

(BL240/2023-IST-ID)

Research Studentships (for Master or Integrated Master students)

Applications are open for one Research Studentship, within the framework of project 1801P.01003.1.03 LARSYS/ISR (UIDP/50009/2020) - DSOR financed by national funds through FCT/MCTES (PIDDAC), under the following conditions:

Scientific Area: Automation, Control and Robotics

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

Workplan: Study and documentation of control and navigation models and algorithms for surface vehicles. Study, design, and implementation of functionality to turn a radio-controlled platform into an autonomous surface vehicle (ASV). This includes development and integration of navigation and control systems and exploitation of communication between the ASV and a ground command station. Design and implementation of ASV motion controllers for path and trajectory following, involving aggressive maneuvers, as well as navigation algorithms (e.g. extended Kalman filter). Documentation of the developed work.

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 ISR of IST, under the scientific supervision of Doctor David Cabecinhas.

Duration: The research fellowship(s) will have the duration of 12. It's expected to begin in October 2023, and may be eventually renewed.

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 € 930,98, being the payment method an option of the Fellow by Wire Transfer/Check.

Selection methods: The selection methods will be the following: *Curriculum evaluation (60%), Experience with the ROS2 framework and a solid knowledge on navigation and control (40%).*

Composition of the selection Jury: Doutor David Alexandre Cabecinhas (n.º. mec. 4610), Professora Rita Maria Mendes de Almeida Correia da Cunha (n.º. mec. 5697), Professor Pedro Tiago Martins Batista (n.º. mec. 4388).

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 September 13 until 26 September, 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 (Master, Integrated Master); v) motivation letter;

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