(BL150/2025-IST-ID)

Scientific Initiation Studentships

Applications are open for 2 Scientific Initiation Studentships, within the framework of project/R&D institution 1801P.01516 – OptSurgAI (2024.07248.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 and Signal Processing

Admission Requirements:

- a) To be enrolled at a professional higher technical course, at a bachelor degree, at an integrated master or master degree, or to have a bachelor 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 one year in this type of studentship, continuously or with interruptions;
- c) not to have held any other fellowship directly or indirectly funded by FCT.

Workplan: One of the goals of personalized medicine is to optimize the patient management protocols, such that these are as specific as possible, to guarantee the highest treatment quality and minimize patient burden. In recent years, AI has started to play a relevant role in the analysis of multimodal (different data sources) healthcare information, towards optimizing patient treatments. OptSurgAI seeks to optimize patient outcomes, through a better understanding of their healthcare information. The students enrolled in the two grants will be working on optimizing treatment protocols for two different types of diseases:

- 1) Development of a multimodal system based on machine learning/AI to characterize patients with various cardiovascular diseases, working in proximity with international hospitals.
- 2) Development of a machine learning model to characterize high risk skin cancer patients that have a high number of suspicious lesions, in order to recommend which lesions to excise and which to follow up.

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 https://www.fct.pt/apoios/bolsas/docs/RegulamentoBolsasFCT2019.pdf and https://dre.pt/application/file/a/127230968.

Workplace: The work will be developed at VisLab – Institute for Systems and Robotics, LARSyS, under the scientific supervision of Prof. Catarina Barata.

Duration: The research fellowship(s) will have the duration of 4 months. It's expected to begin in July 2025 and may be eventually 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 (https://www.fct.pt/fct-atualizou-o-valor-das-bolsas-para-2025/), the amount of the monthly maintenance allowance is €651,12, being the payment method by Wire Transfer.



Selection methods: The selection methods will be the following: *Curriculum evaluation and motivation letter* with the respective weight of 70/30%.

Composition of the selection Jury: Prof. Catarina Barata, Prof. José Santos-Victor, Doctor Carlos Santiago

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-ID within 30 working days, both counted from the respective notification

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

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

B1 Form – Fellowship application (https://ist-id.pt/concursos/bolsas/);

- i) Curriculum Vitae;
- *ii)* academic degree certificate, where applicable;
- *iii*) proof of enrollment at an academic degree course or at a course that does not award an academic degree;
- iv) motivation letter;
- v) declaration on honour that the applicant does not exceed with this contract, including the possible renovations, an accumulated period of one year in this type of studentship, continuously or with interruptions, and has not held any other fellowship directly or indirectly funded by FCT.

Applications must be submitted at https://isr.tecnico.ulisboa.pt/scholarships/

