

NOTICE OF OPENING OF AN INTERNATIONAL SELECTION PROCEDURE FOR THE RECRUITMENT OF A ONE ASSISTANT RESEARCHER

1. By order of 14-05-2021, the Dean of FEUP, Professor João Bernardo de Sena Esteves Falcão e Cunha, was deliberated to open an international selection procedure for the recruitment of 1 Assistant Researcher within the scope of Project, **SMARTCUT- “Diagnóstico e Manutenção Remota e Simuladores para Formação de operação e manutenção de Máquinas Florestais”** ref. POCI-01-0247-FEDER-048183, co-financed by European Regional Development Fund (ERDF), through the Operational Programme for Competitiveness and Internationalization (COMPETE 2020), under the PORTUGAL 2020 Partnership Agreement, in the form of an certain Term Employment Contract for the period of 12 months, eventually renewable, never exceeding the maximum limit of two years, under the Labor Code in its current version and Regulation nº 487/2020, of 22 May - Regulation of Research, Science and Technology Staff of the University of Porto, in its current wording.

2. The jury is composed as follows:

President: Prof. Gil Manuel Magalhães Andrade Gonçalves

Member: Prof. Fernando Manuel Ferreira Lobo Pereira

Member: Prof. António Pedro Rodrigues Aguiar

Substitute Member: Prof. Adriano Silva Carvalho

Substitute Member: Doutor João Pedro Correia dos Reis

3. Applicable Legislation: Labor Code, Law on 7/2009, of 12 February, in its current version and Regulation nº 487/2020, of 22 May - Regulation of Research, Science and Technology Staff of the University of Porto, in its current wording.

4. The work will be developed at the Lab DIGI2 -“Digital and Intelligent Industry” of the Research Center for Systems & Technologies (SYSTEC), R&D unit of Faculty of Engineering of the University of Porto (FEUP).

5. The monthly remuneration to be attributed corresponds to the 2nd remuneration position, level 4, provided in Annex I and Annex II, of the Regulation nº 487/2020, of 22 May - Regulation of Research, Science and Technology Staff of the University of Porto, in the amount of € 1.978,78 Euros, on full time.

6. General admission requirements: The applicants may be national, foreign and stateless candidates holding a Master degree in Master in Network and Systems Engineering, which constitutes the minimum admission requirement

If the Master's degree has been awarded by a foreign higher education institution, it must comply with the provisions of the Decree-Law no. 66/2018, of august 16th, and any formalities established there must be fulfilled until the time of signing the contract.

Special admission requirements: In order to determine the profile appropriate to the activity to be developed, the following criteria are defined: Candidates must have competences in data science, digital twin and machine learning applied to advanced production systems and previous experience, of more than 5 years, in national and international projects related to the area of advanced production systems, sensor networks and process optimization and in development and testing of concepts in industrial environment (demonstrators and "test-beds").

7. Functions to perform: The Research Assistant will develop, implement, and participate in research and development projects, under the guidance of a researcher or professor. The Researcher (Profile 13) will be part of the team of the project SMARTCUT executing and developing activities of support for the development of intelligent components, self-powered and wireless autonomous devices, modelling and integration of technological solutions in an industrial environment and dissemination of results, according to the guidelines of the project's Dissemination Plan.

Activities include Digital Twin, Cyber Physical Production Systems, Component Based Software Engineering, Machine Learning, IoT system development, networking expertise, databases, data structures, and algorithms.

In activity 2 the research assistant will contribute to the development of the Digital Twin, Digital Twin Management Platform and predictive diagnostic support methods. In activity 3, he will contribute to activities related to the development of the Digital Twin Module and Teleoperation interfaces. In activity 4 the research assistant will follow the tests carried out in the relevant environment. In activity 5 the research assistant will be responsible for writing scientific papers and disseminating results related to Digital Twin, predictive methods and telecare.

8. The selected Assistant researcher may also perform teaching and training activities.

9. Selection Criteria: In terms of the article 26 of the Regulation nº 487/2020, of 22 May - Regulation of Research, Science and Technology Staff of the University of Porto, the selection is made through the evaluation of the scientific and curricular career of the candidates.

10. The evaluation of the scientific and curricular path, taking into account the profile appropriate to the activity to be developed, focuses on relevance, quality, and current impact of:

a) scientific, technological, cultural or artistic production of the last five years, considered to be more relevant by the applicant to the recruitment and the applied research activities, or based on practice considered to be more relevant by the applicant to the recruitment area, namely Digital Twin, Cyber Physical Production Systems, Component Based Software Engineering, Machine Learning, IoT system development, networking expertise, databases, data structures, and algorithms;

b) activities of extension and dissemination of knowledge in particular in the context of culture and scientific practices promotion that are considered by the candidate to be of greater relevance; and the activities of management of science, technology and innovation programs, or the experience in observing and monitoring the scientific and technological system.

11. The Evaluation of the Scientific Career and Curriculum Vitae (ESCC), scored on a scale of 0 to 100 points, focuses on parts described below:

1. Scientific Career and Curriculum (SCC)

Assessment of the relevance, quality and current impact of scientific career and curriculum. This evaluation focuses on the parameters described below and the classification is obtained by: $SCC = 0.9 SC + 0.1 RA$.

1.1 Scientific Production (SC)

Assessment of the scientific production (SCV), over the last five years. The classification is obtained by: $SC = 0.9 SCV + 0.1 SCQ$.

Quantitative Evaluation (SCV): publications in ISI journals, in the area of preference (Digital Twin, Cyber Physical Production Systems, Component Based Software Engineering, Machine Learning, IoT system development, networking expertise, databases, data structures, and algorithms), SCV = up to 100 points; publications in related areas, SCV = up to 50 points; publications in other areas, SCV = 0 points.

Qualitative Evaluation (SCQ): the candidate must provide copies of up to 5 articles considered to be most relevant, SCQ = up to 100 points.

1.2 Extension and dissemination of knowledge Activities (RA)

- Evaluation of Extension and dissemination of knowledge Activities, developed in the last five years. This parameter includes (i) participation in R&D projects, services, and technology transfer and (ii) participation in science management and knowledge dissemination activities, including the organization of conferences, symposia, and scientific cooperation activities. Activities in the area of preference, RA = up to 100points; activities in related areas, RA = up to 50 points; activities in other areas, RA = 0 points.
12. The selection process includes a professional interview, which exclusively intend for the clarification of aspects relates to the results of their research, for the candidates with an Evaluation of the Scientific and curriculum Vitae (ESCC) exceeding 75 points. The (PI) will be classified on a scale of 0 to 100 points.
13. The final grade is the sum of the classifications obtained in the Evaluation of the Scientific and Curriculum Vitae (ESCC) and professional interview (PI) (0.9 ESCC + 0.1 PI). The position can only be filled by candidates whose final classification is equal or greater than 80 points.
14. The results of the evaluation will be released to the candidates by email to the email address indicated in the application process.
15. The jury shall deliberate by means of a nominal vote based on the selection criteria adopted and published, and abstentions are not allowed.
16. Minutes of the meetings of the jury are drawn up, containing a summary of what has taken place in the meetings, as well as the votes cast by each of the members and their reasons; these minutes should be available to candidates whenever requested.
17. The call is open from 08-06-2021 to 22-06-2021 (until 23h59m, local time). Applications must be formalized by email to recursoshumanos@fe.up.pt and to sas.systec@fe.up.pt and should clearly state the reference **FEUP-AI- SMARTCUT**. The application must include: complete name, number and date of the identity card, tax identification number, date and location birth, residence and contact address, including e-mail and telephone contact.
18. The application shall be accompanied by the following documents:
- a) Copy of the certificate or diploma;

- b) Detailed Curriculum Vitae;
- c) Copy of the 5 most relevant publications;
- d) Motivation Letter, written in English
- e) Documents proving professional experience;

Failure to submit the requested documents implies exclusion from the selection process.

19. Candidates who formalize their application incorrectly or do not prove the general requirements specified in this notice are excluded from admission to the competition. The jury has the power to require any candidate, in case of doubt, to present documents proving their statements.

20. False statements by candidates shall be punished in accordance with the law.

21. Preliminary Hearing and deadline for the Final Decision: in accordance with article 121 of the Code of Administrative Procedure, after being notified, the candidates have 10 working days to pronounce. Within a maximum period of 90 days from the deadline for submitting applications, the final decisions of the jury are given.

22. Non-discrimination and equal access policy: FEUP actively promotes a policy of non-discrimination and equal access, so that no candidate can be privileged, beneficiary, disadvantaged or private of any right or exemption from any duty owing, in particular, to ancestry, age, sex, sexual orientation, marital status, family status, economic situation, education, social origin or condition, genetic heritage, reduced working capacity, disability, chronic illness, nationality, ethnic origin or race, territory of origin, language, religion, political or ideological beliefs and trade union membership.

23. The selection boards approved this notice at the meeting held on 17-05-2021

24. Under the terms of D.L. No. 29/2001, of February 3rd, the disabled candidate has preference in equal classification, which prevails over any other legal preference. Candidates must declare their respective degree of incapacity, the type of disability and the means of communication / expression to be used in the selection process, under the terms of the aforementioned diploma.