

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

Applications are open for 1 Research Studentship for students of a course that does not award an academic degree, within the framework of project Responsible.AI (Contrato nº 12 - IST-ID) financed by national funds PRR (Plano de Recuperação e Resiliência), through IAPMEI - Agência para a Competitividade e Inovação, under the following conditions:

Scientific Area: Biomedical Systems and and Biosignals

Admission Requirements: Bachelor's Degree in Computer Science or related fields; 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; 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.

Workplan: The scholarship holder will develop an electroencephalogram (EEG) - based Brain-Computer Interface (BCI) for controlled language generation with Pretrained Large Language Models (LLMs), including: training and deployment of deep learning models for classification of EEG patterns of brain activity based on a motor imagery paradigm; implementation of the interface between the BCI and the LLM; and acquisition of proof-of-concept data from healthy controls.

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-ID Research Fellowships Regulation, available on https://ist-id.pt/files/sites/43/regulamento-de-bolsas-da-ist_id-2.pdf.

Workplace: The work will be developed at Institute of Systems and Robotics of Instituto Superior Técnico, under the scientific co-supervision of Professor Patricia Figueiredo and Professor Athanasios Vourvopoulos.

Duration: The research fellowship will have the duration of 5 months. It is expected to begin in January 2025, 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 €990.98, being the payment method by wire transfer.

Selection methods: The selection methods will be the following: 1) relevance of academic degree and respective grade (25%); 2) training in advanced machine learning and informatics (25%); 3) motivation letter and availability to work in the research project full-time (25%); e 4) global evaluation by the jury (25%). The jury will interview up to a maximum of three candidates with the highest marks. In order to make a more objective assessment of some of these criteria, the interview will count 50% towards each of the above criteria.

Composition of the selection Jury: Professors Patrícia Figueiredo, Athanasios Vourvopoulos, and João Sanches.

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

Application deadline and formalization: The call is open from December 9 until December 20, 2024.

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

- i) B1 Form – Fellowship application (<https://ist-id.pt/concursos/bolsas/>);
- ii) Curriculum Vitae;

- iii) Official academic degree certificate;
- iv) Proof of enrollment at a course that does not award an academic degree which must be presented at the time of contract signature;
- v) Motivation letter;
- vi) Declaration on honour that the applicant does not exceed with this contract an accumulated period of one year in this type of studentship, continuously or with interruptions.

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