

Job Description for Professional Posts

Reference:NA2024/18

Position and Grade:	Associate Project Officer (Instrumentation), P2
Organizational Unit:	Nuclear Sciences and Instrumentation Laboratory Physics Section Division of Physical and Chemical Sciences
Duty Station:	Seibersdorf
Type/Duration of Appointment:	FT – JPO, 1 year with possibility of extension

Organizational Setting

The Department of Nuclear Sciences and Applications implements the IAEA's Major Programme 2, "Nuclear Techniques for Development and Environmental Protection". This Major Programme comprises individual programmes on food and agriculture, human health, water resources, environment and radiation technologies. These programmes are supported by laboratories in Seibersdorf, Monaco and Vienna. The Major Programme's objective is to enhance the capacity of Member States to meet basic human needs and to assess and manage the marine and terrestrial environments through the use of nuclear and isotopic techniques in sustainable development programmes.

The Division of Physical and Chemical Sciences is responsible for assisting and advising Member States in research and development for the nuclear sciences, especially the physical and chemical sciences. Specifically, the Division provides support to Member States in the following fields: production of radioisotopes and radiolabelled products for applications in health care and industry; radiation source applications; research reactor utilization; applications of accelerators and nuclear instrumentation; nuclear and atomic data for applications; controlled nuclear fusion and isotope hydrology and geochemistry.

The Physics Section is responsible for planning and implementing activities in the areas of (i) effective utilization of research reactors, (ii) fostering relevant research and development and applications using particle accelerators and related instrumentation, and (iii) plasma physics and fusion, in order to enable Member States to avail themselves of the benefits of nuclear sciences and technologies. It operates the Nuclear Science and Instrumentation Laboratory, located at the Agency's Laboratories in Seibersdorf, which assists laboratories in Member States to improve the effective utilization of nuclear spectrometry and related instrumentation by providing technical advice, training, calibration services, assistance with the modification and development of nuclear instruments and with new applications of nuclear

spectrometry techniques in various fields, including energy related applications, environmental monitoring, industry, and the study of cultural heritage objects.

Main Purpose

As a member of a team led by a Laboratory Head, Associate Project Officer provides direct support to the development and implementation of IAEA activities to increase relevant capabilities within interested Member States for capacity building in the area of mobile and airborne radiation detection and gamma spectroscopy instrumentation. The Associate Project Officer will be involved in the implementation, activity development and utilization of backpack- and drone-based techniques for radiological mapping purposes.

Role

The Associate Project Officer fulfils several roles within the team: (i) a technical specialist, providing technical advice and support to the Laboratory Head on utilization and applications of backpack- and drone-based techniques for radiological mapping; (ii) a team member coordinating and implementing IAEA activities under the direct oversight of the Laboratory Head covering a broad range of activities such as education and training, presentation and demonstration of current technology, participating on hardware and software development, performing radiation experiments and tests, etc.; (iii) a facilitator, encouraging internal and external cooperation and development through communication with both IAEA and external project stakeholders; (iii) a technical writer producing and reviewing documents relating to mobile and airborne radiation detection technology and other field measurement techniques; and a team member of IAEA missions to interested Member States working to address relevant challenges and issues associated with utilization and applications of backpack- and drone-based techniques for radiological mapping.

Partnerships

The Associate Project Officer provides technical advice and coordinates detailed activities under the overarching guidance of the Laboratory Head on utilization and applications of backpack- and dronebased techniques for radiological mapping to internal and external stakeholders, including IAEA programme managers in other sections and departments on programmatic and cross-cutting issues and initiatives.

Functions / Key Results Expected

- Under the direct guidance of the Laboratory Head:
 - Implement the IAEA's activities on utilization and applications of backpack- and dronebased techniques for radiological mapping to meet IAEA programmatic objectives.
 - Gather and provide information, advice and guidance on applications of backpack- and drone-based techniques for radiological mapping and related technical projects.
- Support projects in the subject area; evaluate proposals, plan and implement activities; prepare and monitor contracts for the supply of goods and services such as laboratory equipment, external assistance or research; and review the results achieved.
- Within the scope of relevant projects, initiate, plan and conduct meetings for Member States to

review and discuss utilization and applications of backpack- and drone-based techniques and their challenges. Undertake studies and comparative assessments of various specific issues and present conclusions, recommendations, lessons learned, etc.

- Coordinate/liaise with external institutions and stakeholders; gather, maintain and apply knowledge of international good practices and future trends in the subject area.
- Contribute to the development of documents and technical reports on important aspects of project activities related to utilization and applications of backpack- and drone-based techniques for radiological mapping and update IAEA publications and initiate database in the subject area.

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.		

Competencies and Expertise (do not revise or edit)

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.		
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.		

Expertise		
Expertise	Description	
Physics/Nuclear Physics	Good knowledge of nuclear physics or related field with emphasis on gamma spectroscopy and related techniques for in-situ radiological surveys and mapping	

Education, Experience and Language Skills

- University degree in nuclear physics, nuclear engineering, radiation protection or related field;
- Minimum two years of professional experience in the area of applications of radiation detectors and gamma spectroscopy in the field of radiological surveys. Experience in use of backpack- and drone-based techniques and methodologies for radiological mapping is an asset.
- Experience in international cooperation with proven ability to participate effectively in a multinational and multidisciplinary team with sensitivity and respect for diversity;
- Experience in technical writing in English for producing and reviewing documents in the subject area; Fluency in spoken and written English. Knowledge of any other official IAEA language (i.e. Arabic, Chinese, French, Russian or Spanish) would be an advantage.