EUROPEAN COMMISSION

JOINT RESEARCH CENTRE

2021-IPR-A5001-FGIV-018748

FG IV - SCIENTIST - EXPLORATORY RESEARCH PROJECT - *AI-enhanced Agro-Climate Service (AIACS)*

POSITION AS:
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 JRC offers a vacancy for a Contract Agent within the Exploratory Research Project "AI-enhanced Agro-Climate Service" (AIACS). The JRC Exploratory Research Programme (ER) is a strategic initiative characterised by ideas that might lead to novel results and qualitatively enrich current JRC scientific work.

The ER project AIACS is a collaboration between the Directorates for Sustainable Resources and for Space Security and Migration that play a central role in creating, managing and making sense of scientific knowledge for EU policies related to the sustainable use of resources, disaster risk management and resilience. The operational scientific research will take place in the Food Security unit and in the Disaster Risk Management unit.

Further information is available at: https://ec.europa.eu/jrc/en/science-areas

The Scientific Development unit is in charge of the overall JRC Exploratory Research Programme.

WE PROPOSE:
A position to carry out scientific and technical tasks in accordance with the Exploratory Research Project "AI-enhanced Agro-Climate Service" (AIACS) with special emphasis on AI methods for the detection and characterization of unfavourable climate conditions and extremes and for informed decision support.

The ER Project AIACS will develop an innovative AI-enhanced climate service prototype able to digest, analyse and interpret all available data and information to monitor and predict unfavourable climate conditions and climate extremes. Furthermore, the project will develop a first farm digital twin, together with dedicated methodologies to upscale the derived information, to gain better understanding and predictive skill on the effects of unfavourable climate conditions and the role of risk-reduction strategies. The prototype will be tested and applied in the agro-climatic context and evaluated against the current JRC monitoring and forecasting systems.

The successful candidate will:

- Evaluate the applicability of existing AI approaches;
- Develop and implement dedicated AI methods;
- Analyse big agro-climatic data sets;
- Perform simulations to test and quantify the added value of the AI-enhanced climate service;
- Design, develop and implement a farm digital twin;
- Provide regular and accurate reports on scientific activities every twelve months and a final report;
- Report to the Project Leader on progress, achievements and potential problems in a timely manner;
- Provide feedback and maintain interactive communication with colleagues;
- Explain the research activities and achievements to third parties, such as scientific

communities and the general public;
- Write, disseminate and publish results, among other, in peer-reviewed journals.

WE LOOK FOR:
A scientist with the following qualifications:

- A doctoral diploma in Mathematics, Physics, Engineering, Environmental Sciences or related field, alternatively 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;
- Extensive knowledge/experience in Machine Learning/AI approaches is essential;
- Broad knowledge in the area of Big Data analysis and programming is essential;
- Knowledge of agro-climate science and statistics is an advantage;
- Solid record of research activities relevant for the post including publications in international peer-reviewed journals is an advantage;
- Good oral and written communication skills in English (B2) are essential, knowledge of other languages is an advantage.

In addition, the following competences will be considered as an advantage:

- Ability to work in a team and in a multi-cultural environment;
- The candidate is expected to be creative and work independently.

EMPLOYMENT CONTRACT DURATION:
24 months employment contract for the Exploratory Research project "AI-enhanced Agro-Climate Service" (AIACS).

Employment contracts for Contract Agents can be renewed for maximum 6 years.

PLACE OF WORK:
Ispra, Italy

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 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.