

**NOTICE OF OPENING OF AN INTERNATIONAL SELECTION PROCEDURE FOR THE
RECRUITMENT OF A RESEARCHER POSITION HOLDING A PHD DEGREE UNDER DECREE-LAW
No. 57/2016, OF AUGUST 29th, AMENDED BY LAW No 57/2017 OF JULY 19th.**

1. By order of 14-09-2018, the Dean of FEUP, Professor João Bernardo de Sena Esteves Falcão e Cunha, deliberated to open an international selection procedure for the recruitment of 1 Doctoral Researcher within the scope of Project *POWER2METHANE – Renewable Power Conversion into Methane with CO₂ Capture and Utilization* – ref. POCI-01-0145-FEDER-030277, , funded by FEDER funds through COMPETE2020 - Programa Operacional Competitividade e Internacionalização (POCI) and by national funds (PIDDAC) through FCT/MCTES, for research scientific activities in the area of Chemical Engineering – Separation and Reaction Processes, in the form of a Uncertain Term Employment Contract, under the Labor Code, never exceeding the maximum limit of six years. The recruitment of this research position aims at the development of R&D activities in the scope of the area of Chemical Engineering – Separation and Reaction Processes, aiming: (i) the assembly, testing and optimization of a cyclic CO₂ capture and conversion unit to produce methane, (ii) the synthesis, characterization and testing of CO₂ adsorbents and methanation catalysts, and (iii) the evaluation of the techno-economic feasibility of the cyclical unit considering different final applications, in accordance with the activities foreseen in the project application:

Activity 1: Management & Dissemination;

Activity 2: Prototype Assembling;

Activity 3: Synthesis and Characterization of Sorbents and Catalysts;

Activity 4: Prototype Testing & Optimization;

Activity 5: Techno-Economic Analysis.

2. Applicable Legislation: Decree-Law no. 57/2016, of August 29th, 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 by Law no. 57/2017, of July 19th, Regulatory Decree no. 11-A/2017, of December 29th, and Labor Code, approved by Law no. 7/2009, of February 12th, in its current version .

3. In the wording of article 16 of Decree-Law no. 57/2016, of August 29th, this procedure is exempted from the authorization of the Government members responsible for the areas of



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Finance and Public Administration, namely the one mentioned in no.3 of article 7 of the LTFP; from the prior favorable opinion of the Government members 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 article 13 of the RJEC and according to the appointment, the jury is composed as follows:

President: Luís Miguel Palma Madeira, Associate Professor at FEUP;

Member: Alírio Egídio Rodrigues, Emeritus Professor at FEUP;

Member: Maria Arminda Costa Alves, Full Professor at FEUP;

Substitute Member: Fernando Alberto Nogueira da Rocha, Assistant Professor at FEUP;

Substitute Member: Fernando Gomes Martins, Associate Professor at FEUP.

5. The work will be developed in the Chemical Engineering Department of the Faculty of Engineering of the University of Porto (FEUP).

6. The monthly remuneration to be attributed is the one provided in no. 1 of article 2 of the Regulatory Decree no. 11-A/2017, December 29th, corresponding to the level 33 of the single remuneration table, approved by the Administrative Rule no. 1553-C/2008, December 31, in the amount of € 2128,34 Euros, on exclusive dedication.

7. The applicants may be national, foreign and stateless candidates holding a doctor degree in Chemical Engineering, or other related area, and holding a scientific and professional curriculum revealing a profile suitable for the activity to develop. If the doctorate degree has been awarded by a foreign higher education institution, it must comply with the provisions of Decree-Law no. 341/2007, of October 12th, and any formalities established therein must be fulfilled until the expiration date for the application.

8. General requirements for admission to competition are those defined in the previous paragraph. In order to determine the appropriate profile for the activity to be developed, the following criteria are defined: candidates must have competences and previous experience in participating in research projects, in assembling lab-scale units for reaction/adsorption studies, in the study of adsorptive reactors for the capture and conversion of CO₂, in processes of CO₂ capture by adsorption at high temperature, in the study of catalysts for the methanation reaction, in the modeling and simulation of chemical reactors.

9. In terms of the article 5 of the RJEC, the selection is made through the evaluation of the scientific and curricular careers of the candidates.

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

- a) the scientific, technological, cultural or artistic production of the last five years considered to be more relevant by the applicant;
- b) the applied or practice-based research activities developed over the last five years and considered as having the greatest impact by the candidate;
- c) the activities of extension and dissemination of knowledge developed during the last five years, in particular in the context of culture and scientific practices promotion that are considered by the candidate to be of greater relevance;
- d) the activities of management of science, technology and innovation programs, or the experience in observing and monitoring the scientific and technological system or higher education, in Portugal or abroad.

11. The period of five years referred to in the preceding number may be increased by the jury, at the request of the candidate, when justified on grounds of scientific activity suspension for socially protected reasons, namely on grounds of parental leave, prolonged serious illness, and other situations of unavailability for work legally protected.

12. This position is open for carrying out activities in the area of of Chemical Engineering – Separation and Reaction Processes, in particular of CO₂ Capture and Conversion, below designated as area of preference.

The evaluation criteria are the following:

The Evaluation of the Scientific Career and Curriculum Vitae (ESCC) focuses on three parts described below and the final classification is obtained by: $ESCC = 0.2 AQ + 0.4 SCC + 0.4 MCI$.

1. Academic Qualifications (AQ)

Assessment of the area of study of the candidate: PhD in Chemical Engineering, AQ = 5 points;
PhD in Related Areas, AQ = up to 3 points.

2. Scientific Career and Curriculum (SCC)

Assessment of the relevance, quality and current impact of the scientific career and curriculum. This evaluation focuses on the parameters described below and the classification is obtained by: $SCC = 0.8 SC + 0.2 RA$.

2.1 Scientific Production (SC)

Assessment of the scientific production (SC), over the last five years. The classification is obtained by: $SC = 0.6 SCV + 0.4 SCQ$.

Quantitative Evaluation (SCV): publications in ISI journals in the area of preference, SCV = up to 5 points; publications in related areas, SCV = up to 3 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 5 points.

2.2 Research, Extension, and Management Activities (RA)

Evaluation of applied, or based on practice, research activities, as well as activities of extension and management developed in the last five years. This parameter includes (i) supervision/co-supervision of Master Students, PhD students and Post-Doctoral researchers, (ii) participation in R&D projects, services, and technology transfer and (iii) 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 5 points; activities in related areas, RA = up to 3 points; activities in other areas, RA = 0 points.

3. Motivation and Capacity for Innovation (MCI)

Evaluation of the candidate's motivation and capacity for innovation. For this evaluation, the applicant must submit the document described below and the classification is obtained by the following formula: $MCI = LM$.

3.1 Letter of Motivation (LM)

Letter of motivation describing the relevance of the candidate's scientific career for this position: LM = up to 5 points.

13. The evaluation process includes a professional interview (PI) to the candidates, which exclusively intends 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 4 points. The (PI) will be classified on a scale of 0 to 5 values.

14. The final grade is the weighted 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 4 points.

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 the candidates whenever requested.

17. After completing the application of the selection criteria, the jury will draw up an ordered list of successful candidates with their classification.

18. The final decision of the jury is approved by the maximum leader of the institution that also has to decide on the hiring.

19. Formalization of applications:

19.1. Applications must be formalized via email to recursoshumanos@fe.up.pt and to mmadeira@fe.up.pt and should clearly state the reference **FEUP-LEPABE-POWER2METHANE**.

The application must include: complete name, number and date of the identity card, tax identification number, date and location of birth, residence and contact address, including e-mail and telephone contact.

19.2 The application shall be accompanied by documents proving the conditions laid down in paragraphs 7 and 8 for admission to this call, namely:

- a) Copy of a doctoral certificate or diploma;
- b) PhD Thesis;
- c) Detailed Curriculum Vitae;
- d) Other documents relevant to the evaluation of the qualification in related scientific area;
- e) Copy of the 5 most relevant publications;
- f) Letter of Motivation;
- g) Letters of Recommendation (optional);
- h) Documents proving professional experience;

i) Information regarding scientific and technological production, applied research activities, activities of extension and dissemination of knowledge and activities of management of science, technology and innovation programs.

19.3. The application period starts on the day following the publication of this notice and takes place for a period of 10 (ten) working days.

20. 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.

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

22. The list of admitted and excluded candidates and the final classification list are published on the FEUP website at https://sigarra.up.pt/feup/en/noticias_geral.lista_noticias#gruponot12, and the candidates will be notified through registered letter and by email with receipt of delivery of the notification. These lists are also posted on FEUP's premises, located at Rua Roberto Frias, s/n, 4200-465 Porto.

23. 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.

24. The present competition is exclusively intended to fill the vacancy indicated, and may be terminated until the final list of candidates is approved and will expire with the respective occupation of the job on offer.

25. 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.

26. The jury approved this notice at the meeting held on 20-09-2018.

27. 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.