

(BL117/2022-IST-ID)

Research Studentships (master's students or integrated master's students)

Applications are open for 2 Research Studentship(s), within the framework of project/R&D institution "Plastics in a Circular Economy"/IST-ID - 1801P.00813 PTDC/QUE-QUE/29614/2017, financed by national funds through FCT/MCTES (PIDDAC), under the following conditions:

Scientific Area: Chemical Reaction Engineering

Admission Requirements: *To be enrolled in an integrated master's program or master's program.*

Workplan: This project aims to develop technologies that allow the material and/or energy recovery of plastic waste for the production of basic chemicals, including fuels, through pyrolysis and/or catalytic gasification processes. The project will cover three main stages, synergistically developed: a) Evaluation of the potential of plastic mixtures originating from waste collection and treatment systems, industrial and municipal, including landfills. b) Development of efficient catalysts for catalytic degradation of plastic materials using small-scale techniques. (c) the development of advanced reaction systems to carry out the transformation in an energy-efficient manner. It is expected to develop an innovative process through dedicated units, or by resorting to co-processing with other materials.

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://www.fct.pt/apoios/bolsas/docs/RegulamentoBolsasFCT2019.pdf> and <https://dre.pt/application/file/a/127230968>.

Workplace: The work will be developed at CERENA at Instituto Superior Técnico under the scientific supervision of Professor Maria Amélia Lemos

Duration: The research fellowship(s) will have a duration of 4 months. It's expected to begin in June 2022 and the contract is not renewable.

Monthly maintenance allowance: According to the values for Research Fellowships awarded by FCT in Portugal (<http://www.fct.pt/apoios/bolsas/valores>), the amount of the monthly maintenance allowance is 875.98 €, being the payment method an option of the Fellow by Wire Transfer/Check.

Selection methods: The selection methods will be as follows: A ranking of the candidates will be carried out based on a) the curriculum evaluation (50%, scale 0-20) taking into account the requirements of admission, b) suitability of the candidate's CV to the theme of the scholarship (30%, scale 0-20) and c) motivation letter (20%, scale 0-20). After establishing the ranking based on the above parameters, if there are candidates who obtain a classification with a difference less than 1 (one) value of the 2nd best-ranked candidate, an interview will be conducted, as an evaluation aid of these candidates (in this case the interview has a weighting factor of 25% and the set of points a) + b) + c) 75%, scale 0-20).

Composition of the selection Jury: Prof^a Maria Amélia Lemos (President), Prof^a Maria Teresa da Cruz Carvalho (vogal) e Prof. Francisco Manuel da Silva Lemos (vogal)

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 2 until 20 June, 2022.

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 or integrated master); v) motivation letter;

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