(BL292/2025-IST-ID)

Scientific Initiation Studentships

Applications are open for 3 Scientific Initiation Studentships, within the framework of project "ATE - Aliança para a Transição Energética", Agenda 56 - Projeto C644914747-00000023, financed by the European and Resilience Plan, under the following conditions:

Scientific Area: Informatics Engineering and other closely related field

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;*

The candidate must also:

a) *Have very good English written and oral skills.*

b) *Have very good programming skills in programming languages such as Python, JavaScript.*

c) *Have previous research experience. Particularly in the energy domain will be highly appreciated.*

Workplan:

1. **Interactive UI Development with LLMs and GenAI**
   This internship focuses on building user interfaces for visualizing multi-sensor building data and making them more interactive through LLMs and generative AI. The student will design and implement dashboards that present key insights (e.g., occupancy, consumption patterns) and develop AI-driven features such as natural-language explanations, guided data exploration, and automatic alert generation. The goal is to create intuitive, user-friendly interfaces that help non-experts understand and act upon building performance data.

2. **Understanding User Perspectives & Co-Design**
   This internship centers on understanding the needs and perspectives of different stakeholders interacting with building data and forecasting tools. The student will conduct interviews, focus groups, and qualitative analysis to identify user expectations, perceived benefits, and usability challenges. The findings will inform design improvements, ensuring that future solutions are user-friendly, aligned with real decision-making processes, and tailored to the specific problems users face.

3. **Replication & Deployment in New Building Types**
   This internship focuses on extending the building analytics approach beyond the university campus to diverse environments such as industrial kitchens, factories, or public facilities. The student will design questionnaires to collect contextual information about each site, develop a taxonomy describing different building types, and identify requirements for adapting the existing models and dashboards. The outcome will be a practical plan for scaling and replicating the solution across heterogeneous settings.

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://dre.pt/application/file/a/127230968.

Workplace: The work will be developed at the Interactive Technologies Institute of LARSyS, under the scientific supervision of Dr. Lucas Pereira

Duration: The research fellowships will have the maximum duration of 6 months. It's expected to begin in January 2026.The fellowship is not renewable.

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 an option of the Fellow by Wire Transfer/Check.

Selection methods: The selection methods will be the following:

a) Curriculum Vitae evaluation (70%)

b) Motivation Letter (30%)

c) Individual Interview (as a tie-break procedure), to be conducted online

Composition of the selection Jury: Dr. Lucas Pereira (President), Prof. Hugo Morais, Prof. Augusto Esteves

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 from December 24, 2025 until January 8, 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)   proof of enrollment at an academic degree course or at a course that does not award an academic degree;
v)   motivation letter;
vi)   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 to the email*: lucas.pereira@tecnico.ulisboa.pt (cc: jobs@in3.tecnico.lisboa.pt), with the subject [ATE] Application to BIC – 1 2 3 (where 1 2 3 indicate the topics you are applying to). **Do not submit individual applications for each topic – in case this happens, the first application will be the one considered.**