



# **Training Course on Fundamentals of Safe, Secure and Sustainable Nuclear Power Generation through the Intercontinental Nuclear Institute (INI)**

**Hosted by**

**The Government of the Czech Republic and United States of America**

**through a virtual component from**

**7 March 2023 to 2 May 2023**

**followed by an onsite component through the**

**NuclearHub  
Prague, Czech Republic  
22 May to 3 June 2023**

**University of Massachusetts Lowell  
Lowell (MA), United States of America  
4 to 16 June 2023**

**Ref. No.: TN-RER2018-2207862**

## **Information Sheet**

### **Purpose**

The purpose of the event is to provide practical fundamentals of safe, secure and sustainable nuclear power generation.

### **Working Language(s)**

The working language(s) of the event will be **English**.

# Deadline for Nominations

Nominations received after **31 January 2023** will not be considered.

## Project Background

The IAEA supports Member States in developing national long-term nuclear energy strategies as part of a globally sustainable nuclear energy infrastructure through capacity building, global dialogue and technical engagement. A sustainable nuclear power programme is considered to be one that is based on highest level of safety and security with real long-term needs for nuclear power in the energy mix, no proliferation risk and design and operation.

To this end, the Intercontinental Nuclear Institute (INI) represents a key contribution in the creation of an informed workforce capable of contributing to the long-term sustainability of nuclear power programmes worldwide.

## Expected Outputs

The expected outputs of the INI programme are:

- Participants acquired hands on experience in key practical areas of nuclear engineering, with a focus on nuclear industry and safety aspects.
- Participants acquired knowledge, enabling work in, or recruitment by the nuclear energy sector, in an informed manner.

## Scope and Nature

The programme at the INI (<http://www.intercontinental-nuclear-institute.com/>) is supported by the IAEA and will deliver fundamentals and practical training, with hands-on experiments and insights into the nuclear industry, as outlined below:

- An online component consisting of technical lectures, discussions, group works and stand-alone e-learning modules prior to the onsite component.
- Technical lectures and workshops led by academic and industry experts on nuclear science and engineering, technology, planning, licensing, management, engineering, procurement, construction, and safety and security culture for nuclear power programs.
- Hands-on experiments at the UML Radiation Laboratory, including the UML Research Reactor, and at various research reactors in the Czech Republic, under the guidance of nuclear engineering professors and reactor operators, to highlight key nuclear reactor theory, practice and safety concepts.
- Technical visits to various nuclear facilities, including nuclear power plants, in the United States and Czech Republic.
- Assessment tools will be utilized during classes to evaluate session effectiveness.
- Evaluation forms will be given to collect feedback about the pace and method of instruction.

Ability to participate in all activities (virtual and onsite) is a prerequisite for being accepted to and successfully complete the course. Participation in all online activities is a prerequisite to participate in the hands-on components of the course in Czech Republic and the United States. A certificate will be provided upon successful completion of the course.

## **Participation**

The INI programme is open to 30 participants from IAEA Member States. Priority will be given to the qualified candidates from TC Europe Region countries which operate, have operated or are planning to operate nuclear power plants, namely: Armenia, Belarus, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Kazakhstan, Lithuania, Poland, Romania, Slovakia, Slovenia, Türkiye, Ukraine and Uzbekistan.

Additionally, based on the interest expressed by numerous Member States to participate in the INI, a limited number of qualified candidates from interested countries outside the TC Europe Region which operate, have operated or are planning to operate nuclear power plants will be considered for participation, namely: Algeria, Argentina, Bangladesh, Brazil, Egypt, El Salvador, Ethiopia, Ghana, Indonesia, Iran, Jordan, Kenya, Mexico, Morocco, Niger, Nigeria, Pakistan, Philippines, Saudi Arabia, Senegal, South Africa, Sri Lanka, Sudan, Thailand, Tunisia, Uganda, United Arab Emirates, Viet Nam and Zambia.

Accepted participants from these countries will either be self-funded or funded through relevant national, regional or interregional TC projects.

## **Participants' Qualifications and Experience**

The participants should be graduate students or young professionals with (i) a degree in science or engineering, outside of the nuclear field (primary audience) or (ii) a degree in the nuclear sciences, but with no or limited practical experience in the nuclear industry (secondary audience) or (iii) a non-nuclear degree, but experience in the nuclear field (tertiary audience). Participants should be able to demonstrate a keen interest in working in the nuclear energy sector.

The interregional training course will be conducted in English and candidates might be contacted for an English interview with an IAEA panel in addition to the submission of certified English proficiency confirmation to ensure their active participation.

All nominations must include a passport-size photo on the first page of the nomination on the top right-hand corner as well as a copy of the first page of the applicant passport (with photo). Please note that incomplete nominations will not be reviewed.

# Occupational Exposure to Radiation

This event may involve occupational exposure to radiation. Therefore, candidates are required to duly complete and return the Occupational Exposure History (OEH) form upon applying for the event. The IAEA will provide selected participants in due course with a dosimeter to monitor their occupational exposure during this event.

## Application Procedure

Candidates wishing to apply for this event should follow the steps below:

1. Access the InTouch+ home page (<https://intouchplus.iaea.org>) using the candidate's existing Nucleus username and password. If the candidate is not a registered Nucleus user, she/he must create a Nucleus account (<https://websso.iaea.org/IM/UserRegistrationPage.aspx>) before proceeding with the event application process below.
2. On the InTouch + platform, the candidate must:
  - a. Finalize or update her/his personal details, provide sufficient information to establish the required qualifications regarding education, language skills and work experience ('Profile' tab) and upload relevant supporting documents;
  - b. Download and complete the [Designation of Beneficiary and Emergency Contact Form](#), and upload to InTouch+ ('Profile' tab under the personal section) specifying the document name. If already provided, kindly discard this step; and
  - c. Search for the relevant technical cooperation event (**EVT2207862**) under the 'My Eligible Events' tab, answer the mandatory questions and lastly submit the application to the required authority.

**NOTE:** Completed applications need to be approved by the relevant national authority, i.e. the National Liaison Office, and submitted to the IAEA through the established official channels by the provided designation deadline.

For additional support on how to apply for an event, please refer to the [InTouch+ Help page](#). Any issues or queries related to InTouch+ can be addressed to [InTouchPlus.Contact-Point@iaea.org](mailto:InTouchPlus.Contact-Point@iaea.org).

Should online application submission not be possible, candidates may download the nomination form for the training course from the [IAEA website](#).

**NOTE:** A medical certificate signed by a registered medical practitioner dated not more than four months prior to starting date of the event must be submitted by candidates when applying for a) events with a duration exceeding one month, and/or b) all candidates over the age of 65 regardless of the event duration.

## **Administrative and Financial Arrangements**

The INI programme will be organised through two different types of participants: IAEA Financed (Type I) and Self-Funded (Type II). Priority will be given to self-funded candidates, with participants from countries eligible to receive financial assistance selected based on the availability of funds.

Selected participants from countries eligible to receive financial assistance (Type I) will be provided with a round trip economy class air ticket from their home countries to Prague, Czech Republic, from Prague, Czech Republic, to Lowell, United States of America, and back to their home countries. In addition, the IAEA will cover the training fees and daily expenses.

Self-funded (Type II) candidates (or their funding entity) are responsible for the training course fee of USD 10,800, which includes online lectures, group materials, meals, accommodation, transportation and technical tours. They will be also responsible for the air tickets from their home countries to Prague, Czech Republic, from Prague, Czech Republic, to Lowell, United States of America, and back to their home countries.

When submitting the training course nomination form to the IAEA, candidates are requested to indicate in the header whether their application is to be considered as an IAEA Financed (Type I) or as a Self-Funded (Type II) application.

Nominating authorities will be informed in due course of the names of the candidates who have been selected, and will at that time be informed of the procedure to be followed with regard to administrative and financial matters.

## **Disclaimer of Liability**

The organizers of the event do not accept liability for the payment of any cost or compensation that may arise from damage to or loss of personal property, or from illness, injury, disability or death of a participant while he/she is travelling to and from or attending the course, and it is clearly understood that each Government, in approving his/her participation, undertakes responsibility for such coverage. Governments would be well advised to take out insurance against these risks.

## **Note for female participants**

Any woman engaged by the IAEA for work or training should notify the IAEA on becoming aware that she is pregnant.

The Board of Governors of the IAEA approved new International Basic Safety Standards for Protection against Ionizing Radiation and for the Safety of Radiation Sources. The Standards deal specifically with the occupational exposure conditions of female workers by requiring, inter alia, that a female worker should, on becoming aware that she is pregnant, notify her employer in order that her working conditions may be modified, if necessary. This notification shall not be considered a reason to exclude her from work; however, her working conditions, with respect to occupational exposure shall be adapted with a view to ensuring that her embryo or foetus be afforded the same broad level of protection as required for members of the public.

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