(BL35/2026 IST-ID)

Scientific Initiation Studentships

Applications are open for 4 Scientific Initiation Studentships, within the framework of project 1801P.01532 – NextGen 101136962, financed by EU funds, under the following conditions

Scientific Area: Artificial Intelligence and Signal Processing

Admission Requirements: *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;*

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. However, healthcare data is sensitive and requires proper mechanisms for guaranteeing the privacy of the patients. Additionally, AI methods that explore this data may ensure that the patients are not identifiable and that all decisions are transparent, promoting trustworthiness. Four research profiles are available under this context:

- **Profile 1 (P1) –** Development of methodologies based on graph neural networks and foundation models to integrate multiple images and metadata of the same patient, leveraging context information.
- **Profile 2 (P2) –** Development of AI methodologies for the automatic extraction of physiological signals, namely ECG and respiratory rate from surgical videos, leading to the creating of synthetic samples.
- **Profile 3 (P3) –** Development of prototype-based AI methods to align unpaired unimodal datasets, leading to the creation of a multimodal embedding space.
- **Profile 4 (P4) –** Development of multimodal explainability AI methods for disease diagnosis and patient prognosis, with the aim of identifying new relationships between modalities.

The students will work closely with experts on healthcare data, AI/machine learning, computer vision, and big data processing.

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; IST Regulation of Scientific Research Fellowships, available on https://drh.tecnico.ulisboa.pt/files/sites/45/despacho_8532_regulamento_bolsas.pdf

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 3 months. It's expected to begin in April 2026 and may be eventually renewed up to the maximum of 12 months, including the duration of the initial contract.

Monthly maintenance allowance: 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%. An interview may be required to support the ranking of the candidates.

Composition of the selection Jury: Prof. Catarina Barata, Prof. Carlos Santiago, and Prof. Plinio Moreno

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

Deadlines and procedures of complaint and appeal. After notification of the provisional list of evaluation results, candidates have a period of 10 working days to, if they wish, make a statement at a preliminary hearing of interested parties, in accordance with Articles 121 et seq. of the Code of Administrative Procedure. The final decision will be made after analyzing the statements presented at the preliminary hearing of interested parties. The final decision may be appealed to the competition jury or to the President of IST-ID within 15 working days of notification

Application deadline and formalization: The call is open March 9 until March 20, 2026.

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

i) B1 Form – Fellowship application (https://ist-id.pt/recursos-humanos/bolseiros/#documentos-relacionados);
ii) *Curriculum Vitae*;
iii) academic degree certificate, where applicable;
iv) motivation letter identifying the profile(s) to which the candidate is applying;
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.

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