

CALL FOR AWARDING RESEARCH FELLOWSHIPS WITHIN PROJECT GRANTS AND R&D INSTITUTIONS

1 Research Fellowship in Special Regime (BI-RE) for PhD Student

1 Research Fellowship(s) (BI) is(are) open at the **FCiências.ID – Associação para a Investigação e Desenvolvimento de Ciências**, for the project/R&D institution Self Assessment Towards Optimization of Building Energy (SATO), , financed by European Union's H2020 research and innovation programme under Grant Agreement no. 871259, under the following conditions:

1. **Scientific Area:** Energy and Environmental Engineering, Engineering Physics, Mechanical Engineering or Civil Engineering or similar areas

2. **Requirements for admission:** Portuguese nationals, foreign and stateless persons may submit applications to this selection procedure, provided they hold a Master degree in Energy and Environmental Engineering, Engineering Physics, Mechanical Engineering or Civil Engineering or similar areas, and fully comply with the following requirements:

- a) The master degree must have been granted in the last 2 years.
- b) Demonstrated scientific and/or professional experience in the area of Computational Fluid Dynamics (CFD) and in thermal energy simulation (EnergyPlus).
- c) The candidate must also be enrolled in the 3rd cycle of higher education (PhD)

3. **Additional optional skills and qualifications:** The candidate must also have experience in using the following software: ANSYS Fluent, EnergyPlus, MATLAB, Sketchup and PHOENICS.

4. **Work plan:** The work plan includes three stages: set, check fitness and test robustness. These three and sequential parts go from the conceptualization to the implementation and pilots testing. The new performance indicators are, therefore, the final result to be used as a fundamental part of the building self-assessment.

1. The first part consists of exploring the state-of-art of indicators, methods, and baseline definitions in the EU documents and how they are implemented in different countries. This process will contribute to establish the EPBD indicators that are best appropriate to assess the building energy performance and smart readiness taken into account the platform potential. The work also includes a detailed presentation of the methods used in the calculations, describing the time-basis, functional unit, disaggregation, benchmarking, and end-uses; and the definition of the baseline criteria used to account for primary non-renewable energy savings, avoided emissions and cost savings and all other optimization processes to be implemented. This work is developed in parallel with the SATO platform conceptualization and implementation. 3D building representation using BIM supports the visualization of the indicators, methods, and baseline.

2. The second part focus on the building pilots and how the platform is implemented. This process aims at checking the indicators, methods, and baseline fitness to the climate (Mediterranean, Central and Northern Europe); building typologies (residential and service buildings); and countries context (definitions, building standards, etc.).

3. During the third part, the robustness of indicators, methods and baselines are tested by evaluating real time pilots' self-assessment. The goal here is to study how the indicators are (not) influenced by equipment operational faults, occupant's specific needs and extreme events.

The work plan is included in several tasks from WP1 to WP6 of the project SATO.



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5. **Legislation framework:** Research Fellowship Holder Statute, in accordance with Law 40/2004, of 18 August, in its current version and the FCT Regulation for Research Studentships and Fellowships, in its current version (Reg. 950/2019 published in DR on 16th December: <https://dre.pt/application/file/a/127230968>, or at the FCT website: <https://www.fct.pt/apoios/bolsas/regulamento.phtml>), and FCIências.ID Fellowship Regulation, as approved on 12th May 2020 (available at [Regulamento de Bolsas de Investigação Científica da FCIências.ID](#)).
6. **Place of work:** The work will be developed at the Instituto Dom Luiz (IDL), in Faculdade de Ciências da Universidade de Lisboa, Campo Grande, Lisbon, Portugal under the scientific supervision of Professor Guilherme Carvalho Canhoto Carrilho da Graça.
7. **Fellowship duration:** This position is initially opened for 6 months and will begin on abril de 2021. The fellowship contract may be potentially renewed for until the end of the project months, in accordance with the provisions of Regulation of Research Fellowships from the Foundation for Science and Technology, I.P.
8. **Monthly allowance:** The fellowship amounts to € 1.530, according to [table values](#) of the fellowships awarded directly by the FCT, IP. The fellowship holder will have a personal accident insurance and can ensure the right to social security through adherence to the voluntary social insurance scheme, if not covered by any other social protection scheme, pursuant to *Código dos Regimes Contributivos do Sistema Previdencial de Segurança Social*. The fellowship will be paid monthly by bank transfer.
9. **Evaluation and selection process:** Candidates will be assessed by the quality of their CV and possibly, a selection interview. If the selection interview is not carried out, the final evaluation will be obtained with a weighting of 100% in the curriculum evaluation. If the jury chooses to carry out the selection interview, it will be carried out to the 2 (two) candidates with the best classification in the curriculum evaluation. In the event that the selection interview is carried out, the final evaluation will be obtained taking into account the following considerations: 50% for the curriculum evaluation and 50% for the selection interview.
10. **Selection Committee:** Professor Guilherme Carvalho Canhoto Carrilho da Graça (President), Professor Marta João Nunes Oliveira Panão (1st Effective Member) and Professor Killian Paulo Kiernan Lobato (2nd Effective Member). Professor João Manuel de Almeida Serra (1st Alternate Member) and Professor Miguel Centeno da Costa Ferreira Brito (2nd Alternate Member) are alternate members.
11. **Publication/notification of results:** All the candidates will be notified by e-mail, sent by the call holder, with the selection meeting minutes enclosed.
12. **Deadlines:** This call for applications is open from 25 February 2021 to 05 March 2021 .
13. **Application:** Applications should be sent via e-mail to gcg@fc.ul.pt, by attaching the following documents:
 - a. Curriculum vitae;
 - b. Certificate of completion of previous degree;
 - c. Proof of registration in the study cycle that confers the requested degree in this call;
 - d. and other documents considered relevant.



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14. **Time limits for the appeal procedure:** In case of negative decision, the candidates have 10 business days, after the date of announcement of the results of the candidates evaluation, to pronounce their disagreement in accordance with the *Código do Procedimento Administrativo*. Appeals against the final decision may be submitted to the Administration Board of FCIências.ID (fciencias.id@fciencias-id.pt) within 15 business days after the notification date

Note 1: The documents that prove the entitlement of the academic qualifications and diplomas, or the proof of registration in the academic degree or diploma requested on the call, can be dismissed during the application period and replaced by a declaration on their honour from the applicant. Their delivery is mandatory during the fellowship contractualization.

NOTE 2: Please note that - higher education degrees and diplomas awarded by foreign higher education institutions need to be recognized by a Portuguese higher education institution, pursuant to the [Decree-Law nr. 66/2018](#) (August 16) and the [Ministerial Order nr. 33/2019](#) (January 25). The presentation of the recognition certificate is mandatory for contract signature. More information can be obtained at: <https://www.dges.gov.pt/en/pagina/degree-and-diploma-recognition>.

