

(BL221/2024-IST-ID)

One Research Fellowship for PhD students

Applications are open for one Research Fellowship, within the framework of project “BLOCKCHAIN.PT” (Contract no. 51) of IST-ID, funded by national funds through IAPMEI/PRR (Mobilising Agendas for Business Innovation), under the following conditions:

Scientific Area: Environment and Energy.

Admission Requirements: candidates must be enrolled at a PhD.

Workplan: The aim is for the fellowship holder to:

- Advance in the ongoing research on the relation between exergy consumption and economic growth at a national scale;
- Compute and analyse the EROI (Energy Return On Investment) at the useful stage of energy conversion of European economies and establishing a relation between the efficient use of energy and economic growth in the European area;
- Identify possible models which can integrate these outcomes with previous analysis carried on for Portuguese energy intensity and EROI.

The main outcome of this activity will be the identification of the existing relation between the efficient use of energy and economic growth in a broader sense. This will be carried on through the development of a novel approach in the calculation of EROI (Energy Return on Investment) for European economies, widening the boundaries at the useful stage of energy conversion processes. The work is relevant to the completion of a PhD.

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 MARETEC – ACAE/DEM of Instituto Superior Técnico, under the supervision of Professor Tiago Domingos.

Duration: The research fellowship will have the duration of 12 months. It is expected to begin in November 2024 and may be eventually renewed up to the maximum of 48 months, including the duration of the initial contract.

Monthly maintenance allowance: the amount of the monthly maintenance allowance is 1,259.64 €. The payment method will be by Wire Transfer. The payment of Voluntary Social Security will be reimbursed by IST-ID (until the 1st level).

Selection methods: The selection methods will be as follows:

- General knowledge in energy and economic fields: 40% (0/20);
- Experience on energy analysis and managing of economic data at a national scale: 40% (0/20);
- Individual interview (in the event of a tie between the best-placed candidates), where motivation and specific knowledge will be assessed: 20% (0/20).

Composition of the selection Jury: President: Associate Professor Tiago Domingos; Members: Assistant Professor Tânia Alexandra dos Santos Costa e Sousa and Junior Researcher João Alexandre Almeida dos Santos. Substitute: Junior Researcher Gonçalo Marques.



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 from October 30 until November 13, 2024.

It is mandatory to formalize applications with the submission of the following documents: i) B1 Form – Fellowship application Investigação (<https://ist-id.pt/concursos/bolsas>); ii) *Curriculum Vitae*; iii) academic degree certificate; iv) proof of enrollment at a PhD; v) motivation letter.

Applications must be submitted to nuno.sarmiento@tecnico.ulisboa.pt