

Research Studentships (for students of a course that does not award an academic degree)

Applications are open for one Research Studentship(s), within the framework of project/R&D institution (1801P.01158.1.04) LA/P/0083/2020 - ISR - SIPG LAB/ISR, with the financial support of FCT/MCTES through national funds, under the following conditions:

Scientific Area: Automation, Control and e Robotics and Signal Processing

Admission Requirements:

a) to hold a bachelor or master 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 two years in this type of studentship, continuously or with interruptions.

Workplan: Sparse-view 3D reconstruction plays a critical role in scenarios where acquiring dense image collections is infeasible, such as in robotics, augmented and virtual reality (AR/VR), and autonomous systems. In these contexts, the limited overlap between images hinders reliable correspondence estimation, leading to the breakdown of conventional methods like structure-from-motion (SfM) and multiview stereo (MVS). This work highlights recent progress across three main directions: neural implicit representations (e.g., NeRF and its regularized variants), explicit point cloud-based techniques (e.g., 3D Gaussian Splatting), and hybrid approaches that integrate priors from diffusion models and vision foundation models (VFM). Also, special attention will be given to link the methodologies above with active learning since the human can be in the loop during the 3D reconstruction.

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 Instituto de Sistemas e Robótica of Instituto Superior Técnico, under the scientific supervision of Profs. Jacinto Nascimento and Fabio Faria.

Duration: The research fellowship(s) will have a duration of 12 months. It's expected to begin in november/2025, and not renewed.

Monthly maintenance allowance: According to the values for Research Fellowships awarded by FCT in Portugal (<https://www.fct.pt/fct-atualizou-o-valor-das-bolsas-para-2025/>), the amount of the monthly maintenance allowance is € 1 309,64€, being the payment method by Wire Transfer/Check.

Selection methods: The selection methods will be the following: *Curriculum evaluation, individual interview*, with the respective weight of 60% and 40%.

Composition of the selection Jury: Jacinto Nascimento, Fabio Faria and Francisco Calisto

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 November 6 until November 19, 2025.



Fundação
para a Ciência
e a Tecnologia

It is mandatory to formalize applications with the submission of the following documents: i) B1 Form – Fellowship application (<https://ist-id.pt/recursos-humanos/bolseiros/#documentos-relacionados>); ii) *Curriculum Vitae*; iii) academic degree certificate, where applicable; iv) proof of enrollment 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 an accumulated period of two years in this type of studentship, continuously or with interruptions.

Applications must be submitted through the website: <https://welcome.isr.tecnico.ulisboa.pt/opportunities/>



Fundação
para a Ciência
e a Tecnologia