

(BL114/2025\_IST-ID)

## CALL FOR GRANTS FOR R&D PROJECTS AND INSTITUTIONS

### Research Grant (PhD student)

A call is open for the award of 2 PhD Research Fellowship, within the scope of the project 1801P.01224.1.01 - BE. Neutral, contract No. 35 financed by the Recovery and Resilience Plan under the following conditions:

**Scientific Area:** Mechanical Engineering and Engineering Systems, Energy and Environment

**Admission requirements:** *have a bachelor's or master's degree and be enrolled in a PhD degree course integrated in the educational project of a higher education institution, developed in association or cooperation with one or more R&D units;*

**Work plan:** The selected candidates will contribute to the development and demonstration of a Digital Twin designed for simulating urban environments and mobility systems. The work will support advancements in integrated sustainability management for cities. This work plan is part of the BE.Neutral Agenda, which aims to position Portuguese cities and industries at the forefront of mobility innovation, focusing on carbon neutrality through a new generation of products and services. This agenda seeks to create transformative impacts on the economy, environment, and society. Within this framework, the candidates' research activities will include:

- a) Urban building energy modeling: model and assessment of retrofit solutions for the building stock for different neighborhoods.
- b) Application of optimization techniques to reduce carbon emissions considering retrofit solutions and cross-sectorial technologies (e.g. mobility services; energy storage)

**Programming Skills:** Programming skills: Python, Java Script or others.

**Applicable legislation and regulations:** Law No. 40/2004, of 18 August (Statute of the Scientific Research Grant Holder), as amended by Decree-Law No. 123/2019, of 28 August; IST-ID Regulation for Research Studentships and Fellowships, available on <https://ist-id.pt/recursos-humanos/bolseiros/#documentos-relacionados>.

**Workplace:** The work will be developed at IDMEC/IST, under the scientific supervision of Professor/Doctor João Sousa.

**Duration of the fellowship(s):** The fellowship will have a duration of 8 months, starting in June 2025, not renewable.

**Value of the monthly maintenance allowance:** The amount of the scholarship corresponds to € 1309.64, being the method of payment of the Scholarship Holder by bank transfer.

**Selection methods:** The selection methods will be as follows: curriculum evaluation and motivation letter, with the possibility of conducting an individual interview with the candidates with the best curricular evaluation. In the evaluation of the curriculum, the following factors will be evaluated: Curriculum (80%) and motivation (20%). After the classification of the candidates, an individual interview may be held, in which case the interview will have a weighting of 25% and the curriculum evaluation will have a weighting of 75% in the final classification.

**Composition of the Selection Jury:** Professor João Sousa, Professor Patrícia Baptista, Dr. Ricardo Gomes

**Form of publication/notification of results:** All candidates will be notified by e-mail of the Result of the Evaluation.

**Deadlines and procedures for prior hearing, complaint and appeal:** After communication of the provisional list of the results of the evaluation, candidates have a period of 10 working days to express their views at a prior hearing

of interested parties, under the terms of articles 121 et seq. of the Code of Administrative Procedure. The final decision will be issued after the analysis of the pronouncements presented at the preliminary hearing of interested parties. A complaint may be lodged against the final decision with the Jury of the competition, or an appeal with the President of IST-ID, within 15 working days from the respective notification.

**Application deadline and form of submission of applications:** The call is open from May 6 until May 19, 2025.

Applications must be formalized by sending the following documents: i) Form B1 – Application for Research Grant (<https://ist-id.pt/concursos/bolsas/>), ii) *Curriculum Vitae*; iii) certificate of qualifications, if applicable; iv) proof of enrollment in a cycle of studies leading to the award of an academic degree (doctorate); v) motivation letter;

These documents should be sent via e-mail to: [jobs@in3.tecnico.ulisboa.pt](mailto:jobs@in3.tecnico.ulisboa.pt)