

NOTICE OF OPENING OF AN INTERNATIONAL SELECTION PROCEDURE FOR THE RECRUITMENT OF A DOCTORATE INITIAL LEVEL RESEARCHER POSITION

By order of 21-02-2024, the Dean of FEUP, Professor Rui Artur Bártolo Calçada, deliberated to open an international selection procedure for the recruitment of 1 Doctorate Initial level within the scope of Agenda “PRODUCING RAILWAY ROLLING STOCK IN PORTUGAL”, nr. C645644454-00000065, investment project nr. 55, of the Incentive System “Agendas for Business Innovation”, financed by the Recovery and Resilience Plan (PRR) and by European Funds NextGeneration EU, in the form of a Uncertain Term Employment Contract, by legal imperative, under the terms of paragraph b) of no. 1 of article 6 of RJEC, *ex vi* of no. 2 of article 18 of RJEC, and will be maintained only for the period necessary to execute the tasks defined in the project and identified below, whose expected duration is 22 months, never exceeding the maximum limit of six years.

This recruitment aims the performance of activities corresponding to the category of Doctorate Initial level, as stated in article 8 of Regulation No. 487/2020, of May 22.

The Doctorate Initial level, in abstract, is responsible for carrying out the activities foreseen in no. 2 of art. 7 of Regulation no. 487/2020, of May 22nd. Specifically, the Doctorate Initial level will develop R&D activities in the scope of Project “*PRODUCING RAILWAY ROLLINGSTOCK IN PORTUGAL*” which inserts in the area of Mechanical Engineering. Specifically, the Doctorate Initial level will contribute to the following Project work, predicted in the application:

- i) Work Package 2 – Eco-sustainable Structural concept development and manufacturing:
 - Task 4 – Production specifications.
 - Task 6 – Main structure manufacturing.
 - Task 8 – Secondary assembly and testing.
- ii) Work Package 7 – Modular Integration of Solutions and Homologation:
 - Task 8 – Creation of a maintenance plan
 - Task 10 – Final tests for vehicle homologation
- iii) Work Package 8 – Dissemination & Marketing:
 - Task 3 – Creation of marketing and dissemination content
 - Task 4 – Dissemination through publications and congresses
 - Task 5 – Participation in trade fairs and workshops

The selected researcher may also provide possible collaboration in teaching and training activities in the area of research.

1. The scientific area of this selection procedure is Mechanical Engineering.
2. Applicable Legislation: Regulation nº 487/2020, of 22 May - Regulation of Research, Science and Technology Staff of the University of Porto and other applicable legislation namely the Labor Code, Law on 7/2009, of 12 February, in its current version, Decree-Law no. 57/2016, of 29 August, approving a regime for contracting doctorates to stimulate scientific and technological employment in all areas of knowledge (RJEC), in the wording introduced by the first amendment provided Law no. 57/2017, of July 19, Regulatory Decree no. 11-A/2017, of December 29 and applicable regulatory standards.
3. In the wording of article 16 of Decree-Law no. 57/2016 of 29 August, this procedure is exempted from the authorization of the members of the Government responsible for the areas of Finance and Public Administration, namely in paragraph no.3 of article 7 of the LTFP; from the prior favorable opinion of the members of the Government responsible for the areas of Finance and Public Administration as mentioned in no. 5 of article 30 of the LTFP and from the procedure for the recruitment of workers in the requalification situation referred to in Article 265 of the LTFP.
4. In accordance with articles 22.º, n.º 3 and 4 of the Regulation and 13.º of the RJEC, the Recruitment board is composed as follows:
President: Professor Abílio Manuel Pinho de Jesus, FEUP
Member: Doctor Pedro Aires Moreira Montenegro Marques e Almeida, FEUP
Member: Professor Abel Ilah Rouboa, FEUP
Substitute Member: Doctor Cláudio Carlos da Silva Horas, FEUP
Substitute Member: Professor José António Fonseca de Oliveira Correia, FEUP
5. The work will be developed at the Mechanical Engineering Department of the Faculty of Engineering of the University of Porto (FEUP).
6. The monthly remuneration to be paid is €2.566,01, corresponding to level 38 of the Single Salary Table, approved by Order no. 1553-C/2008 of December 31 and level 6, position 2 from “Regulamento n.º 487/2020”.

7. Admission Requirements:

7.1 General Admission Requirements:

This competition is open to national candidates, foreigners and stateless persons holding a doctoral degree in Mechanical Engineering or related areas, and with a scientific and professional curriculum

that shows an appropriate profile for the activity to be developed.

Any doctorate awarded by a foreign higher education institution must be recognized by a Portuguese higher education institution in accordance with article 25 of the Decree-Law no. 66/2018, of August 16, which approves the legal regime for the recognition of academic degrees and diplomas of Higher Education, awarded by foreign higher education institutions and paragraph e) of no. 2 of article 4 of Decree-Law no. 60/2018, of August 3, and any formalities established therein must be complied with by the date of the hiring act.

7.2 Specific Admission requirements:

The following specific criteria must be fulfilled to determine the appropriate profile for the activity to be developed:

- a) First author of 5 papers published in English in ISI indexed journals, in the field of CFD simulation.
- b) candidates must have skills and previous experience in the following areas: i) strong skills in numerical element with ANSYS and ii) strong experience in computational fluid dynamics (CFD).

8. Recruitment method:

In accordance with articles 26 of the Regulation and 5 of the RJEC, the selection methods are:

- a) Evaluation of the curricular path and scientific career of the applicants (APCC) (90%);
- b) Interview (ENT) - (10%).

9. Evaluation of the curricular path and scientific career (APCC) (90%)

9.1. Evaluation of the curricular path and scientific career, considering a profile that is suited to the requirements of the duties corresponding to the category covered by this competition and focusing on the relevance, quality, and currentness of the following aspects:

- a) Scientific performance in the areas and subareas for which the competition is open.
- b) Knowledge transfer.
- c) Science and technology management and communication.

9.2 In evaluating the aspects indicated in points a), b) and c) of the preceding paragraph, the activity developed in the last 5 (five) years must be considered.

9.3 The five-year period mentioned in 9.2 may be extended by the Board, at any applicant's request, when based on the suspension of scientific activity for socially protected reasons, namely for reasons of parental leave, prolonged serious illness, and other situations of unavailability for work that are legally protected.

9.4 In the evaluation of the dimensions of the aspects described in 9.1, the following parameters are considered, and the following weighting factors are attributed:

A1) Criteria for evaluating Scientific Performance (DC) (90%)

A1.1.) International publications as first author in high-ranked peer reviewed journals. The list of publications must be included in the curriculum with a clear indication of the statistical analyses used, along with the candidate's role in implementing them (60%).

A1.2.) Participation in national and/or international research projects in the area of the project and metalworking construction (30%).

A1.3.) Development of collaborations with international researchers (10%).

A2) Criteria for Knowledge Transfer and Science and Technology Management and Communication (10%):

A2.1.) Participation in national and international scientific meetings with peer review as well as by invitation (70%);

A2.2.) Reviewer of scientific articles (10%);

A2.3.) organization of scientific events (10%);

A2.4.) Supervising experience at different levels (internships, master dissertations, doctoral theses) (10%);

9.5 The final classification of the (APCC) is obtained by the following formula: $APCC = (0,90 \times A1) + (0,10 \times A2)$.

10. Evaluation of the Interview (ENT) (10%):

The interview is held with the applicants with score equal or higher than 70 points, of all members of the Jury, in the evaluation of their curricular path and scientific career will be admitted, and the board will evaluate aspects related to the research conducted by the applicants. The interview will be conducted in Portuguese or English Language.

11. Final classification:

The Final Classification (CF) of the Evaluation of the applicants' Curricular Path and Scientific Career (APCC) and interview (ENT), will be obtained by applying the following formula: $CF = (APCC \times 0.9) + (ENT \times 0.1)$.

12. Evaluation of the selection methods:

12.1. Each member of the Board evaluates the applicants' curricular path and scientific career on a scale from 0 to 100 points, with a weighting up to the hundredths, and the classification is obtained through the weighting defined in the criteria to be evaluated.

12.2. The interview evaluation is expressed on a scale of 0 to 100 points, with a weighting to the hundredths.

12.3. The position can only be filled by candidates whose final classification is equal or higher than 60 points, obtained through all members of the Jury.

13. Evaluation methodology:

13.1. After the admission of the applicants, and before starting the voting for their final ranking in the evaluation of their scientific and curricular background, each member of the Board presents a written document, to be attached to the meeting minutes, with the list of the applicants in descending order of merit, duly substantiated, considering the criteria and parameters of this competition notice.

13.2. The Board deliberates employing reasoned roll-call voting following the selection criteria adopted and disclosed. Abstentions are not allowed.

13.3. The seriation methodology is that which is indicated in article 29 of the Regulation.

13.4. If an absolute majority of votes is not reached after the voting explained in the previous number, or in case of a tie, the Chair's vote will be used for the final ranking.

13.5. Each member of the Board must respect, in the various voting rounds, the order he or she presented in the document referred to in paragraph 13.1.

13.6. The interview, has a maximum duration of one hour and is exclusively aimed at clarifying aspects related to the research carried out by the applicants.

13.7. The Board's discussions will be briefed in minutes taken during its meetings, containing a summary of what occurred, as well as the votes cast by each member and respective reasoning.

13.8. After concluding the application of the selection criteria, the jury proceeds to produce an ordered list of the approved applicants with the respective classification.

13.9. The Board's final decision is approved by the head of the institution responsible for opening the tender notice. The final decision on hiring is the responsibility of the top manager of the hiring entity.

14. Formalization of applications:

14.1. **Applications must be formalized at <http://www.fe.up.pt/concursos> , reference on-line nº 1128, until de 23h59m (local time) of 08-04-2024.**

The application must include: full name, number and date of identity card or citizen card, or civil identification number, tax identification number, date of birth, residence, and contact address, including e-mail and telephone contact.

14.2 The application must be accompanied by documentary evidence of the conditions described in point 7 of this notice, namely:

- a) Copy of doctorate certificate or diploma.
- b) Detailed curriculum vitae, containing all information relevant for the evaluation of the application, as well as for demonstrating compliance with the criteria set out in point 7 of this announcement, organized in accordance with the seriation criteria set out in no. 9.4.
- c) Letter of motivation.
- d) Copies of up to 5 publications considered most relevant by the candidate, associated with the position;
- e) Other supporting documents considered relevant to the eligibility of the application and documents that the applicant considers relevant to the assessment of his/her merit.

14.3. Failure to submit the documents mentioned in 14.2 will lead to the exclusion of the application. For purposes of hearing of the interested parties, the exclusion decision is notified to the applicants by e-mail.

14.4. The Board may, whenever it deems necessary, ask the applicants to provide complementary documents for the facts described in the submitted curriculum, setting a deadline for that purpose.

15. False statements made by applicants will be punished according to the law.

16. Notices of the results:

The minute(s) of the Board meeting(s) for evaluating the applications will be sent via e-mail with a delivery receipt.

17. Parties hearing and deadline for final decision:

In accordance with article 121 of the Administrative Procedure Code, after being notified, the applicants have 10 working days to comment. Within 90 days, counting from the deadline for submitting applications, the Board's final decisions are made.

18. The present competition is exclusively aimed at filling the indicated vacancy and may be terminated until the final ranking list of applicants is ratified, expiring with the respective occupation of the job position on offer. If none of the applicants has the appropriate profile for the performance of the

functions described above within this project's scope, the Board reserves the right not to award the position in the competition.

19. 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.