



Master's Degree Programme in Nuclear Power Plant (NPP) Engineering

Hosted by

The Republic of Korea

through the

KEPCO International Nuclear Graduate School (KINGS)

21 February 2023 – February 2025

Ref. No.: FS-INT2021-2208030

Information Sheet

Purpose

The purpose of the two years Nuclear Engineering Master's degree programme is to provide prospective future personnel of nuclear power programmes in the Member States with an overall understanding of factors that are needed in order to have a safe, secure and sustainable nuclear power programme.

Working Language

The working language of the event will be English.

Deadline for Nominations

Nominations received after **13 January 2023** will not be considered.

Project Background

Member States considering or planning to introduce or expand nuclear power are requesting Agency assistance in developing a safe, secure and sustainable nuclear power programme. Nuclear power requires a national infrastructure that provides governmental, legal, regulatory, managerial, technological, human resource, industrial and stakeholder support for the nuclear power programme throughout its life cycle. The demonstration of compliance with international legal instruments, internationally accepted nuclear safety standards, nuclear security guidelines and safeguards requirements is essential in establishing a responsible nuclear power programme. The Member States is to require more specialized, advanced support from the Agency than was provided under previous projects (INT2013 and INT2018). This interregional project INT2021 (for years 2020-2023) was designed and approved using an evolutionary approach following lessons learned from two previous four-year interregional projects in this field of activity with adaptations to match Member State needs, including human resources development.

This Master's degree will focus mainly on training young professionals from countries embarking on new or expanding nuclear power programmes with managerial potential about the nuclear engineering aspects related to the development of nuclear power programmes.

The objective of the KINGS Master's degree programme is to provide a broader knowledge of nuclear engineering than usual Master's degree programme and to develop competence in engineering application or design but with a reduced emphasis on research. The programme includes completion of both an extensive and individually arranged academic course programme and a special project of significant engineering value.

Expected Outputs

An increased number of qualified nuclear engineers with solid knowledge and expertise in the fundamental aspects related to developing, operating and regulating a safe and secure nuclear power programme.

Scope and Nature

The Master's degree programme in nuclear power plant engineering is for junior professionals in the target countries involved in the development of new or expanding nuclear power programmes. Ideally, these individuals should represent the nuclear energy programme implementing organization, owner/operator organization, regulatory body or relevant technical support organization.

KEPCO International nuclear graduate School (KINGS) is an educational institute established to cultivate the next generation of professionals in planning, design, construction, operation and management of nuclear power plants (NPPs). KINGS has developed a programme, curriculum and teaching method that is unique and innovatively to educate and train international nuclear professionals who will contribute to the enhancement of nuclear safety and technology.

Participation (embarking countries)

The Master's Degree is open to a maximum of 18 candidates from the following target countries that need assistance to enhance the number of staff involved in launching or expanding nuclear power programmes: Brazil, Czech Republic, Egypt, Indonesia, Jordan, Kenya, Nigeria, Poland, Saudi Arabia, Slovakia, South Africa, United Arab Emirates, Vietnam.

Participants' Qualifications and Experience

Applicants should include a description of their current and future role in the nuclear power programme, as well as how this education will support the overall objectives of the programme. Applicants need to be supported by their institution and meet the following criteria:

- Hold a bachelor's degree or its equivalent in sciences and/or engineering from a recognized university (bachelor's degree holder of other areas with working experiences in policy making for national energy supply or nuclear energy applications could also apply).
- Preferably one (1) year practical working experience.
- Possess a proficiency in English (spoken, written and reading) enabling them to read and express themselves in this language without difficulty.

The Master's Degree of KINGS is cleared by the Ministry of Education (MOE) of Republic of Korea and will be officially recognized in all Member States.

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 (**EVT2208030**) under the 'My Eligible Events' tab, answer the mandatory questions and lastly submit the application to the required authority.
3. Application procedure for KINGS Graduate School:

To apply to KINGS, applicants should have earned a bachelor's degree or its equivalent in sciences and/or engineering. This, however, does not discourage bachelor's degree holders in other field areas with working experiences in policy making for national energy supply or nuclear energy applications.

Application to KINGS and additional information on eligibility and guidelines on the application process can be found on the website: <http://www.kings.ac.kr>.

Applications must be submitted directly and independently by the candidate through the above-mentioned website.

IAEA will give priority consideration to those candidates who fully meet or exceed the application requirements.

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 meeting 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 Governments will be informed in due course of the names of the selected candidates and will, at that time, be given full details on the procedures to be followed with regard to administrative and financial matters. Participants selected by the IAEA for the stipend from countries eligible to receive technical assistance will also be provided with a round-trip economy class air ticket from their home countries to Ulsan, Republic of Korea and insurance coverage. It is noted that KINGS will provide these IAEA selected candidates with funding to cover tuition fees, board and lodging. Shipment of accumulated master's degree programme materials to the participants' home countries is not the responsibility of the IAEA nor KINGS. Final admission to the master's degree programme will be decided by the host organization (KINGS) according to its academic admission criteria.

The organizers of the master's degree programme 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 traveling to and from or attending the master's degree programme, and it is clearly understood that each Government, in nominating participants undertakes responsibility for such coverage. Governments would be well advised to take out insurance against these risks.

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.

IAEA Contacts

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