

(BL261/2022-IST-ID)

Scientific Initiation Studentships

Applications are open for one Scientific Initiation Studentships, within the framework of project *Reaching Oxygen-Accumulated production through non-thermal Discharges on MARS (ROADMARS)* in da Associação do Instituto Superior Técnico para a Investigação e Desenvolvimento, 1801P.01137 EXPL/FIS-PLA/0076/2021, financed by national funds through FCT/MCTES (PIDDAC) under the following conditions:

Scientific Area: Plasma Physics

Admission Requirements:

- a) *To be enrolled at a professional higher technical course, at a bachelor degree, at an integrated master or master degree, or to have a bachelor degree and be enrolled at a course that does not award an academic degree and it is integrated in the educational project of a higher education institution, performed in association or cooperation with one or several R&D units;*
- b) *not to exceed with this contract, including the possible renovations, an accumulated period of one year in this type of studentship, continuously or with interruptions;*
- c) *not to have held any other fellowship directly or indirectly funded by FCT.*

Workplan: The goal of project ROADMARS is to study non-thermal plasmas with the potential to stimulate molecular vibrations of CO₂ while favoring dissociative channels to produce oxygen under Martian environment. This will allow investigating new and promising conditions to utilize CO₂ and to test the integration of plasma reactors in future missions to Mars. In this scholarship the selected student will use modelling tools and optical diagnostics to study nanosecond plasma discharges. The work will be done in collaboration with Dr. Nikolay Britun (consultant of project ROADAMRS) from Nagoya University in Japan.

Workplace: The work will be developed at the Institute for Plasmas and Nuclear Fusion and Nagoya University under the scientific supervision of Dr. Tiago Silva and Dr. Nikolay Britun, respectively.

Duration: The research fellowship will have the duration of 3 month. It's expected to begin in April 2023, and may be eventually renewed up to the maximum of 2 months.

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 € 486,12, 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%.

Composition of the selection Jury: Tiago Silva, Vasco Guerra ,Pedro Viegas e Nikolay Britun

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 January 20 until February 2, 2023.

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 or at a course that does not award an academic degree; v) motivation letter; vi) declaration on honour that the applicant does not exceed with this contract, including the possible renovations, an accumulated period of one year in this type of studentship, continuously or with interruptions, and has not held any other fellowship directly or indirectly funded by FCT.

Applications must be submitted to the email: carla.reis@ist.utl.pt