



EUROPEAN COMMISSION

JOINT RESEARCH CENTRE

2022-IPR-E3-FGIV-019588

**FG IV -Project Officer - Scientific Research - Network
Cybersecurity 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 (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 current vacancy is in the Cyber and Digital Citizen Security Unit of the 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. The successful candidate will contribute to the research activities of the Digital Citizen Security Unit in the field of network cybersecurity and Next Generation Internet.

S/he will conduct scientific, technical assignments and policy studies focused on network cyber-security, and analysis of Internet network communication standards (including secure email communications, web communications, DNS and routing protocols). It will also support research activities on Artificial Intelligence and Data Protection.

The successful candidate will carry out of the following tasks:

- Security analysis of Internet network communication protocols and standards, including Internet infrastructure (including IPv6, DNSSEC, RPKI, MANRS, DoH, DoT), email security standards (STARTTLS, SPF, DKIM, DANE) and web communications (HTTPS, QUIC, etc).
- Develop policy studies analysing the level of deployment of Internet standards, identifying barriers of adoption, assessing consequences of lack of adoption and proposing possible actions.
- Design, development and maintenance of tools and web applications to analyse the level of adoption of these standards and evaluate their deployment from a cybersecurity perspective.
- Collaboration with standardisation committees, and presentation of results in international meetings and conferences.
- Contribute to the project research activities on AI and Data Protection
- Preparation of 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 work experience after the first University degree giving access to doctoral (PhD) studies in the field of: Information and Communication Technologies, Computer Science, Engineering or equivalent.

The following qualifications are also required:

- Extensive research experience on network cybersecurity and Internet network communication standards (including secure email communications, web communications, DNS and routing protocols)
- Solid programming skills in Python for the development of scientific applications, secure web applications and Internet services
- Ability to work in a multi-national team

- Good level (min. B2) of spoken and written English.

The following qualifications are an asset:

- Relevant publications in peer-reviewed conferences and journals;
- Experience GNU/Linux system administration and network administration (including firewalls and switches).
- Experience participating in the development of Internet standards
- Programming skills in other languages: C, Rust, .NET, Matlab
- Experience in the application of machine learning techniques to cybersecurity applications

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.