

# Job Description for Professional Posts

**Reference:**NA2025/22

<b>Position and Grade:</b>	Associate Nuclear Data Scientist (Nuclear Structure and Reaction Data), P2
<b>Organizational Unit:</b>	Data Development Unit Nuclear Data Section Division of Physical and Chemical Sciences
<b>Duty Station:</b>	Vienna, Austria
<b>Type/Duration of Appointment:</b>	FT – JPO, 1 year

## Organizational Setting

The Nuclear Data Section (NDS) is one of four Sections in the Division of Physical and Chemical Sciences (NAPC) within the Department of Nuclear Sciences and Applications. The Section is responsible for the collection, evaluation, and dissemination of accurate and reliable nuclear data to support research and development in the nuclear field. The activities of the Section include data compilation, evaluation and curation, standards development, database establishment and technology transfer.

The mission of the Data Development Unit (DDU) within the NDS is to enhance the competencies of Member States in the fields of nuclear energy, radiation protection, medical applications, and environmental studies through the provision of internationally recommended nuclear data libraries and participation in international collaborations and working groups to promote standardization and quality assurance in the evaluation and dissemination of nuclear data.

The operating environment is dynamic, collaborative, and international. The DDU has ongoing collaborations with research laboratories and data centres in many Member States and coordinates its activities within established networks and coordinated research projects.

## Main Purpose

As a member of the Data Development Unit within the Nuclear Data Section the Associate Data Scientist provides support to the work of the Section in the compilation, evaluation, and dissemination of nuclear structure and decay data, nuclear reaction data, and data for the characterization of ion-matter interactions. He/she will have hands-on experience in (i) exploitation of experimental nuclear data, (ii) modelling and evaluation of nuclear data, as well as in (iii) programme development and database management for a wide range of nuclear data, under the guidance of senior professionals.

## Role

The Associate Data Scientist is: (i) a database developer, maintaining data libraries and developing their implementation as online services; and (ii) a team member, carrying out scientific or technical research to enable the exploitation of these data through evaluation, validation, and visualization.

## Partnerships

The Associate Data Scientist maintains professional contacts with IAEA scientific and technical staff and with external developers and users of nuclear data and ion-matter interaction data.

## Functions / Key Results Expected

Under close supervision of the Section Head and Data Development Unit staff, the Associate Data Scientist carries out the following responsibilities to address Member States' needs related to nuclear data and data for ion-matter interaction processes.

- Read journal literature in order to support nuclear data evaluation and modelling work.
- Carry out scientific and data analytic research including computational studies to support the evaluation and exploitation of nuclear data and data for ion-matter interaction processes.
- Contribute to implementation of database development needs linked to the above subjects.
- Participate in other daily activities within the Section as required and assigned by the Section Head.

## Competencies and Expertise (do not revise or edit)

Core Competencies		
Competence	Occupational Role	Behavioural Indicator
Communication	Individual Contributor	Communicates orally and in writing in a clear, concise and impartial manner. Takes time to listen and understand the perspective of others and proposes solutions.
Achieving Results	Individual Contributor	Takes initiative in defining realistic outputs and clarifying roles, responsibilities and expected results in the context of the Department/Division's programme. Evaluates his/her results realistically, drawing conclusions from lessons learned.
Teamwork	Individual Contributor	Actively contributes to achieving team results. Supports team decisions.
Planning and Organizing	Individual Contributor	Plans and organizes his/her own work in support of achieving the team or Section's priorities. Takes into account potential changes and proposes contingency plans.

Functional Competencies		
Competence	Occupational Role	Behavioural Indicator
Analytical Thinking	Associate	Gathers and analyses information, identifying critical relationships and patterns among data and proposes workable solutions.

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Knowledge sharing and learning	Associate	Actively seeks opportunities to learn by formal and informal means; learns from others, adopting and sharing best practice.
Technical/scientific credibility	Associate	Acquires and applies new skills to remain up to date in his/her area of expertise. Reliably applies knowledge of basic technical/ scientific methods and concepts.

<b>Expertise</b>	
<b>Expertise</b>	<b>Description</b>
Information Technology/Computer Programming	Experience with numerical programming in a modern programming language such as Python or C++ is required.
Information Technology/Database management	Experience with database management.
Information Technology/Data Modelling	Experience with the development of nuclear models and statistical methods, data visualization tools; experience with Machine-Learning algorithms would be an advantage/Asset

## **Education, Experience and Language Skills**

- University degree in Physics, Chemistry, Computer Science, Engineering or a related field.
- Minimum two years of professional experience in scientific research involving a significant component of numerical data analysis and software development in a modern programming language.
- Experience in international cooperation with proven ability to participate effectively in a multinational and multidisciplinary team with sensitivity and respect for diversity.
- Excellent oral and written command of English. Knowledge of other official IAEA languages (Arabic, Chinese, French, Russian and Spanish) is an asset.

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