

#4160

Public Notice - International Selection Procedure

PhD Scientific Researcher Recruitment (Initial Stage Researcher)

FCiências.ID/2022/LASIGE_IDL/1

FCiências.ID - Associação para a Investigação e Desenvolvimento de Ciências, through its Chairman of the Board of Directors, hereby announces the opening of an international call for the recruitment of a Scientific Researcher with a PhD degree, in the category of Initial Stage Researcher, of the FCIências.ID Scientific Research Career, within the scope of the projects SATO: Self-Assessment Towards Optimization of Building Energy (Ref. H2020-LC-SC3-957128) and SMART2B: Smartness to existing Buildings (Ref. H2020-LC-SC3-2020-101023666), funded by European Union's H2020 research and innovation programme, under Grant Agreements nº 957128 and 101023666, respectively, in the form of an indefinite duration fixed-term employment contract, according to the Portuguese Labour Code and complementary legislation.

I. Admission Requirements

Portuguese nationals, foreign and stateless persons may submit applications to this selection procedure, provided they hold a doctoral degree¹ in Energy and Environmental Engineering, Sustainable Energy Systems, Physics Engineering, Mechanical Engineering or Civil Engineering or similar areas, and fully comply with the following requirements:

- a) The PhD degree must have been obtained at least 3 years ago;
- b) Proven experience in building thermal and air flow computational simulation, demonstrated by the quality and number of scientific papers published - Information provided in the CV and/or Motivation Letter;
- c) Demonstrated scientific experience on the impact of fine particulate pollution within the built environment, demonstrated by the quality and number of scientific papers published - Information provided in the CV and/or Motivation Letter;
- d) Demonstrated scientific experience on R&D activities with EnergyPlus and Computational Fluid Dynamics software's and with data analysis tools (MATLAB or Python) - Information provided in the CV and/or Motivation Letter;
- e) *h*-index equal or higher than 6 (obtained by Scopus) - Information provided in the CV and/or Motivation Letter;
- f) Experience in participating in national and/or international scientific projects in the area of the call - Information provided in the CV and/or Motivation Letter.

¹ Please note that Degrees obtained in foreign countries need a Portuguese Recognition issued by a Portuguese high degree Institution, according to the [Decree-Law nr. 66/2018](#), of August 16th and the [Ministerial Order nr. 33/2019](#), of January 25th. The presentation of such Recognition is mandatory for contract signature. More information can be obtained in: <https://www.dges.gov.pt/en/pagina/degree-and-diploma-recognition>.

II. Preferential Requirements

- a) Proficiency in Portuguese and English (written and spoken) - Information provided in the CV and/or Motivation Letter.

III. Applicable Law

1. Portuguese Labour Code, as approved by Law No. 7/2009, of February 12th, in its current version (CT);
2. Administrative Procedure Code, as published in Decree-Law No. 4/2015, of January 7th, in its current version (CPA).

IV. Work plan

The work plan to be executed includes the following tasks:

- 1) Identify key parameters and system characteristics under real-life conditions, namely resource use, performance and fault detection of all building energy and energy consuming equipment (heat pumps, artificial lighting, and other electrical equipment); develop a library of methods for automatic parameter and system identification for both normal and specific operating conditions and specific system and appliance control strategies.
- 2) Develop an automated database of the predicted energy consumption of buildings and equipment; develop the capability to compare real-life energy consumption with measured project performance or average performance obtained from multiple actual measurement inputs into the database.
- 3) Identify patterns and create profiles of equipment energy use, including equipment-specific data, for smart or IoT-enabled equipment, or cluster data, according to the function of each equipment; obtain a concrete and evolving baseline to assess building energy performance.
- 4) Development of an energy and thermal efficiency management tool, with the ultimate goal of developing and improving the existing high TRL technology for energy efficient building load management, ensuring a thermally comfortable indoor environment for building occupants.
- 5) Development of Building-as-a-Battery flexibility, electric appliances and energy storage (TES) in order to achieve the development and establishment of a service that can achieve the desired system flexibility according to the economic incentives and knowledge from the developed self-assessments.
- 6) Develop an optimal aggregated control services tool, based on both total and partial building energy aggregated control.
- 7) Deploy the developed innovations, platforms, self-assessment frameworks, actor services and applications and user interfaces on dedicated servers.
- 8) Testing and demonstration in building pilots; preparation and deployment of all developed innovations; monitoring.

This work plan will be developed under WPs 3, 4 and 6 of the SATO project and WPs 3, 4 and 6 of the SMART2B project.

V. Composition of the Jury

The members of the jury are:

- President - Guilherme Carvalho Canhoto Carrilho da Graça;
- 1st Member of the jury - Marta João Nunes Oliveira Panão;
- 2nd Member of the jury - Killian Paulo Kiernan Lobato;
- 1st Alternate Member of the jury - João Manuel de Almeida Serra;
- 2nd Alternate Member of the jury - Miguel Centeno da Costa Ferreira Brito.

VI. Place of work

Work will be developed at the facilities of Research Center IDL – Institute Dom Luiz, in Campo Grande, Lisboa, Portugal.

VII. Contract Duration

The full-time indefinite duration fixed-term employment contract, is expected to start in January 2023, and will last until the Work Plan referred to in section IV is completed. It will have an expected duration until 30/09/2024, will not exceed the limits set in the RCD.

VIII. Monthly Allowance

The gross monthly salary corresponds to 2153,94 Euros, corresponding to level 33 of the Single Remuneratory Table, as approved by Government Order No. 1553-C/2008, of December 31st, updated by the decree-law nr. 10-B/2020, of March 20th, and by the decree-law nr. 109-A/2021, of December 7th, plus holiday and Christmas allowances, as well as food allowance in the amount and conditions set out for workers with a legal employment relationship under the Labour Code.

IX. Evaluation of applications

1. Failure to comply with the Admission Requirements implies the non-admission of candidates in absolute merit.
2. Based on the assessment of the candidates' scientific and curricular background in the last five years, each member of the jury presents a justified proposal for admission (final classification equal to or greater than 50%) or exclusion (final classification below 50%) for each candidate, according to the evaluation criteria referred to in paragraph 4.
3. The final classification of candidates is given on a scale of 0 to 100%.
4. Evaluation of the relative merit of candidates, will rely on the following criteria:
 - a) Scientific publications in the area - 50%;
 - b) Participation in scientific projects in the area of the call - 30%;
 - c) Assessment of the references given by the candidate - 20%;
 - d) Interview, if considered necessary by the jury - 10%.
5. The jury may decide to interview the 3 best ranked candidates [in criteria a) to c) of paragraph 4], for clarifications and improved explanations of curricular elements. If there is an interview, the sum of the classification obtained in the evaluation criteria a) to c) will correspond to 90% of the final classification and the interview will correspond to 10%.
6. The jury shall deliberate by means of a roll-call vote based on the evaluation criteria.
7. Minutes of the jury meetings are drawn up, summarizing all relevant elements considered by jury members, as well as their individual votes and justifications.
8. After completion of the evaluation process, the jury will draw up a ranking of successful candidates with their classifications.
9. Hiring will be decided by the Chairman of the Board of Directors of FCIências.ID, based on the final jury recommendation.
10. The evaluation results will be published on the website of the FCIências.ID ("Concursos" tab). The candidates will be individually notified of the evaluation results by e-mail sent to the address indicated in the "Personal Data" section of the submitted form.
11. With the notification referred to in paragraph 10, the hearing phase of interested parties referred to in Article 121 *et seq.* of the CPA will begin, and last for ten working days.
12. The possible pronouncement of the candidate in a prior hearing must be addressed to the President of the jury and submitted in writing to concursos@fciencias-id.pt. The President of the jury will convene a jury's meeting to produce the final decision, within thirty working days.
13. Within five working days of the final jury decision, the Chairman of the Board of Directors of FCIências.ID will approve it and the candidates will be notified.
14. The communication between FCIências.ID (concursos@fciencias-id.pt) and the candidates will be electronic and will comply with the following rules:
 - a) At the time of electronic submission of any document - namely in the case of paragraph no 12 - the candidates must generate proof of "sent message".

- b) FCIências.ID will send an email message acknowledging documents received to the email address used by the candidates, within two working days.
- c) In case of absence of a confirmation receipt by FCIências.ID – showing the possibility of technical problems that should neither be the responsibility of the candidate nor FCIências.ID - the candidates should contact FCIências.ID, with the proof referred to in point (a), to ensure delivery and proper receipt of the documents concerned.

X. Compliance with public policies

1. FCIências.ID actively promotes a policy of non-discrimination and equal access, so that no candidate can be privileged, benefited, disadvantaged or deprived of any right or exempt from any duty due to, inter alia, 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.
2. Under the terms of D.L. No. 29/2001, of February 3rd, a 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 above-mentioned diploma.

XI. Submission of Applications

1. The present call will be open from 21st December 2022 to 5th January 2023.
2. The application and all the required documents may be submitted in Portuguese or English.
3. Applications will be submitted online, through the electronic platform of FCIências.ID (<http://concursos.fcencias-id.pt>).
4. On the electronic platform, applicants will complete a mandatory section on Personal Data [name, address, date of birth, contact email, nationality and scientific identifiers] and upload files with the documents listed below:
 - i.* Detailed *Curriculum vitae* in PDF format - *mandatory*;
 - ii.* A motivation letter clearly demonstrating that the candidate has an adequate profile for the position and fully complies with the Admission Requirements - *mandatory*;
 - iii.* Up to five publications relevant for the objectives of the Work Plan - *mandatory*;
 - iv.* Digital copies of documents proving formal academic degrees (PhD) and/or other scientific and professional qualifications - original documents must be provided in case of actual recruitment - *mandatory*;
 - v.* Other documents that candidates consider relevant for the assessment of their scientific merit, or to declare the personal situation in the cases covered in section X-2 of this Notice - *optional*.
5. By decision of the Chairman of the Board of Directors of FCIências.ID, candidates who do not submit the documents identified in paragraph 4 will not be admitted to the call. In case of doubts, the Chairman may also invite candidates to substantiate specific data or statements with official supporting documents, before accepting the candidates' submission.

This Public Note was approved by the jury on 20th December 2022.