



Interregional Training Course on Understanding the Physics and Technology of Small Modular Reactors (iPWR design) using IAEA's educational Simulator

Hosted by

The International Atomic Energy Agency (IAEA)
IAEA Headquarters
Vienna, Austria

5 to 8 July 2022, VIC room C0440

Ref. No.: TN-INT2020-EVT2202416

Information Sheet

Purpose

The purpose of the event is to provide junior staff, university professors, nuclear professionals working in nuclear industry with a basic understanding of operational principles of a small modular reactor (integral PWR design) with the help of computer simulation tools.

Working Language(s)

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

Deadline for Nominations

Nominations received after **20 May 2022** will not be considered.

Project Background

Many countries, embarking or expanding, are considering the development and deployment of small modular reactors. The associated demand for qualified nuclear professionals drives the need for the development of competence and human capacity building in nuclear science. This training course using educational simulator directly supports human capacity building with regards to technical competence. For more than 20 years, the IAEA has been using these educational simulators to enhance the understanding of physics and technology of various types of designs, and successfully conducted over 50 training courses/workshops.

Expected Outputs

The training will aid in understanding the physics and technology of small modular reactors (integral PWR design) including nuclear reactivity control, thermodynamics, stability and control in steady state and in dynamic situations, technology design and safety system design. Through the use of educational simulators, training participants will be able to apply these concepts to understanding the behavior and response to normal operation and abnormal conditions in a nuclear power plant and improve their knowledgeable about the design and function of key safety systems.

Scope and Nature

The course will involve lectures, classroom discussion, practical and hands-on training and group projects using the IAEA's iPWR educational simulators.

Participation

The course is open to 30 participants from following Member States participating in INT2023 project:

Algeria, Argentina, Bolivia, Brazil, Chile, China, Croatia, Egypt, Estonia, Ghana, India, Indonesia, Iran, Israel, Jordan, Kenya, Malaysia, Morocco, Pakistan, Philippines, Poland, Romania, Russian Federation, Saudi Arabia, Singapore, Slovenia, Sri Lanka and Tunisia.

Participants' Qualifications and Experience

The applicant should hold at least a bachelor's degree in engineering (preferably nuclear, mechanical, chemical, industrial or electrical) or physics, comfortable in using computer and good understanding of English language.

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. Search for the relevant technical cooperation event (EVT2202416) 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.

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

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.

Selected participants will receive an allowance from the IAEA sufficient to cover their costs of lodging, daily subsistence and miscellaneous expenses. They will also receive either a round-trip air ticket based on the most direct and economical route between the airport nearest their residence and the airport nearest the duty station through the IAEA's travel agency American Express, or a travel grant, or they will be reimbursed travel by car/bus/train in accordance with IAEA rules for non-staff travel.

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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