

## ANNOUNCEMENT FOR A SENIOR RESEARCHER POSTION AT FEUP

1. By the decision of the Director of FEUP, Professor João Bernardo de Sena Esteves Falcão e Cunha, of February 2, 2017, it was decided to open a call for Senior Research Position with a PhD degree to carry out scientific research activities in the areas of Analysis, Control and Optimization of Distributed Dynamic Systems. The activities are to be carried out in the SYSTEC FCT R&D Unit - Research Center for Systems and Technologies - POCI-01-0145-FEDER-006933 - funded by the European Regional Development Fund (ERDF) through COMPETE2020 - Operational Program for Competitiveness and Internationalization (POCI) and by national funds through the Foundation for Science and Technology IP, under an Uncertain Contract Term Contract, never exceeding the duration of the project.

Under the terms of the contract, the candidate should:

- Plan and carry out high standard and independent research in the context of SYSTEC R&D projects and also in novel projects of his/her own initiative.
  - Take ownership and long-term leadership of research projects within the SYSTEC strategy, by working closely with other senior researchers and other colleagues to advance the state of the art in relevant areas.
  - Establish close liaison with project partners and senior researchers.
  - Generate and display R&D results that contribute to the worldwide excellence and keep accurate and complete records of all findings.
  - Contribute to the internationalization of the research team.
  - Promote the impact of R&D results on societal challenges (including business leadership), particularly those relevant to the transfer of R&D with an emphasis on the strategic partnerships of SYSTEC.
  - Publish and be visible in major international fora, with emphasis on selected top journals, conferences and workshops.
  - Write progress reports and prepare results for publishing and dissemination through presentations and the Internet.
  - Collaborate with everyone working on the projects, attend relevant group and project meetings, workshops and conferences as needed.
  - Co-supervise graduate and undergraduate students involved in projects or related activities. Provide assistance and guidance by directing small research teams of students.
  - Keep abreast of cutting-edge developments in the relevant fields and not only build them where appropriate, but also develop relevant contacts.
  - Conduct occasional demonstrations of lab work to potential students and/or industrial and/or academic collaborators.
  - Comply with all policies and regulations, including key policies and procedures on Confidentiality, Conflict of Interest, Data Protection and other Regulations.
  - Any other duties commensurate with the degree of the position, as directed by the senior investigator.
2. Applicable Legislation: Decree-Law no. 57/2016, of 29 August, approving a regime of contracting doctorates to stimulate scientific and technological employment in all areas of knowledge (RJEC) and legal provisions of the Labor Code Approved by Law no. 7/2009, of February 12, with the changes introduced by Laws no. 105/2009 of September 14, 53/2011

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of October 14, 23/2012 of June 24, 69/2013 of August 30, 27/2014 of May 8, 55/2014 of August 25, 28/2015 of April 14 and 8/2016 of April 1.

3. According to art. Article 16 of Decree-Law no. 57/2016, of August 29, the current procedure exempted from the authorization of the members of the Government responsible for the areas of finance and Public Administration, namely the one referred to in article 7, paragraph 3 Of the LTFP; Obtaining the prior favorable opinion of the members of the Government responsible for the areas of Finance and Public Administration referred to in Article 30 (5) of the LTFP and 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 with the appointment the jury is composed as follows:

President: Professor Fernando Manuel Ferreira Lobo Pereira, Professor at FEUP,  
Member: Professor António Pedro Rodrigues Aguiar, Associate Professor at FEUP  
Member: Professor João Tasso Figueiredo Borges de Sousa, Assistant Professor of FEUP  
Substitute Member: Professor Jorge Leite Martins de Carvalho, Full Professor at FEUP

5. The work will be developed in the FCT R&D Unit SYSTEC – Research Center of Systems and Technologies, in the Department of Electrical and Computer Engineering of the Faculty of Engineering of the University of Porto (FEUP).

6. The monthly remuneration associated with this position is the one specified for Level 1, item a) of paragraph 1 of article 15 of Decree No. 57/2016 of August 29, corresponding to level 28, being € 1.870,88, of the Single Remuneration Table, approved by Administrative Rule no. 1553-C / 2008, of December 31.

7. Applicants may be national, foreign and stateless candidates who hold a doctorate degree in Applied Mathematics, with solid knowledge in areas of Systems, Control, Optimization and theoretical areas of Engineering, or possibly also numerical aspects needed to investigate the control of dynamic systems evolving vector fields. If the doctor degree has been awarded by a foreign higher education institution, it must comply with the provisions of Decree-Law no. 341/2007, of October 12, and any formalities established there must be fulfilled until the expiration date for the application.

8. The general requirements for admission are those defined in the preceding paragraph. The specific requirements for admission are as follows. The applicant should be able to conduct independent scientific research throughout one or more of the following directions:

- Analysis of challenges and formulation of problems in the context of Large Scale or Distributed Systems in such a way that they are addressable by extensions of current results bodies in Control and Optimization.
- Extension of current results in Control and Optimization for Large Scale and Distributed Systems.
- Combination of Control and Optimization results with Numerical Approaches, with emphasis on those suited to Distributed Systems.

9. In accordance with article 5 of the RJEC, the selection will be based on the evaluation of the scientific and curricular path of the candidates.

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10. The evaluation of the scientific and curricular elements is focused on relevance, quality and timeliness:
- Of the scientific, technological, cultural or artistic production of the last five years considered more relevant by the candidate;
  - Applied or practice-based research activities developed over the last five years and considered as having the greatest impact on the candidate;
  - The activities of extension and dissemination of knowledge developed over the last five years, particularly in the context of promoting the culture and scientific practices considered by the candidate to be of greater relevance;
  - The activities of management of science, technology and innovation programs, or of 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 paragraph may be increased by the evaluation committee, at the request of the candidate, when justified on grounds of suspension of scientific activity for socially protected reasons, namely on grounds of parental leave, prolonged serious illness, and other situations of unavailability for work legally protected.
12. This call is open for activities in the area of Applied Mathematics, below designated by Area of Preference. The evaluation criteria are:

The evaluation of the candidate results from two components: Scientific and Curricular Course Evaluation and Professional Selection Interview.

#### 12.1 Assessment of the Scientific and Curricular

The evaluation of the scientific and curricular elements (APCE) focuses on the three components described below and the final classification is obtained by the following formula:

$$APCE = 40\% HA + 30\% PCC + 30\% MCI$$

##### 1. Academic Qualifications (AQ)

Evaluation of the candidate's training area.

PhD in Mathematics: AQ = 3 to 5 values

PhD in related areas: AQ = up to 3 values

PhD in other areas: AQ = 0 values

##### 2. Evaluation of the Scientific and Curricular path (SCP)

Evaluation of the relevance, quality and timeliness of the scientific and curricular path. This evaluation is based on the parameters described below and their classification is obtained by the following formula:

$$SCC = 40\% SP + 30\% AI + 15\% AE + 15\% AG$$

##### 2.1 Scientific Production (SP)

The scientific production (SP) of the last five years is evaluated.

Publications in the area of preference: SP = 3 to 5 values

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Publications in related areas: SP = up to 3 values

Publications in other areas: SP = 0 values

A qualitative evaluation of the scientific production (PCQ) is made, and the candidate must provide copies of up to 5 articles that are considered more relevant.

PCQ = up to 5 values

The classification of scientific production is obtained by:  $PC = 50\% PCV + 50\% PCQ$

## 2.2 Research Activities (AI)

The activities of applied or practice-based research developed over the last five years are evaluated. This parameter includes:

Activities in the area of preference: AI = 3 to 5 values

Activities in related areas: AI = up to 3 values

Activities in other areas: AI = 0 values

## 2.3 Extension Activities (AE)

The activities of extension and dissemination of knowledge developed during the last five years are evaluated. This parameter includes:

Activities in the area of preference: AE = 3 to 5 values

Activities in related areas: AE = up to 3 values

Activities in other areas: AE = 0 values

## 2.4 Management Activities (AG)

The activities of management of science, technology and innovation programs developed during the last five years are evaluated. This parameter includes:

Activities in the area of preference: AG = 3 to 5 values

Activities in related areas: AG = up to 3 values

Activities in other areas: AG = 0 values

## 3. Motivation and Capacity for Innovation (MCI)

Evaluation of the candidate's motivation and ability to innovate. For this evaluation the candidate must present the documents described below and their classification is obtained by the following formula:

$MCI = 50\% CM + 50\% PI$

### 3.1 Motivation Letter (CM)

Letter of motivation describing the relevance of the scientific path to the position and personal career goals.

CM = up to 5 values

### 3.2 Innovation (PI)

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Profile of the candidate and what could contribute in terms of innovation.

PI = up to 5 values

13. Professional Selection Interview

Candidates with a 4-point Scientific and Curricular Path Evaluation may be asked to do a professional interview that will be graded on a scale of 0 to 4 values.

The classification of the professional selection interview will be obtained by the following formula:

$$\text{EPS} = 50\% * \text{C1} + 30\% * \text{C2} + 20\% * \text{C3}$$

Criterion 1 (C1)

Evaluation of the knowledge and motivation for the exercise of the function.

C1 = up to 4 values

Criterion 2 (C2)

Assessment of the candidate's attitude and behavior in terms of teamwork capacity, conflict management capacity, persuasiveness, presentation and trust.

C2 = up to 4 values

Criterion 3 (C3)

Evaluation of verbal fluency and expression (coherence and discursive clarity, vocabulary richness, ability to understand and interpret the questions): in Portuguese and English, for national candidates; In English for foreign applicants.

C3 = up to 4 values

14. Final Classification

The final grade (CF) will be the sum of the scores obtained in the Scientific and Curricular Course Evaluation (APCC) and Professional Selection Interview (EPS).

$$\text{CF} = \text{APCC} + \text{EPS}$$

The position can only be awarded to candidates whose final grade is higher than 6 points.

15. The committee shall deliberate by means of a roll-call vote based on the selection criteria adopted and made public, 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 them, as well as the votes cast by each of the members and their reasons, being offered to the candidates whenever requested.
17. After completion of the application of the selection criteria and the interviews, the committee prepares the ordered list of successful candidates with their classification.
18. The final decision of the jury will be approved by the maximum leader of the institution, which also decides on the hiring.

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## 19. Formalization of applications

19.1. Applications must be formalized via email to [recursoshumanos@fe.up.pt](mailto:recursoshumanos@fe.up.pt), [flp@fe.up.pt](mailto:flp@fe.up.pt) and [sas.isr@fe.up.pt](mailto:sas.isr@fe.up.pt) and should mention the reference **FEUP-Researcher-SYTEC**.

19.2 The application shall be accompanied by documents proving the conditions laid down in points 7 and 8 for admission to this competition, namely:  
Applicants must submit the following documents:

- A) Detailed Curriculum Vitae;
- B) Copy of the 5 most relevant publications;
- C) Certificate evidencing the Doctorate;
- D) Letters of recommendation;
- E) Documents proving professional experience;
- F) Information related to 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 begins on the day following the publication of this notice and takes place for a period of 10 (ten) business days.

- 20. Candidates who formalize their application incorrectly or who do not prove the requirements of this call for proposals 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 as well as the final classification list will be sent to the applicants by registered letter. In addition, applicants will be notified by e-mail with receipt of delivery of the notification.
- 23. Prior hearing and deadline for the Final Decision: Pursuant to article 121 of the Code of Administrative Procedure, after being notified, the candidates have 10 working days to comment. Within a maximum period of 90 days from the deadline for the submission of applications, the final decisions of the jury are given.
- 24. The present competition is exclusively destined to fill the vacancy indicated and may be terminated until the homologation of the final ranking list of the candidates and expiring with the respective occupation of the job on offer.
- 25. Non-discrimination and equal access policy: The Faculty of Engineering of the University of Porto actively promotes a policy of non-discrimination and equal access, so that no candidate can be privileged, benefited, harmed Or to be deprived of any right or exemption from any duty due to, inter alia, ancestry, age, sex, sexual orientation, marital status, family situation, economic situation, education, social origin or condition, genetic heritage, Disability, chronic illness, nationality, ethnic origin or race, territory of origin, language, religion, political or ideological beliefs, and trade union membership.

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26. The jury approved this notice at the meeting held on April 13, 2017.
27. Under the terms of D.L. No. 29/2001, of February 3, the disabled candidate has a preference in equal classification, which prevails over any other legal preference. Candidates must declare their respective degree of disability, the type of disability and the means of communication / expression to be used in the selection process, under the terms of the aforementioned diploma, on the application form.

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