

# **Job Description Print Report**

Position Review											
Position Number	173270	Position Type	CFE/JPO	Subject to	Yes	Subject to GD	Yes				
				Radiation							
Hyperion		Fund Type	EBR	Parent Position	018049 Team Leader (SGTS-TEF) 8						
Position Number											
Organization	SGTS-Technology	FTE	1	CCOG 1	1A05B						
	Engineering and										
	Foresight Team										
Grade	Р3	Duty Station	Vienna, Austria	CCOG 2	1J07						
Classified Grade		Position Title	Engineering and Foresight	Proposed New							
			Officer	Title							
Master Version		Master Status	Approved	Approval Date							
Position Version		Position Status	Not Initiated	Approval Date							

## Job Description Review

### Organization Settings

The Department of Safeguards carries out the IAEA's duties and responsibilities as the world's nuclear inspectorate, supporting global efforts to stop the spread of nuclear weapons. The primary role of the Department is to develop and implement IAEA safeguards to ensure that there is no diversion of declared nuclear material from peaceful activities and no indications of undeclared nuclear material or activities in a State as a whole.

The Department comprises nuclear safeguards inspectors, responsible for carrying out inspections and verifications of all-safeguards relevant information for nuclear facilities in over 180 States; and technical staff responsible for a wide range of activities including: developing concepts and approaches for implementing safeguards; developing and maintaining safeguards equipment; providing analytical and laboratory services for sample analysis; collecting, evaluating and analysing safeguards-relevant information; providing information and communication technology infrastructure and services; and providing programme coordination support.

The Division of Technical and Scientific Services ensures the provision of state-of-the-art equipment and related expertise for the accomplishment of the Department of Safeguards activities. Within this mandate, the Division is responsible for procurement, testing, provision, inventory control, performance monitoring and maintenance of safeguards equipment and supplies required by SGO Divisions; management of equipment development and engineering activities to meet quality and safeguards requirements; development and provision of documentation, procedures, instrumentation methods and techniques; provision of specialized technical and scientific support to inspectors and inspection activities in the field and at headquarters; and, radiation contamination monitoring of returned equipment and timely write-off of obsolete or contaminated equipment. The Division also coordinates departmental health and safety activities.

### Main Purpose

Reporting to the Team Leader, and under the guidance of the Technology Foresight Specialist, the Engineering and Foresight Officer enhances methods and technologies related to the new generation of Cherenkov view devices (XCVD and RCVD), identifies emerging technologies, and develops new instruments aiming at improving the capabilities of the Department to verify the correctness and completeness of declarations provided by Member States.

### Role

The incumbent is: (1) an engineer, undertaking prototyping or proof of concept developments focusing on the introduction of emerging technologies for safeguards implementation; (2) a project manager, for technical projects and tasks related to the technology foresight function through internal or contracted activities and tasks under Member State Support Programmes; (3) a technical writer, developing high quality technical documentation; and (3) an advisor, evaluating diversified sources of information to identify, evaluate and report on technologies suitable to enhance IAEA technological capabilities.

### Partnership

The incumbent liaises with IAEA inspectors to identify their operational needs, with procurement officers to prepare technical requirements and evaluate technical proposals, and with external technology providers to manage the development of new instruments.

### Functions / Key results Expected

- Develop test protocols
- Carry out hardware and software tasks related to instrumentation developments.
- Manage hardware and software projects involving third-party technology providers.
- Develop and write technical documents, including technology evaluation reports, technical specifications and technical project roadmaps.
- Contribute to the introduction of advanced technologies into the field by providing expert advice and technical assistance to end-users, continuously improving the pool of prototypes and preparing the required technical documentation.
- Analyze open source technical literature to identify emerging technologies with the potential to support and strengthen IAEA safeguards implementation.

### **Generic JD Remarks**

Competencies									
Core Competencies									
Competency	Occupational Role	Definition							
Communication	Individual Contributor	Communicates orally and in writing in a clear, concise and impartial manner. Takes time to listen to and							
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											
Competency Occupation		nal Role	Definition								
Client orientation Specialist			Helps clients to analyse their needs. Seeks to understand service needs from the client's pe	erspective and							
			ensure that the client's standards are met.								
Commitment to continuous process Specialist			Plans and executes activities in the context of quality and risk management and identifies opportunities for								
improvement			process, system and structural improvement, as well as improving current practices. Analyses processes and procedures and proposes improvements								
Technical/scientific credibility Specialist			Ensures that work is in compliance with internationally accepted professional standards and scientific								
Specialist Specialist			methods. Provides scientifically/technically accepted information that is credible and reliable.								
Expertise											
Expertise		Description									
Nuclear Engineering   Instrumentat Control Systems	ion and	Ability demonstrated by professional experience to lead the development of instrumentation and N control system.									
Information Technology   Computer		Demonstrated ability to develop software tools to test evaluate or implement emerging instrumentation.									
Programming		, <del>.</del>									
Information Technology   Informati	on	Expertise demonstrated by professional experience in the fields of computer vision and robotics is an									
Technology and Data Processing		asset.									
Information Technology   Project Mana	agement	Demonstrated expertise in Project Management (PM), and the use of PM tools. Familiarity with formal N									
		methodology required.									
Other Technical Engineering   Enginee	ring and	Managing technic	anaging technical projects using agile methodologies; systemic engineering practices; fast prototyping.								
Technology											
Publishing Technical writing		Ability to produce high quality technical documentation									
Position Specific FC	Occupation	nal Role	Definition								
		_									
Position Specific Expertise		Description									
Languages											
Languages			Asset Languages								
English			AFADIC								
			French								
			Russian								
			Spanish								
Qualification											
Qualification Title		Description									
Bachelor's Degree		University degree in Engineering, Nuclear Science, Physics or IT technologies									

Experience

- A minimum of five years of relevant professional experience at both national and international levels, including experience with development of instrumentation and associated data evaluation software tools, structured management of technical projects, production of high quality technical documentation.
- Experience in the area of Agile project management, computer vision, and robotics will be an asset.

# Job Description Remarks Job Description Remarks Requisition Contract Type Expected Start Date Duration Mobility Fully Competitive Recruitment Travel