;
- Conformance against relevant standards: Non-nuclear Standards for Safety I&C Systems;
- Key elements of the strategy for the justification;
- Justification process, generic versus specific justification of COTS and graded approach;
- Maintenance of justification;
- Quality assurance;
- Lessons learned from experience (case studies, operating experience, proven practices, etc.).

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 **30 April 2024**, 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 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 **30 April 2024**.

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.

Presentations

Presentations should be prepared as Microsoft PowerPoint (ppt) or Portable Document Format (pdf) files. Computer-based projection facilities will be provided. Authors are requested to provide the Scientific Secretary with electronic copies of their presentation files in advance of their scheduled presentation slot so that the files can be duly uploaded. Electronic versions of the presentations are also necessary to ensure timely issuance of the proceedings to be prepared and distributed in electronic form.

It is not mandatory for all participants to submit a presentation. However, the IAEA welcomes and encourages contributions in this format. Time for the presentations will be limited to 25 minutes followed by a 5-minute discussion period.

The abstract of the presentation should be submitted to the Scientific Secretary by **30 April 2024**.

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 **30 April 2024**.

Venue

The event will be held at the Vienna International Centre (VIC) where the IAEA's Headquarters are located. Participants must make their own travel and accommodation arrangements.

General information on the VIC and other practical details, such as a list of hotels offering a reduced rate for IAEA participants, are listed on the following IAEA web page:

<https://www.iaea.org/events>.

Participants are advised to arrive at Checkpoint 1/Gate 1 of the VIC one hour before the start of the event on the first day in order to allow for timely registration. Participants will need to present an official photo identification document in order to be admitted to the VIC premises.

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 Information

The event will start on Monday, 1 July 2024, at 9.30 a.m. and end on Wednesday, 3 July 2024, at 2.00 p.m.

The event agenda, together with information on local arrangements, will be sent to the designated participants in due course.

General information on hotels offering a reduced rate for IAEA participants, are listed on the following IAEA web page: <https://www.iaea.org/events/hotel-list>.

Additionally, participants may elect to make their own bookings at hotels in the area of the event location.

Organization

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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.