CALL FOR GRANT APPLICATIONS
(AE2025-0534)

INESC TEC is now accepting grant applications to award 1 Research Initiation Grant (BII) within the scope of the on the scope BioProtect with reference 101157341 funded by the European Commission under the Horizon Europe program for the period 2021-2027.

1. GRANT DESCRIPTION

Type of grant: Research Initiation Grant (BII)

General scientific area: ENGINEERING

Scientific subarea: Electrical engineering

Area of Work: Robotics, Autonomous Systems

Grant duration: 12 months, starting on 2026-01-10.

Scientific advisor: Alfredo Martins

Workplace: INESC TEC, Porto, Portugal

Maintenance stipend: € 651.12, according to the table of monthly maintenance stipend for FCT grants , paid via bank transfer. Grant holders may be awarded potential supplements, according to a quarterly evaluation process (Articles 19, 21 and 22 of the Regulations for Grants of INESC TEC and Annex II), up to a maximum limit of 50% of the monthly maintenance stipend.

INESC TEC supports costs with registration, enrolment or tuition fees, during the grant duration, under the terms established in the internal document: "Payment of Tuition fees to grant holders".

The grant holder will benefit from health insurance, supported by INESC TEC.

2. OBJECTIVES:

- Contribute to the development of the new BioSampler solution for collecting DNA in the marine environment, ensuring the reliability and effectiveness of scientific campaigns.
- Develop intuitive graphical interfaces for the BioSampler system.
- Integrate software and hardware, ensuring reliable data acquisition and micro-hydraulic control.
- Ensure the usability and suitability of the system to the needs of end users.

3. BRIEF PRESENTATION OF THE WORK PROGRAMME AND TRAINING:

The work to be developed within the scope of the Bioprotect project will focus on the development and integration of software and hardware solutions for the BioSampler system, with particular emphasis on graphical user interfaces and embedded systems. The work plan includes the design and implementation of graphical interfaces and applications for system control and data visualization, supported by a database for recording and analyzing the collected information. In parallel, hardware and firmware in C will be developed, including the communication protocol with sensors and the control of the system's micro-hydraulics, ensuring functional demonstration and data visualization. The work also involves interaction with end users to gather requirements, the creation of prototypes in Figma, monitoring of developments in the field, and the preparation of technical documentation and user manuals.

4. REQUIRED PROFILE:

Admission requirements:

Bachelor's or Master's student in Electrical Engineering and Computers or similar
The awarding of the fellowship is dependent on the applicants' enrolment in study cycle or non-award courses of Higher Education Institutions.

Preference factors:

- Experience in micro-hydraulics systems applied to scientific instrumentation.
- Experience in graphical user interface development with emphasis on usability and user experience.
- Experience in sensor validation and calibration in both laboratory and field environments.
- Ability to work within multidisciplinary teams and to adapt to demanding operational scenarios.

Minimum requirements:

- Experience in graphical user interface development, including design in Figma and implementation using JavaScript, Node.js and React.
- Experience with PostgreSQL databases.
- Experience in hardware/software integration, including sensors, converters, and testing.
- Experience in C programming for microcontrollers.
- Professional proficiency in both Portuguese and English.

5. EVALUATION OF APPLICATIONS AND SELECTION PROCESS:

Selection criteria and corresponding valuation: the first phase comprises the Academic Evaluation (AC), based on the criteria referred to in Article 12 of the Regulations for Grants of INESC TEC, while the second phase comprehends the Individual Interview (EI). All factors are evaluated on a scale of 0 to 100, taking into account the applicants' merit, suitability and conformity with the preference factors.
The weight of the AC factors are as follows: Academic Qualifications (FA, 60%), Scientific Publications (PC, 0%), Experience (EX, 20%) and Motivation Letter (CM, 20%).
Candidates who score less than 50 points in the AC average will be considered excluded on absolute merit. The top five candidates approved on absolute merit will be qualified for the individual interview. The Final Grade (CF) is obtained by the weighted average of AC (80%) and EI (20%).

DISABILITY INCENTIVE

Candidates who present a degree of disability equal to or greater than 90% will benefit from an incentive (20) in the score of the CV Assessment.
Candidates who present a degree of disability equal to or greater than 60% and less than 90% will also benefit from an incentive (10) in the score of the CV Assessment.
Said score may, in these cases, exceed 100 points.
Candidates must demonstrate the degree of disability during the application, namely through the submission of the Multi-Purpose Medical Certificate of Disability, issued in accordance with Decree-Law no. 202/96, of October 23 - currently in effect.
Candidates must declare, in the application form, the type of disability used throughout the selection process, in order to proceed with the required adaptations.

The Selection Jury is composed of the following members:

President of the Jury: Ana Paula Lima
Full member: André Dias
Full member: Hugo Miguel Silva
Substitute member:

Release of results and prior hearing: the results of the selection process, as well as the terms and procedures for prior hearing, will be released to the applicants by email, under the terms referred to in Article 13 of the Regulations for Studentships and Fellowships of INESC TEC.

6. FORMALISATION OF APPLICATIONS:

Application Documents:

1. Motivation letter;
2. Curriculum Vitae (must include the list of previous fellowships, their type, beginning and end dates, funding entities and host institutions);
3. Certificate or diploma degree;
4. Proof of enrollment in a degree awarding study cycle or in a non degree awarding Higher Education program.
    - The proof of enrollment may be presented just during the grant hiring stage.
5. Signed declaration stating not having benefited from any other research fellowship (Article 5, no. 5)
6. Documental evidence to support the country of residence, residence permit or other legally equivalent document, in cases where the applicant is a foreigner or non-resident in Portugal - valid until the beginning of the grant.
7. Other supporting documents relevant to the final assessment.

Failure to deliver the required documents within the 90-day period after the date of the notice of the conditional awarding of the grant implies its cancellation.

Application period: From 2025-11-20 to 2025-12-05

Submission of applications: the application will be formalised by submitting the form available in the *Work With Us* section of INESC TEC website.

7. BINDING LEGISLATION AND REGULATION

The hiring process shall comply with the current legislation regarding the Research Grant Holder Statute, approved by Law no. 40/2004 of August 18, in its current wording, as well as by the Regulations for Grants of INESC TEC and for FCT Grants Regulation in force.

For more information, please check the Regulations for Grants of INESC TEC and relevant annexes at www.inesctec.pt/bolsas

Funded by the European Union