## 1 Research Studentship for students of a course that does not award an academic degree

Applications are open for one Research Studentship for students of a course that does not award an academic degree, within the framework of project AI-Radiologist, reference 2024.07344.IACDC, apoiado pela medida "RE-C05-i08.M04 – "Apoiar o lançamento de um programa de projetos de I&D orientado para o desenvolvimento e implementação de sistemas avançados de cibersegurança, inteligência artificial e ciência de dados na administração pública, bem como de um programa de capacitação científica", do Plano de Recuperação e Resiliência – PRR, enquadrado no contrato de financiamento celebrado entre a Estrutura de Missão Recuperar Portugal (EMRP) e a Fundação para a Ciência e a Tecnologia I.P. (FCT), under the following conditions:

Scientific Area: Artificial Intelligence.

## **Admission Requirements:**

- a) to hold a master degree and be enrolled at a course that does not award an academic degree and it is integrated in the educational project of a higher education institution, performed in association or cooperation with one or several R&D units:
- b) not to exceed with this contract, including the possible renovations, an accumulated period of two years in this type of studentship, continuously or with interruptions.

**Workplan**: To develop a two-stage multi-scale deep learning model for the identification and classification of breast lesions in high resolution mammography images. The model should be trained using a combination of weakly supervised learning, for images without local annotations, and fully supervised learning, for images with corresponding bounding box or segmentation of the lesions. The second stage is focused on the classification of the detected lesions as either benign or malignant, to provide radiologists with predictions for each finding.

**Legislation and Regulations:** Statute of Scientific Research Fellow, approved by Law nr. 40/2004, of August 18, as worded by Decree-Law nr. 123/2019, of August 28; FCT Regulation for Research Studentships and Fellowships, available on <a href="https://www.fct.pt/apoios/bolsas/docs/RegulamentoBolsasFCT2019.pdf">https://www.fct.pt/apoios/bolsas/docs/RegulamentoBolsasFCT2019.pdf</a> and <a href="https://dre.pt/application/file/a/127230968">https://dre.pt/application/file/a/127230968</a>.

**Workplace:** The work will be developed at Instituto de Sistemas e Robótica, from Instituto Superior Técnico, under the scientific supervision of Professors Carlos Santiago.

**Duration:** The research fellowship will have a duration of 6 months. It's expected to begin in August and may eventually be renewed up to the maximum of 12 months, including the duration of the initial contract.

Monthly maintenance allowance: According to the values for Research Fellowships awarded by FCT in Portugal (<a href="https://www.fct.pt/fct-atualizou-o-valor-das-bolsas-para-2025/">https://www.fct.pt/fct-atualizou-o-valor-das-bolsas-para-2025/</a>), the amount of the monthly maintenance allowance is € 1309.64, being the payment method by Wire Transfer.

**Selection methods**: Curriculum evaluation (60%) and previous experience on the topics related to the grant (40%). The candidates may be invited for an interview, for additional discrimination between levels of expertise.

Composition of the selection Jury: Carlos Santiago, Catarina Barata and Francisco Calisto.

**Announcement/ notification of the results**: The final evaluation results will be communicated to all applicants by email.

**Deadlines and procedures of complaint and appeal:** A complaint may be lodged from the final decision within 15 working days, or an appeal to the Executive Board of IST within 30 working days, both counted from the respective notification.



Application deadline and formalization: The call is open from June 16 until June 30, 2025.

It is mandatory to formalize applications with the submission of the following documents:

- i) B1 Form Fellowship application (<a href="https://ist-id.pt/concursos/bolsas/">https://ist-id.pt/concursos/bolsas/</a>);
- ii) Curriculum Vitae;
- iii) Academic degree certificate;
- iv) Motivation letter;
- v) declaration on honour that the applicant does not exceed with this contract an accumulated period of two years in this type of studentship, continuously or with interruptions.
- vi) proof of enrollment at a course that does not award an academic degree which must be presented at the time of contract signature.

Applications must be submitted at <a href="https://welcome.isr.tecnico.ulisboa.pt/opportunities/">https://welcome.isr.tecnico.ulisboa.pt/opportunities/</a>

