

(BL225/2022-IST-ID)

Post-Doctoral Research Fellowships

Applications are open for 1 Post-Doctoral Research Fellowship, within the framework of project “HemoControl”, reference PTDC/MAT-APL/7076/2020, financed by national funds through FCT/MCTES (PIDDAC), under the following conditions:

Scientific Area: Mathematics (Numerical Analysis, Optimization, Mathematical Modelling)

Admission Requirements:

- a) *to hold a PhD degree in Mathematics, Computational Mechanics or Biomedical Engineering, obtained in the 3 years previously to the submission of the fellowship application;*
- b) *to have carried out the research work that led to the PhD degree in a different entity from the host institution of the fellowship;*
- c) *Not to exceed, with this fellowship contract, including the possible renovations, an accumulated period of 3 years in this type of fellowship, continuously or with interruptions;*
- d) *Not to have previously held a post-doctoral fellowship from IST.*

Additional information concerning the procedures for the degree recognition may be obtained through the email Jorge.tiago@tecnico.ulisboa.pt

Workplan: Development of mathematical and computational techniques for data assimilation in the frame of blood flow modelling using continuum mechanics principles. To be developed in the frame of the tasks of the project HemoControl.

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 the Center for Computational and Stochastic Mathematics of Instituto Superior Técnico (CEMAT, IST-ID), under the scientific supervision of Jorge Tiago and possibly other members from the Hemocontrol project’s team.

Duration: The research fellowship will have the duration of 12 months. It is expected to begin in December/2022 or January/2023, with some flexibility. This fellowship 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 € 1686, being the payment method an option of the Fellow by Wire Transfer/Check.

Selection methods: The selection method consists of curriculum evaluation with possible individual interview. The curriculum evaluation aims at accessing the research experience in fluid mechanics, reflected in publications/theses considering mathematical models of partial differential equations for fluid flows. Preference will be given to applications in blood flow modeling (5pts), data assimilation (3 pts), optimal control (3 pts) or feedback control (3pts). In case further clarification is needed, up to three top candidates may be selected for individual interview, to take place via Zoom. In this case, the final classification will be 70% for the Curriculum Evaluation + 30 % for the Individual Interview.

Composition of the selection Jury: Jorge Tiago, Adélia Sequeira and Ana Leonor Silvestre

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 11 until November 24, 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; iv) motivation letter; v) declaration on honour that the applicant does not exceed with this contract an accumulated period of three years in this type of fellowship, continuously or with interruptions, within the portuguese technological and scientific system, and that the research work that led to the PhD degree was carried out in a different entity from the host institution of the fellowship.

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