

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



Monday 15 June 2020 - Friday 19 June 2020

Scientific Programme

Scientific Programme

The objective of the conference is to review the global situation in human resources development and nuclear knowledge management, consider the current and future challenges and opportunities. It will provide participants with practical solutions that they can use to develop and maintain the human resources needed to support safe, secure and sustainable nuclear power programmes. Various issues related to specific human competencies, methodological or process knowledge and technology-related knowledge management will also be addressed.

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.

Topics to be addressed in the presentations are: □
Strategies and policies to support NKM; □
Knowledge management methodologies and implementation approaches; □
Knowledge management across the nuclear operating lifecycle; □
Knowledge management for nuclear regulatory organizations; □
Knowledge management for non-power nuclear science and applications;
Knowledge management in nuclear technology research, development and innovation; □
Internal/external collaboration for knowledge management; and □
Organizational culture to support knowledge management.

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. Topics to be addressed in the presentations are:

Nuclear education and outreach; □
Building a learning culture in nuclear organizations and regulators; □
Human resources planning to support building and maintaining a workforce; □
Competency mapping and management;
Training, certification and continued professional development along with performance monitoring and improvement; □
Roles and responsibilities related to human resources and leadership functions within the nuclear organization and regulators;
Networking and technical communities of practice.

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 on the following topics:

Simulators for education and training of a nuclear workforce; □
Plant information models; □
Understanding how to plan and improve the digitalization strategy; □
Smart digital tools to enhance existing training programmes or support the establishment of new

training programmes; □
Potential digital technology to transform industry and businesses.

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. Topics to be addressed in this session are:

Strengthening the role of nuclear knowledge and information management;

Knowledge organization systems; □

Technology to support new trends in information, records and data management;

Managing big data for analytics and transformation; □

Exploring data and disruption for nuclear plant operators;

Predictive analytics and new opportunities.