(BL139/2025-IST-ID)

Scientific Fellowship for PhD student

Applications are open for 1 PhD Fellowship, within the framework of project 1801P.01373 - NOSEVAC-Modelling/CEMAT, financed by international funds through European Union, under the following conditions:

Scientific Area: Applied Mathematics

Admission Requirements:

a) *At the time of application, the candidate must be in possession of a Master degree in Mathematics, Statistics, Biostatistics, Data Science, Computer Science, or a related field, or have expected graduation date in such Master before the official date of this position.*

b) *To be eligible for this fellowship, the candidate must be accepted and enrolled at a PhD program in the next academic year;*

Specific requirements:
- *Research motivation, responsibility, and independence.*
- *Excellent verbal and written English communication skills*
- *Experience in ordinary and partial differential equations, statistical analysis, applied mathematics and probability, data science, preferably with applications to biological models (courses, reports, projects)*
- *Strong proficiency in Python and/or R for data analysis and other software for statistical and mathematical modeling*
- *Strong communication and collaboration skills, especially in a multidisciplinary team environment*

Workplan: To develop mathematical and computational methodologies to study infection processes and vaccination effects for experimental *in-vivo* systems. The project will require integration of biology with dynamical systems, ordinary differential equations, linear algebra, calculus and probability and statistics.

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; IST-ID Regulation for Research Studentships and Fellowships, available on https://ist-id.pt/recursos-humanos/bolseiros/#documentos-relacionados.

Workplace: The work will be developed at CEMAT of IST-ID, under the scientific supervision of Dr. Erida Gjini, within the framework of the NOSEVAC-Modeling project.

Duration: The PhD fellowship will have the duration of 36 months. It's expected to begin in September 2025.

Monthly maintenance allowance: the amount of the monthly maintenance allowance is € 1309,64 being the payment method of the Fellow by wire transfer.

Selection methods: The selection methods will be the following: Curriculum evaluation including average grade of the Bachelor's and Master's degrees in Mathematics or related area (70%), letter(s) of recommendation (10%) and interview (20%).

Composition of the selection Jury: Dr. *Erida Gjini (president), Dr Susana Vinga (member), Dr. Sten Madec* (member)

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, or an appeal to the Executive Board of IST-ID, within 15 working days counted from the respective notification.

Application deadline and formalization: The call is open from may 26 until May 30, 2025.

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; and <u>expected date of graduation</u> from a Master degree if applicable,
iv)   Motivation letter,
v)   Transcript of grades and relevant courses/trainings;
vi)   At least one recommendation letter by recent professor or supervisor,
vii)   An example of mathematical modeling work by the candidate (optional)

Applications must be submitted to the email: *erida.gjini@tecnico.ulisboa.pt*