



2021-IPR-GII7-FGIV-018790

**FG IV - Project Officer - Scientific / Technical
Support Officer - Expert in distributed ledger
technology for nuclear safeguards****POSITION FOR:**

Member of the contract staff FGIV – art. 3b of the Conditions of Employment of Other Servants
<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:1962R0031:20110101:EN:PDF>

WE ARE:

As the science and knowledge service of the Commission, the mission of DG Joint Research Centre (JRC) is to support EU policies with independent evidence throughout the whole policy cycle.

The JRC is located in 5 Member States (Belgium, Germany, Italy, the Netherlands and Spain). Further information is available at: <https://ec.europa.eu/jrc/>

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 & surveillance, verification and detection technologies. The Nuclear Security unit provides support to Euratom and IAEA inspectorates. Nuclear safeguards are facing new challenges related to the increasing amounts of materials and new facilities to be safeguarded, but also to the next generation of nuclear systems under development. New systems, new fuel cycles, new challenges: a global approach to nuclear safeguards calls for investigating in new technologies and approaches.

Further information is available at: <https://ec.europa.eu/jrc/en/research-topic/nuclear-safeguards>

WE PROPOSE:

The present position is for an expert who will investigate further the potential application of distributed ledger technology in nuclear safeguards.

The expert will take over from a successful [exploratory research project](#) of recent publication, (p. 60) that demonstrated the possible benefit of some properties of distributed ledger technology in specific areas of nuclear safeguards such as nuclear material accountancy and containment & surveillance. The position will be in the Data Pole and the expert will be available to consider the application of distributed ledger technology to other research areas of the unit.

WE LOOK FOR:

Essential:

- Completed university studies of at least three years attested by a diploma and at least five years professional experience in a field relevant to the position such as electronics, computer science, ICT, engineering, or equivalent. Alternatively a doctoral diploma in the same fields.
- At least 5 years' experience demonstrating the capacity to analyse in detail business processes; knowledge of Industrial Internet of Things, data acquisition and data fusion techniques;
- Knowledge of at least one of the following programming languages: C, C++, Go, Java;
- Knowledge of at least one of the following scripting languages: Python, Javascript
- At least 2 years' experience in hands-on deployment of Proof of Concepts and prototypes based on DLT and familiarity with the most widespread blockchain and distributed ledger technologies currently used (i.e. Bitcoin, Ethereum, Algorand, Hyperledger Fabric), their internal mechanisms and their differences.
- Excellent analytical and communication skills and proactive attitude; good oral and written communication skills in English (B2), the ability to work in a team and in a multi-cultural environment.

Advantage

- At least 1 year experience in building knowledge of Solidity would be an advantage;
- Less than 1 years' experience in building knowledge about the nuclear fuel cycle and the nuclear safeguards framework, and insight on nuclear safeguards inspector tasks;
- Less than 1 years' experience in building knowledge of signal processing,
- Knowledge of French or Italian language is an advantage.

INDICATIVE CONTRACT'S DURATION:

36 months initial contract with possible renewals up to maximum 6 years.

PLACE OF WORK:

Ispra (IT)

ELIGIBILITY CRITERIA:

Candidates for this contract agent post shall:

– (i) have passed a valid EPSO CAST selection procedure;

or

– (ii) be registered in the EPSO Permanent CAST https://epso.europa.eu/documents/2240_en

or

- (iii) be registered in the specialised call for researchers <https://ec.europa.eu/jrc/en/working-with-us/jobs/vacancies/function-group-iv-researchers> (used mainly by the JRC).

With a valid application number to one of the above, you may then apply for this specific vacancy at JRC through: <http://recruitment.jrc.ec.europa.eu/?type=AX>.

RECRUITMENT POLICY:

The Joint Research Centre

- Cultivates a workplace based on respect for other people and the environment.
- Embraces non-discriminatory practices and equality of opportunity. In case of equal merit, preference will be given to the gender in minority.