

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

### 1(One) Research Fellowship under Special Regime (BI-RE) for Master Student

1 Research Fellowship(s) under Special Regime (BI-RE) is(are) open at the **FCiências.ID – Associação para a Investigação e Desenvolvimento de Ciências**, for the project/R&D institution Very Efficient Deep Learning in IoT (VEDLIoT), under Grant Agreement no.957197, financed by European Union's H2020 Research and Innovation Programme, under the following conditions:

1. **Scientific Area:** Computer Science and Engineering
2. **Requirements for admission:** Portuguese nationals, foreign and stateless persons may submit applications to this selection procedure, provided they have a bachelor degree in the scientific area mentioned in paragraph 1.
3. **Additional optional skills and qualifications:** Knowledge in the area of cyber-physical systems and safety/robustness
4. **Contracting requirements:** Presentation of the academic qualifications and/or diplomas. Enrollment in a Master Degree Programme.
5. **Work plan:** Currently, autonomous systems employ sophisticated machine learning techniques for perceiving the surrounding environment, for planning, for control, and to realise other functions. In this context, classification techniques play a fundamental role. Given that operational environments are changing over time and it is not possible to fully characterise them at design time, ensuring that these ML techniques are robust and can be safely used is very challenging. In this project we will consider an approach based on multi-level machine learning (ML-ML). This ML-ML strategy consists in a division of a problem into sub-problems. These sub-problems are solved separately, aiming at improving the classification performance when compared to a single and more complex classification problem. The proposed work will explore this research direction by: a) surveying existing work in the areas of ML robustness, explainable AI, and hierarchical ML; b) implementing the ML-ML strategy for a selected use case; c) evaluating the implemented strategy by comparing it with a monolithic classification strategy; d) writing a thesis.
6. **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 16<sup>th</sup> December: <https://dre.pt/application/file/a/127230968>, or at the FCT website: <https://www.fct.pt/apoios/bolsas/regulamento.phtml.pt>), and FCiências.ID Fellowship Regulation, as approved on 12<sup>th</sup> May 2020 (available at [Regulamento de Bolsas de Investigação Científica da FCiências.ID](#)).
7. **Place of work:** The work will be developed at the Research Center LASIGE, in Faculty of Sciences, University of Lisbon, Campo Grande, Lisbon, Portugal under the scientific supervision of Professor José Cecílio.
8. **Fellowship duration:** This position is initially opened for 6 months and will begin on September 2021. The fellowship contract may be potentially renewed for up to 12 months, in accordance with the provisions of Regulation of Research Fellowships from the Foundation for Science and Technology, I.P and FCiências.ID Fellowship Regulation.



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9. **Monthly allowance:** The fellowship amounts to € 957,00, according to [table values](#) of the FCIências.ID Fellowship Regulation. 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. Additionally, it will be paid a tuition fees support grant (SAP) to support the costs with the annual tuition fees.

10. **Evaluation and selection process:** Candidates will be assessed by the quality of their CV , motivation letter (30%) and possibly, a selection interview. If the jury chooses to carry out the selection interview, it will be to the 3 (three) candidates with the best classification in the curriculum evaluation, and the final evaluation will be as follows: 60% for the curriculum evaluation, 20% for the motivation letter and 20% for the selection interview.

11. **Selection Committee:** Professor José Cecílio (President), Professor António Casimiro Ferreira da Costa (1st Member of the jury), Professor Alysson Neves Bessani (2nd Member of the jury), Professor Pedro Miguel Frazão Fernandes Ferreira (1st Alternate Member of the jury) and Professor Nuno Fuentecilla Maia Ferreira Neves (2nd Alternate Member of the jury).

12. **Publication/notification of results:** All the candidates will be notified by e-mail, sent by the call holder, with the selection meeting minutes enclosed.

13. **Deadlines:** This call for applications is open from 26/07/2021 to 06/08/2021 .

14. **Application:** Applications should be sent via e-mail to [cdrosa@fc.ul.pt](mailto:cdrosa@fc.ul.pt), referring the specific call/ project in the subject, by attaching the following documents:

- a. Curriculum vitae – **must provide the CV through the [CIÊNCIAVITAE](#) system;**
- b. Certificate of completion of previous degree;
- c. Motivation letter;
- d. Other documents considered relevant.

15. **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](mailto: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 for 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>.

