

CONTRACT Ref: 93/2021

Requirements to participate in the call:

-Have Spanish nationality or work permit, or some other nationality that allows access to public sector employment. If you do not have it and this person is selected, the contract will not be formalized until the corresponding documentation is in order. In the event that this procedure is not finally completed within two months of the grant the selected person cannot be hired; leaving, in this case, the square deserted or referred to the next person in the event that priority order has been given in the Resolution.

- Be 16 years old and not exceed, where applicable, the maximum age of forced retirement or the other age that you may establish by law.

-The Foundation and/ or the Tribunal, for reasons of interest to the entity, may at any time withdraw the resolution or cancellation of this Call, without any justification.

Research Project Title: PRAETORIAN. Protection of Critical Infrastructures from advanced combined cyber and physical threats.

PRAETORIAN: Protection of Critical Infrastructures from advanced combined cyber and physical threats. Strategic goal is to increase the security and resilience of European CIs, facilitating the coordinated protection of interrelated CI against combined physical and cyber threats. To that end, the project will provide a multidimensional (economical, technological, policy, societal) yet installation-specific toolset comprising: (i) a Physical Situation Awareness system, (ii) a Cyber Situation Awareness system; (iii) a Hybrid Situation Awareness system, which will include digital twins of the infrastructure under protection; and (iv) a Coordinated Response system. The PRAETORIAN toolset will support the security managers of Critical Infrastructures (CI) in their decision making to anticipate and withstand potential cyber, physical or combined security threats to their own infrastructures and other interrelated CIs that could have a severe impact on their performance and/or the security of the population in their vicinity. The project will specifically tackle (i.e. prevent, detect, response and, in case of a declared attack, mitigate) human-made cyber and physical attacks or natural disasters affecting CIs. It will also address how an attack or incident in a specific CI can jeopardise the normal operation of other neighbouring/interrelated CIs, and how to make all of them more resilient, by predicting cascading effects and proposing a unified response among CIs and assisting First Responder teams.

PRAETORIAN is a CI-led, user-driven project, which will demonstrate its results in three international pilot clusters – some of them cross border – involving 9 outstanding critical infrastructures: 2 international airports, 2 ports, 3 hospitals and 2 power plants

Service/Unit/Accredited Group: UNIDAD MIXTA DE INVESTIGACION EN TICS APLICADAS A LA REINGENIERÍA EN PROCESOS SOCIOSANITARIOS (ERPSS),

Candidate requirements: *(All requirements are necessary to apply):*

University Degree Engineering and Architecture Master Degree in Data Sc

Merits to value: *(0-5 points)*

Demonstrated previous experience in massive unstructured data analysis (3 points). 1 point will be assigned to those applicants with a minimum of 2 years' experience gained after the completion of the university degree. For each additional year in which the applicant has performed this type of analysis 1 point will be assigned up to a maximum of 3 point. Applicants should briefly explain (5 lines or less) the extent of their involvement in the analyses and the type of analysis carried out. Work periods less than one year will be prorated by months.

- Demonstrated previous working experience in massive structured data analysis (0.5 points). 0.25 points will be assigned for each year in which the applicant has performed this type of analysis up to a maximum of 0.5 points.

- Demonstrated previous experience with relational databases (for example: PostgreSQL, MySQL...; 0.5 points)

0.25 points will be assigned for each year in which the applicant has worked with relational database up to a maximum of 0.5 points. Applicants should briefly describe (3 lines or less) their experience on this field. Working periods less than one year will be prorated by months.

- Demonstrated working experience in Real World Data projects (0.5 points). 0.5 points for each project in which the applicant has participated as a contracted researcher up to a maximum of 0.5 point and 0.25 points for each project in which the applicant has participated as a collaborating researcher up to a maximum of 0.5 point.

Applicants must indicate whether they have been involved as a contracted researcher or a collaborating researcher.

- Demonstrated working experience developing, testing and deploying predictive models (0.5 points). 0.25 points for each project in which the applicant has carried out these tasks up to a maximum of 0.5 points-

Curriculum vitae and Academic Track-Record (0-2 points)

Publishing Track Record (0.6 points). Scientific publications, belonging to the first or second quartile, in the field of Big Data, LNP or Machine Learning will be evaluated. Applicants must indicate the order of authorship, the impact factor of the journal and the quartile ranking in the year their article was published and the Digital Object Identifier. 0.2 or 0.1 points will be assigned for each publication, depending on the authorship position, up to a maximum of 0.6 points

Awarding research grants (excluding Erasmus grants aimed at the development of research projects in the field of Big Data, LNP, Intelligence Artificial or Machine Learning will be evaluated (0.5 points). 0.1, 0.2 or 0.5 points will be assigned for each competitive research grant funded by regional, national, European or international funding agencies, respectively up to a maximum of 0.5 points. Applicants must indicate the funding agency and the purpose of the research grant program.

Erasmus grants aimed at the development of research projects in the field of Big Data, Intelligence Artificial, Machine Learning or related to the required requirements will be evaluated (0.1 points).

Teaching experience in the field of Big Data, Intelligence Artificial, Machine Learning or related to the required requirements (0.4 points). 0.2 points will be assigned for each degree or Master's course given up to 0.4 points.

Communication to AI or Big Data congresses (0.4 points). 0.1 points will be assigned for each participation as first or second author up to a maximum of 0.4 points.

Other Merits: (Complementary Training) (0-1 point)

- High level of English language ability certified by an official body (C1: 0.1 point; C2: 0.2 points)
- Functional Diversity equal to or greater than 33%. (0.1 point). Applicants must enclose with the ir application a certificate attesting it.
- Hold a doctorate degree in a discipline in the field of Big Data, Intelligence Artificial, Machine Learning or related to the required requirements (0.3 points).
- Experience in European research projects as a full-research team member (0.2 points). 0.1 points will be assigned for each year up to maximum of 0.2 point. Contracts must have a minimum duration of 6 consecutive months.
- Working knowledge of healthcare databases. (0.2 points) 0.1 point will be assigned for each year up to maximum of 0.2 points. Contracts must have a minimum duration of 6 consecutive months.

Interview (from 0 to 2 points)

If applicable (an interview will be held if the difference between the first candidate and the second is equal to or less than two points)

Training/Roles to develop:

- Attend all the national and international PRAETORIAN meetings and present the corresponding reports and deliverables.
- Contribute and promote the European project publicity and results dissemination.
- Data management and data analysis.
- Support and supervision of the scientific and technical deliverables of the whole consortium of the European project
- Dissemination of scientific and technological knowledge generated within the context of the project.
- Use case and pilot scenario development and evaluation.

Contract/Fellowship characteristics:

- Part time 20 hours
- Amount: 15.384,00 €/gross year
- Lenght: 12 months

Deadline for application submission: 27/07/2021

Required documents On-Line www.iislafe.es

- Updated Curriculum Vitae.
- Academic record with average grade.
- Documents accrediting the required Academic Degree.
- Documentation that justifies all the merits outlined.

The accreditation of work experience must necessarily be done through Labor Life issued by the Social Security Treasury, accompanied by work contracts or a document admissible in law, which reliably certifies the profession and the work category. The Social Security contribution group of the work life report must be in accordance with the work category expressed in the work contract or equivalent document, in case of discrepancy, the one reflected in work life will be taken into account. Any labor certificate, payroll or contract will not be considered if it is not accompanied by working life.

** The documentation submitted for this open competition will be on deposit of IIS La Fe.*