



2018-IPR-GII7-FGIV-010589

**FG IV – Scientific Project Officer - 3D Systems  
for Nuclear Facility Verification**

<p><b>Position for:</b></p> <p><b>FG IV – 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.</p> <p>The selected candidate will work on the development of new algorithms and systems supporting nuclear inspectors in the monitoring and verification of nuclear facilities. The systems use lidar, optical and other sensors to create 3D models at different scales, which are used for used for object identification and authentication; mapping and monitoring of nuclear facilities; and indoor localization.</p> <p>The project includes the development of algorithms for real time 3D localization in known environments and 3D mapping of unknown environments using a mobile mapping platform.</p> <p>Results are expected to be of high scientific quality and publishable on high level conferences and journals.</p> <p>Qualifications:</p> <ul style="list-style-type: none"><li>• Completed university studies of at least three years attested by a diploma and a Ph.D. or at least five years professional experience in a field relevant to the position;</li><li>• Broad knowledge in the area of 3D computer vision and robotics and a solid mathematical background is essential;</li><li>• Extensive experience in implementing related algorithms in C++ using libraries such as OpenCV and OpenGL is essential;</li><li>• Good oral and written communication skills in English (B2) are essential, knowledge of other languages is an advantage;</li><li>• Solid record of research activities relevant for the post including publications in international peer-reviewed journals is an advantage.</li></ul> <p>In addition, the following elements will be considered as an advantage:</p> <ul style="list-style-type: none"><li>• Ability to work in a team and multi-cultural environment;</li><li>• The candidate is expected to be creative and work independently.</li></ul>
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<b>Directorate Unit</b>	Nuclear Safety and Security Nuclear Security  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>
<b>Indicative duration</b>	36 months initial contract with possible renewals up to maximum 6 years
<b>JRC Site</b>  <b>Country</b>	Ispra  Italy
<b>Rules and eligibility</b>	<p>The candidate must be on any valid EPSO reserve list for Function Group IV contract staff.</p> <p>Applicants to the following Calls for expression of interest can also be considered:</p> <ol style="list-style-type: none"> <li>1. CAST Permanent - EPSO has launched in January 2017 an 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. Details available at the link below: <a href="https://epso.europa.eu/documents/2240_en">https://epso.europa.eu/documents/2240_en</a></li> <li>2. Call COM/1/2015/GFIV – Research - The JRC has launched in January 2015 a permanent call for researchers FG IV. Details available at the link below: <a href="https://ec.europa.eu/jrc/en/working-with-us/jobs/vacancies/function-group-IV-researchers">https://ec.europa.eu/jrc/en/working-with-us/jobs/vacancies/function-group-IV-researchers</a></li> </ol> <p><b>Auxiliary contract staff:</b>  <a href="https://ec.europa.eu/jrc/en/working-with-us/jobs/temporary-positions/contract-staff-members">https://ec.europa.eu/jrc/en/working-with-us/jobs/temporary-positions/contract-staff-members</a></p> <p>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.</p> <p><i>Please note that due to the high number of applications received only shortlisted candidates will be contacted.</i></p>