

(BL149/2025-IST-ID)

Research Studentships for Master Students

Applications are open for one Research Studentship, within the framework of project NGS – New Generation Storage/IN+, 1801P.01313 financed by national funds through PRR (Plano de Recuperação e Resiliência), through IAPMEI – Agência para a Competitividade e Inovação, under the following conditions:

Scientific Area: Materials Science and Engineering

Admission Requirements: To be enrolled in a master's degree in Materials Engineering.

Workplan: This work aims to develop a system capable of providing a decision-support parameter regarding the appropriate destination for lithium-ion batteries after their use in motor vehicles: whether to give them a second life—and, if so, what the most suitable application would be—or to discard them by sending them for recycling.

Based on previous studies, the guiding principles for implementing the new analysis method have been defined. The next step is to develop an efficient method that enables the selected parameter, identified in the previous section for assessing battery condition, to be obtained quickly and cost-effectively. This method should be tested and compared with the results obtained from traditional methods, in parallel with the development of a prototype.

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 Regulation for Research Studentships and Fellowships, available on <https://ist-id.pt/recursos-humanos/bolseiros/#documentos-relacionados>.

Workplace: The work will be developed at MATee research group of Centro de Química Estrutural, under the scientific supervision of Prof. João Salvador Fernandes and Prof. Maria de Fátima Montemor.

Duration: The research fellowship will have a duration of 3 months, being expected to begin in July, 2025, and may be eventually renewed up to the maximum of 6 months, including the duration of the initial contract.

Monthly maintenance allowance: the amount of the monthly maintenance allowance is € 1040,98, being the payment method of the Fellow by wire transfer.

Selection methods: The selection methods will be the following: *Curriculum evaluation (50%) and individual interview (50%), both being graded from 0 to 20*. The following will be considered an asset: enrolment in a Materials Engineering course, experience in the area covered by the work plan, and knowledge of electrochemical techniques. Only the top five candidates in the curriculum evaluation will be invited for an individual interview.

Composition of the selection Jury: Prof^a Maria de Fátima Montemor; Prof. João Salvador Fernandes; Prof^a Marta Alexandra Marques Alves

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, or an appeal to the Executive Board of IST-ID, within 15 working days counted from the respective notification.

Application deadline and formalization: The call is open from June 16 until June 30, 2025.

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) academic degree certificate, where applicable; iv) proof of enrollment at an academic degree course (Master); v) motivation letter.

Applications must be submitted to the email: joao.salvador@tecnico.ulisboa.pt