



2020-IPR-GII7-FGIV-013989

**FG IV - Scientific Project Officer - Artificial Intelligence expert for nuclear safeguards and security applications**

<p><b>Position for:</b></p> <p><b>FGIV –Scientific Project Officer</b></p>	<p>As the science and knowledge service of the Commission, the mission of DG Joint Research Centre is to support EU policies with independent evidence throughout the whole policy cycle.</p> <p>The JRC is located in 5 Member States (Belgium, Germany, Italy, the Netherlands and Spain). Further information is available at: <a href="https://ec.europa.eu/jrc/">https://ec.europa.eu/jrc/</a></p> <p>The Nuclear Security Unit of the Directorate for Nuclear Safety and Security provides enabling research, technology and instruments for nuclear safeguards and security to inspection agencies, States and operators. Activities range from nuclear non-destructive analysis and process monitoring to containment &amp; surveillance, verification and detection technologies. In the coming years, the Digital Transformation will have a significant impact on Nuclear Safeguards implementation.</p> <p>Emerging technologies, such as artificial intelligence, machine learning and robotics, will create many opportunities for increasing the efficiency and effectiveness of nuclear safeguards inspectors and in nuclear security. In this reorganization, the Nuclear Security unit has identified artificial intelligence as one of the key areas of competence that is required in the future unit structure.</p> <p>The present position is in the Artificial Intelligence pole, where the jobholder will strengthen the unit’s activities on the Digital Transformation. S/He will explore applications of artificial intelligence also related to emerging technologies, such as machine learning, robotics and Virtual/Augmented Reality, to Nuclear Safeguards and Nuclear Security applications. The selected candidate will work on the development of new algorithms and systems supporting nuclear inspectors in the monitoring and verification of nuclear facilities and in detection systems for nuclear security.</p> <p>S/He will carry out underlying research and development activities and propose innovative solutions for processing safeguards sensor data, including (optical/3D) surveillance data and nuclear process measurements. Results are expected to be of high scientific quality and to be published on high level conferences and journals. The activities include the complete R&amp;D cycle from underlying research, to implementation of new systems and training for safeguards inspectors</p> <p>Qualifications:</p> <p>Essential:</p> <ul style="list-style-type: none"><li>• Master diploma in Computer Science (or equivalent)</li></ul>
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	<ul style="list-style-type: none"> <li>• A Ph.D. or at least five years professional experience in a field relevant to the position;</li> <li>• At least 5 years' experience in the area of artificial intelligence and machine learning, and its application to robotics and a solid mathematical background;</li> <li>• At least 5 years' experience in software development using relevant technologies such as C++ and Python;</li> <li>• At least 5 years' experience in research activities relevant for the post with a solid record of publications in international peer-reviewed journals.</li> </ul> <p>Advantage:</p> <ul style="list-style-type: none"> <li>• At least 2 years of experience in developing augmented and virtual reality applications;</li> <li>• At least 1 year experience in the development of verification and monitoring systems for nuclear safeguards;</li> <li>• Good knowledge of French or Italian.</li> </ul> <p>We look for an enthusiastic, motivated and passionate colleague, with a strong problem-solving attitude, proven communication skills, the ability to work in a team, the capacity to take initiatives and to work autonomously.</p> <p>A good command of English (B2), both oral and written is required.</p> <p>The Joint Research Centre is an equal opportunity employer and is committed to increasing the diversity of its staff. It welcomes applications from women and minority groups</p>
<b>Directorate Unit</b>	<p>Nuclear Safety and Security Nuclear Security</p> <p>Further information: <a href="https://ec.europa.eu/jrc/en/research-topic/nuclear-safeguards">https://ec.europa.eu/jrc/en/research-topic/nuclear-safeguards</a></p>
<b>Indicative duration</b>	36 months initial contract with possible renewals up to maximum 6 years
<b>JRC Site</b> <b>Country</b>	<p>Ispra</p> <p>Italy</p>
<b>Rules and eligibility</b>	<p>The candidate must be on a valid EPSO reserve list for Function Group IV contract staff.</p> <p>If you are not in any valid EPSO reserve list for Function Group IV contract staff, you can still apply by following these steps.</p> <p>You express your interest by applying to the CAST Permanent or to the permanent JRC Call for researchers.</p> <p>1. CAST Permanent: open-ended selection procedure to create a pool of candidates from which the institutions, bodies, offices and agencies of the European Union (EU) can recruit contract agents.</p>

[https://epso.europa.eu/documents/2240\\_en](https://epso.europa.eu/documents/2240_en)

2. JRC Call COM/1/2015/GFIV – Research: open-ended selection procedure to create a pool of candidates from which mainly the JRC can recruit contract agents FGIV as researchers. Details available at the link below:

<https://ec.europa.eu/jrc/en/working-with-us/jobs/vacancies/function-group-IV-researchers>

Only then you can apply for this specific position, through <http://recruitment.jrc.ec.europa.eu/?type=AX>

**Auxiliary contract staff:**

<https://ec.europa.eu/jrc/en/working-with-us/jobs/temporary-positions/contract-staff-members>

Article 3b of the Conditions of Employment of Other Servants of the European Union applies: the actual period of employment within the Commission under this type of contract, including any period under renewal, shall not exceed 6 years.

*Please note that in case a high number of applications is received only shortlisted candidates will be contacted.*