

(BL254/2024, IST-ID)

Research Studentships (Master or Integrated Master students)

Applications are open for 1 Research Studentship, within the framework of *PARADiSE* 1801P.01119.1.01, PTDC/FIS-PLA/1616/2021, financed by national funds through FCT/MCTES (PIDDAC), under the following conditions:

Scientific Area: Plasma Physics and Nuclear Fusion (FIS-PLA)

Admission Requirements: *To be enrolled at an integrated master or a master.*

Workplan: The PARADiSE project consists of a deep theoretical, numerical, and experimental investigation into the decomposition of CO₂ plasma, a key step in the process of storing renewable energy in synthetic fuels. The project aims to reveal the underlying mechanisms of CO₂ dissociation by plasma, identify the optimal conditions for the operation of the plasma reactor, and produce a prototype. This work will particularly focus on the development of actinometry techniques for the experimental measurement of radicals in low-temperature plasmas.

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 Institute for Plasmas and Nuclear Fusion (IPFN) under the scientific supervision of Professor Vasco Guerra.

Duration: The research fellowship will have the duration of 4 months and is expected to begin in November 2024, with possibility of extension of 1 month. When the academic degree or diploma is awarded during the term of the scholarship contract, the scholarship can be completed under the contractual terms established.

Monthly maintenance allowance: According to the values for Research Fellowships awarded by FCT in Portugal (https://www.fct.pt/wp-content/uploads/2024/02/Tabela-de-Valores-SMM_atualizacao-2024.pdf), the amount of the monthly maintenance allowance is € 990,98, being the payment method an option of the Fellow by Wire Transfer/Check.

Selection methods: The selection methods will be the following: curriculum evaluation, motivation letter and reference letters, classified on a scale from 1 to 5, with the respective weights of 40%, 30% and 30%. Preferential factor: experience in modelling or laboratory work in plasmas.

Composition of the selection Jury: Pedro Viegas, Tiago Silva and Vasco Guerra

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 21 until November 4, 2024.

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, Integrated Master); v) motivation letter;

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



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