



2021-IPR-E3-FGIV-017048

**FG IV – PROJECT OFFICER - CRYPTOGRAPHY
RESEARCHER**

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 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 current vacancy is with the Cyber and Digital Citizens' Security Unit, Space, Security and Migration Directorate, located in Ispra, Italy. The mission of the Unit is to strengthen trust and security of the European Citizen in a sustainable and inclusive ICT-based European society by scientific research on how emerging Information and Communication Technologies will impact the security and privacy of citizens' daily life. The unit works on risk mitigation, cyber security, cybercrime, data protection, privacy and on the associated legal and regulatory frameworks.

WE PROPOSE:

A Contractual Agent position FG IV in Ispra, Italy. The successful candidate will contribute to the activities of the Cyber and Digital Citizen Security Unit aiming at strengthening the citizen' security and privacy by exploring innovative forensic technologies to support the fight against organised crimes.

He/she will conduct scientific and technical studies in the area of cybersecurity and fight against cyber-dependent crime domains to support the new strategic agenda 2019-2024 and its first priority: Protecting citizens and freedoms.

The successful candidate will carry out the following tasks:

- Study and develop targeted technics in order to address the challenge of encryption within criminal investigation;
- Explore the possibilities offered by emerging and future technologies such as quantum computers;
- Contribute to and support the scientific organization of workshops with community, industry and academy stakeholders;
- Prepare scientific papers and technical reports.

WE LOOK FOR:

The successful candidate shall have a PhD degree - or a minimum of 5 years of full-time research or working experience after the first University degree giving access to doctoral (PhD) studies in the field of applied mathematics, cryptography, computer science, or machine learning and deep learning techniques, or similar.

Solid knowledge and experience are required in

- Mathematics and more particularly cryptography or multi-linear algebra;
- Machine learning and deep learning;
- Ability to work in a multilingual and multicultural environment;
- English language, at least C1 level both oral and written.

The following knowledge or experience are an asset:

- Experience with digital forensic techniques
- Experience with High-Performance Computing platform

- Good knowledge of programming languages such as C/C++/C#, Python, MATLAB;
- Knowledge of quantum programming and simulation
- Knowledge of machine learning libraries such as OpenCV, libSVM, Tenfonsorflow/Theano/Keras;
- Relevant publications in peer-reviewed journals and international security conferences

INDICATIVE CONTRACT'S DURATION:

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

PLACE OF WORK:

Ispra (IT)

RULES AND ELIGIBILITY:

To be eligible for the position, the candidate must be on a valid EPSO reserve list for Function Group IV contract staff.

You can be added to an EPSO reserve list if you complete successfully an EPSO selection procedure.

Candidates who are on a valid EPSO reserve list or have applied to an EPSO selection procedure can apply to this specific position through <http://recruitment.jrc.ec.europa.eu/?type=AX>.

How to apply to an EPSO selection procedure?

Apply either to the permanent EPSO call (CAST Permanent) https://epso.europa.eu/documents/2240_en or a specialised call for researchers <https://ec.europa.eu/jrc/en/working-with-us/jobs/vacancies/function-group-IV-researchers>

The CAST Permanent reserve list is used by a wide range of organisations (institutions, bodies, offices and agencies of the European Union), whereas the specialised reserve list for researchers (JRC Call COM/1/2015/GFIV – Research) is mainly used by the JRC.

RECRUITMENT POLICY:

The JRC

- 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.