

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

1. By order of 19-05-2022, 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 the BugWright2 project - Autonomous Robotic Inspection and Maintenance on Ship Hulls and Storage Tanks, funded by the European Union's Horizon 2020 research and innovation program under Grant agreement No 871260, in the form of an Uncertain Term Employment Contract never exceeding the maximum limit of four 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. João Tasso Figueiredo Borges de Sousa

Member: Prof. Maria do Rosário Marques Fernandes Teixeira de Pinho

Member: Prof. António Pedro Rodrigues Aguiar

Substitute Member: Prof. Maria Margarida de Amorim Ferreira

Substitute Member: Prof. Fernando Manuel Ferreira Lobo Pereira

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 Department of Electrical and Computer Engineering of the Faculty of Engineering of the University of Porto (FEUP).

5. The monthly remuneration to be attributed corresponds to the 2<sup>nd</sup> remuneratory 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 € 1.997,60 Euros, on full time.

6. General admission requirements: The applicants must be national, foreign and stateless candidates holding a Master degree in Mechanical 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.

7. Functions to perform: the Assistant Researcher executes, develops, and participates in research and development projects, under the guidance of a researcher or professor of the higher education. The Assistant Researcher will be part of the Underwater Systems and Technology Laboratory team, executing and developing the activities of the BugWright2 project - Autonomous Robotic Inspection and Maintenance on Ship Hulls and Storage Tanks, according to the expected and approved work plan. The Assistant Researcher will collaborate in the development and demonstration of an adaptable autonomous robotic solution for servicing ship outer hulls, while also contributing to the project management and dissemination and conducting operations at sea. Namely, it will specifically contribute the following activities:

- WP1 Specification, Use-Cases and Legal Framework
- WP2 Mechatronics and Robot Adaptations
- WP4 Robot Localization and 3D Structure Mapping
- WP5 Autonomous Navigation
- WP6 Autonomous Multi-Robot Inspection
- WP7 User-Interfaces and Data Visualization
- WP9 Large-Scale Pilot WP
- WP10 Dissemination and Exploitation Activities
- WP11 Management

8. 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.

9. 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 and technological production of the last five years considered to be more relevant by the applicant to the recruitment area and the applied research activities, or based on practice considered to be more relevant by the applicant to the recruitment area;
- 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.

## **10. Evaluation of the Scientific Career and Curriculum Vitae(SCC)**

Evaluation of the relevance, quality and recency of the scientific career and curriculum vitae, focusing on the aspects described below. The rating is displayed on a scale of 0 to 100 points, given by the following formula:  $SCC = 0,3 SP + 0,6 TP + 0,1 RA$ .

### **10.1 Scientific Production (SP)**

Assessment of the scientific production (SP), over the last five years. The rating is obtained as follows:  $SP = 0,4 SPV + 0,6 SPQ$ .

**10.1.1. Quantitative Evaluation (SPV):** Publications in the area of Command and control, Automation, Vehicle systems network and Systems architecture ,  $SPV =$  up to 100 points; publications in related areas,  $SPV =$  up to 50 points; publications in other areas,  $SPV = 0$  points.

**10.1.2. Qualitative evaluation (SPQ):** the candidate must provide copies or a link to the public repository of up to 5 articles that considered most relevant,  $SPQ =$  up to 100 points.

### **10.2. Technological Production (TP)**

The technological production (TP) of the applied or practice based research activities, which are considered to have the greatest impact by the candidate, is evaluated in the areas of recruitment detailed below. The rating of scientific productivity is obtained as follows:  $TP = 0.2 TPProj + 0.2 TPCamp + 0.2 TPHd + 0.2 TPMop + 0.2 TPMan$ .

**10.2.1. Participation in national and international projects (TPProj)** in the area of Robotic Underwater Systems,  $TPProj =$  up to 100 points; in related areas,  $PTProj =$  up to 50 points; in other areas,  $PTProj = 0$  points.

**10.2.2. Participation in multidisciplinary scientific campaigns (TPCamp)**, in coastal and high seas areas, operating and coordinating multi-vehicle systems,  $PTCamp =$  up to 100 points.

**10.2.3 Experience in developing tools, technology and hardware (TPHd)** for autonomous underwater systems,  $TPHd =$  up to 100 points.

**10.2.4. Team management in an operational environment (TPMop)**, ideally in the high seas, for data collection using autonomous systems,  $TPMop =$  up to 100 points.

**10.2.5. Management of equipment and maintenance of underwater vehicles (PTMan),** namely predictive and preventive maintenance of autonomous underwater vehicles (assembling and recovery), TPMAn = up to 100 points.

**10.3. 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 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 Command and Control, Automation, Coordination and Network of vehicle systems, RA = up to 100 points; activities in related areas, RA = up to 50 points; activities in other areas, RA = 0 points.

**11.** The selection process includes a professional interview (PI), 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 80 points. The (PI) will be classified on a scale of 0 to 100 points.

**12.** The final grade is the sum of the ratings obtained in the Evaluation of the Scientific Career and Curriculum Vitae (SCC) and professional interview (PI) ( $0.9 \text{ SCC} + 0.1 \text{ PI}$ ). The position can only be filled by candidates whose final classification is equal or greater than 80 points.

**13.** The results The results of the evaluation will be released to the candidates by email to the email address indicated in the application process.

**14.** The jury shall deliberate by means of a nominal vote based on the selection criteria adopted and published, and abstentions are not allowed.

**15.** 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.

**16.** The call is open from 13-06-2022 a 28-06-2022 (until 23h59m, local time).

Applications must be formalized at <http://www.fe.up.pt/concursos>, reference on-line nº 816.

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.

**17.** 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 or link to public repository;
- d) Documents proving professional experience;

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

**18.** 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.

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

**20.** 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.

**21.** 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.

**22.** The selection boards approved this notice at the meeting held on 20-05-2022

**23.** 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.