

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

### 1 (one) Research fellowship (BI) for MSc 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 ADMORPH - Towards Adaptively Morphing Embedded Systems, fellowship agreement number, financed by European Union's H2020 research and innovation programme under Grant Agreement no. 871259, under the following conditions:

1. **Scientific Area:** Computer Science and Engineering
2. **Requirements for admission:** BSc in Physics and experience in researching of vulnerability detection in both source and binary (assembly) code of embedded systems.
3. **Additional optional skills and qualifications:** Enrolled in 1st year of the Master's degree in Informatics and in courses of Software Security, Software Reliability, Cyberphysical Systems, Parallel and Concurrent Programming, and Security Technologies. Experience with python, C/C++, and Assembly programming languages; Knowledge proven by approval in curricular components in the areas of Operating Systems, Programming, and Computer Networks.
4. **Contracting requirements:** Presentation of the academic qualifications and/or diplomas. Enrollment in MSc studies in Informatics.
5. **Work plan:** Literature review of how to write secure software to cyberphysical systems in order to avoid the insertion of different types of vulnerabilities and attacks associated with the considered vulnerabilities. Study of techniques of analysis and code representation, such as static code analysis in code representation structures; Study of C/C++ and assembly programming languages for implementing secure code and creating procedures/models to remove vulnerabilities in these languages; Design of a model for automatically remove vulnerabilities in source code and assembly by code repair, and validate the new code; Development and testing of a tool for implementing the proposed model.
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](https://www.fciencias.id/regulamento-de-bolsas-de-investigacao-cientifica-da-fciencias.id)).
7. **Place of work:** The work will be developed at LASIGE, Faculty of Sciences of the University of Lisbon under the scientific supervision of Professor Ibéria Medeiros.
8. **Fellowship duration:** This position is initially opened for 4 months and 15 days and due to start in November 2022. The fellowship contract may be potentially renewed for an equal period.
9. **Monthly allowance:** The fellowship amounts to € 875,98, 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*.



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The fellowship will be paid monthly by bank transfer.

10. **Evaluation and selection process:** Candidates will be assessed by Candidates will be assessed by the quality of their CV, Graduation Average, Research Experience and possibly, an individual interview.  
If the selection interview is not carried out, the final evaluation will be obtained considering the following percentages: Curricular Evaluation: 50%; Graduation Average: 30%; Research Experience: 20%.  
If the selection interview is carried out, the final evaluation will be obtained considering the following percentages: Curricular Evaluation: 50%; Graduation Average: 20%; Research Experience: 20%; Individual interview, in person or by videoconference (with attribution of a score on a scale of 0 to 20): 10%.  
Applicants whose application is scored with a final classification of less than 12 points are not eligible for granting a fellowship.
11. **Selection Committee:** Chair: Ibéria Vitória de Sousa Medeiros; Members: Nuno Fuentecilla Maia Ferreira Neves and António Casimiro Costa; Replacement Members: Alysso Neves Bessani and Pedro Miguel Frazão Fernandes Ferreira
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 04/10/2022 to 17/10/2022 .
14. **Application:** Applications should be sent via e-mail to [cdrosa@fc.ul.pt](mailto:cdrosa@fc.ul.pt), referring the ID Admorph/2022/05, by attaching the following documents:
- Curriculum vitae – **CV may be provided in PDF or through the [CIÊNCIAVITAE](#) system;**
  - Certificate of completion of previous degree;
  - 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>.

