IAEA
International Atomic Energy Agency
Atoms for Peace and Development

International Conference on Nuclear Knowledge Management and Human Resources Development: Challenges and Opportunities

Moscow, Russian Federation

13–16 June 2022

Organized by the
International Atomic Energy Agency (IAEA)

Hosted by the

Government of the Russian Federation
through

State Atomic Energy Corporation "ROSATOM"

Announcement and Call for Papers

A. Background

The nuclear field faces human resource challenges across the board, including in Member States operating nuclear power plants and countries in phases 2 and 3 of the Milestones approach, as well as at other nuclear facilities, including research reactors, and radioactive waste management and fuel cycle facilities, subject to long term operation or decommissioning. Many of the opportunities for improving human resource development capabilities and ensuring the movement of knowledge and skills throughout the nuclear lifecycles are similar for all these facilities.

The programmatic activities of the IAEA encompass a dedicated subprogramme on nuclear knowledge management which focuses on:

- Developing methodologies and guidance documents for planning, designing and implementing nuclear knowledge management programmes;

- Facilitating nuclear education, networking and experience exchange;

- assisting Member States by providing products and services for maintaining and preserving nuclear knowledge; and

- Promoting the use of state-of-the-art knowledge management technologies and supporting interested Member States in their use.

The first international conference on nuclear knowledge management (NKM) was held in 2004 in Saclay, France; the second and third such conferences were held in Vienna in 2007 and 2016. This conference was originally scheduled to be held in Moscow in June 2020 but was postponed due to the Covid-19 Pandemic issues.

NKM-related topics, including capacity building, human resource development (HRD), education and training, and knowledge management were also addressed at a number of other conferences, including the first international conference on HRD held in Abu Dhabi in 2010, and the second and third such conferences held in Vienna in 2014 and in Gyeongju, Republic of Korea, in 2018.

B. Purpose and Objectives

The purpose of the event is to review developments in the global situation relating to human resource development and nuclear knowledge management, consider the current and future challenges and opportunities, and to provide participants practical solutions that they can use at organizational, national, and international levels to develop and maintain the human resources needed to support the safe and sustainable nuclear power programmes.

C. Themes and Topics

To facilitate the conference objectives, each topical session will have the following format:

- A keynote speaker, who will present a paper by invitation;

- A set of presentations that supplement specific areas within the session topic and stimulate discussion among conference participants; and

- A set of detailed technical papers that present the state of the art of the subject area.

D. Structure

Opening Session: Opening, plenary and keynote presentations

Opening addresses will be made by a senior management representative of the IAEA, a representative of the Government of the Russian Federation and the Chairperson of the Conference, who will be a senior manager from the host organization. The session will set the conference objectives and provide background information on the status and trends in the field of NKM and HRD including challenges to ensure the future nuclear workforce capability. Keynote interventions will provide information about cross-cutting aspects in NKM and HRD and specific applications of nuclear technologies that will emphasize the increasing reliance on a systematic and more effective approach to enhance the safe and economical operation of nuclear facilities. This includes lessons learnt in response to the Learning and Development (L&D) challenges from the Covid-19 pandemic response.

Session 1: Nuclear Knowledge Management

An integrated approach to NKM increases the importance and understanding of the workforce challenges across the full human resource lifecycle in the nuclear field, from embarking countries developing new nuclear programmes to existing facilities moving to decommissioning activities.

Session 2: Learning and Development for Human Resources

There is a great need for robust strategies, sustainable programmes and shared materials for the improvement of the entire education/training process in the field of learning and development for human resources, and for the preservation of knowledge and expertise management.

Session 3: Digital Transformation to Support NKM and HRD

The aim of this session is to share technical updates on experiences and lessons learned in relation to information technology and digital applications to support NKM and HRD, understanding how to plan and improve the digitalization strategy for achieving business goals, the role of modern educational technology to improve learning environment for a nuclear workforce development and the potential digital technology available and using it to transform industry and businesses.

Session 4: Nuclear Information Management

Due to emerging and disruptive information technologies and changing business needs, nuclear information management is undergoing substantial changes. Immediate access to reliable, trustworthy, easy to use and easily implementable, up-to-date information is required. In order to achieve this, proper information security and governance, top-of-the-line hardware and modern software, as well as properly trained staff need to be put in place. On the national and international level, a culture of long term preservation and information sharing need to be promoted.

Panel Discussions

To discuss technical challenges and experiences, panel discussions will be organized for technical sessions 1 to 12 in parallel. The panellists and audiences will have a chance to exchange their hands-on experiences and lessons learned on knowledge management challenges and approaches. A closing panel discussion by high level technical experts will consider:

- Technological issues;

- Regulatory issues;

- Political issues;

- Human resources; and

- Public information.

Closing session

To conclude the conference, the session chairs will summarize the presentations and discussion of each technical session and the Chairperson will present their conclusions and recommendations to the IAEA.

E. Expected Outcomes

This conference will review the current state of nuclear HRD, including nuclear learning and development and knowledge management activities, and will address issues such as availability and opportunities for sharing of relevant infrastructure. The conference will also directly support the ongoing business plans being delivered for Member States associated with HRD, learning and development, NKM and information management activities to support capacity building. The integrated approach to HRD and NKM will enable the specific topics and activities of the conference to be better tailored to meet the requirements of Member States who no longer view NKM and HRD as separate entities.

Specific outcomes will include;

- The best practices and practical guidance used at organizational and national levels will be shared to support sustainable human resource policies,

- nuclear knowledge management and information management activities across the workforce lifecycle will be disseminated and discussed for the benefit of member states,

- International cooperation approaches through conferences will be initiated and strengthened to address workforce related knowledge management issues at regional and international levels.

F. Target Audience

The conference is directed mainly at the staff of utilities, research and design organizations, regulatory bodies, and manufacturing and service companies, as well as government decision makers concerned with near, medium- and long-term nuclear energy needs, including:

- Government officials responsible for the introduction or expansion of nuclear power programmes;

- Managers, human resource managers and specialists, and training managers and specialists from the organizations that operate, regulate or support nuclear power plants and other nuclear facilities;

- Administrators, department chairs and faculty of universities, polytechnic institutes and training centres;

- Education and training specialists, knowledge management specialists and trainers from supplier organizations to the nuclear industry;

- Representatives of technical support organizations, vendors and supplier trade organizations that support the nuclear industry;

- Leaders of national and international organizations that establish policies and programmes in areas related to HRD of importance to the nuclear industry;

- Managers and specialists of organizations that communicate with nuclear industry stakeholders, particularly potential future employees in the nuclear industry; and

- Representatives of the next generation of nuclear professionals.

G. Call for Papers

Contributions on the topics listed in Section C are welcome as oral or poster presentations. All submissions, apart from invited papers, must present original work, which has not been published elsewhere.

G.1. Submission of Abstracts

Abtracts (approximately 150 to 200 words on one printed A4 page, may contain any charts, graphs, figures and references) should give enough information on the content of the proposed paper to enable the Programme Committee to evaluate it. Anyone wishing to present at the conference must submit an abstract in electronic format using the conference's file submission system (IAEA-INDICO), which is accessible from the conference web page (see Section Q). The abstract can be submitted through this system from **1 August 2021** until ~~31 December 2021~~ ~~31 January 2022~~ **15 March 2022**. Specifications for the layout will be available on IAEA-INDICO. The system for electronic submission of abstracts, IAEA-INDICO, is the sole mechanism for submission of contributed abstracts. Authors are encouraged to submit abstracts as early as possible. The IAEA will not accept submissions via email.

In addition, authors must register online using the InTouch+ platform (see Section H). The online registration together with the auto-generated Participation Form (Form A) and Form for Submission of a Paper (Form B) must reach the IAEA no later than ~~31 December 2021~~ ~~31 January 2022~~ **15 March 2022**.

IMPORTANT: The Programme Committee will consider uploaded abstracts only if these two forms have been received by the IAEA through the established official channels (see Section H).

G.2. Acceptance of Abstracts

The Secretariat reserves the right to exclude abstracts that do not comply with its technical or scientific quality standards and that do not apply to one of the topics listed in Section C.

Authors will be informed by ~~28 February 2022~~ **19 April 2022** as to whether their submission has been accepted, either orally or as a poster, for presentation at the conference. Accepted abstracts will also be reproduced in an unedited electronic compilation of Abstracts which will be made available to all registered participants of the conference.

Authors will be asked to provide an extended abstract (3 to 5 pages) by ~~30 April 2022~~ **20 May 2022.** Longer manuscripts will only be accepted at the discretion of the Secretariat and only in exceptional cases. Guidelines and a template for the preparation and submission of the extended abstract will be available on IAEA-INDICO.

G.3 Proceedings

Following the conference, the IAEA will publish a summary report. The proceedings will be made available to read online.

H. Participation and Registration

All persons wishing to participate in the event must be designated by an IAEA Member State or should be member of an organization that has been invited to attend. The list of IAEA Member States and invited organizations is available on the event web page (see Section Q).

Registration through the InTouch+ platform:

1. Access the InTouch+ platform (https://intouchplus.iaea.org):

- Persons with an existing NUCLEUS account can **sign in here** 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 'Basic Profile' (if no financial support is requested) or under 'Complete Profile' (if financial support is requested) and upload the relevant supporting documents;
- Search for the relevant event (**EVT2005410**) 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 Conference.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 Participation Form (Form A), Form for Submission of a Paper (Form B) and/or 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 form(s) will automatically be sent to the IAEA through the online platform.

NOTE: Should prospective participants wish to submit a paper or request financial support, the application needs to be submitted by the specified deadlines (see section O).

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.

If it is not possible to submit the application through the InTouch+ platform, prospective participants are requested to contact the IAEA's Conference Services Section via email: Conference.Contact-Point@iaea.org.

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.

I. 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 conference. The IAEA has, however, limited funds at its disposal to help cover 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 conference.

If participants wish to apply for a grant, they should submit applications to the IAEA using the InTouch+ platform through their competent national authority (see Section H). Participants should ensure that applications for grants are:

1. Submitted by ~~31 December 2021~~ ~~31 January 2022~~ **15 March 2022**;

2. Accompanied by Grant Application Form (Form C); and

3. Accompanied by Participation Form (Form A).

Applications that do not comply with the above conditions cannot be considered.

Approved grants will be issued in the form of a lump sum payment that usually covers **only part of the cost of attendance**.

J. Distribution of Documents

A preliminary and final programme will be made available on the conference web page (see Section Q) prior to the start of the conference. The electronic compilation of abstracts will be accessible free of charge to participants registered for the conference.

K. Exhibitions

A limited amount of space will be available for commercial vendors' displays/exhibits during the conference. Interested parties should contact the Scientific Secretariat by email NKM-HRD2022@iaea.org by **31 January 2022**.

L. Working Language

The working language of the conference will be English. All communications must be sent to the IAEA in English.

M. Venue and Accommodation

The conference will be held at the Hyatt Regency Moscow Petrovsky Park Hotel in the Russian Federation. Detailed information on accommodation and other relevant matters will be sent to all designated participants approximately three months before the conference. This information will also be made available on the conference web page.

N. Visas

Designated participants who require a visa to enter the Russian Federation should submit the necessary application to the nearest diplomatic or consular representative of the Russian Federation as soon as possible. Further advice and instructions will be made available on the IAEA web page for the conference (see Section Q).

O. Key Deadlines and Dates

Submission of abstracts through IAEA-INDICO	~~31 December 2021~~ ~~31 January 2022~~ **15 March 2022**
Submission of Form B (together with Form A) through the InTouch+ platform	~~31 December 2021~~ ~~31 January 2022~~ **15 March 2022**
Submission of Form C (together with Form A) through the InTouch+ platform	~~31 December 2021~~ ~~31 January 2022~~ **15 March 2022**
Notification of acceptance of abstracts for oral or poster presentation	~~28 February 2022~~ **19 April 2022**
Electronic submission of extended abstracts through IAEA-INDICO	~~30 April 2022~~ **20 May 2022**
Submission of Form A only (no paper submission, no grant request) through the InTouch+ platform	**No deadline**

P. Conference Secretariat

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Subsequent correspondence on scientific matters should be sent to the Scientific Secretaries and correspondence on administrative matters to the IAEA's Conference Services Section.

Q.Conference Web Page

Please visit the IAEA conference web page regularly for new information regarding this conference.