

CALL FOR GRANT APPLICATIONS (AE2025-0557)

INESC TEC is now accepting grant applications to award 1 Research Grant (BI) within the scope of the Multiannual Funding of R&D Units 2025-2029, with the reference UID/50014/2025, Funded by national funds through the Portuguese Foundation for Science and Technology (FCT), I.P.

1. GRANT DESCRIPTION

Type of grant: Research Grant (BI)

General scientific area: ENGINEERING

Scientific subarea: Electrical engineering

Area of Work: Research in Collaborative Robotic Solutions

Grant duration: 12 months, starting on 2026-01-07, with the possibility of being renewed for a maximum term of four years, in the cases of students enrolled in a PhD.

Scientific advisor: Filipe Neves Santos

Workplace: INESC TEC, Porto, Portugal

Maintenance stipend: € 1309.64, [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:

The position falls within an R&D project dedicated to the study and development of collaborative robotic solutions.

In agriculture, forestry, and industry, highly repetitive and physically demanding tasks persist, negatively affecting the health and productivity of workers. Robotic exoskeletons and collaborative manipulators emerge as promising solutions to mitigate this problem, improving ergonomics, quality of life at work, and operational efficiency.

However, current solutions still have limitations in terms of performance, comfort, and cost, so this project aims to explore new concepts, architectures, and control strategies applied to collaborative robotics.

3. BRIEF PRESENTATION OF THE WORK PROGRAMME AND TRAINING:

- Conduct an in-depth state-of-the-art study on collaborative robotics and exoskeletons applied to improving working conditions in demanding environments.
- Study and develop brushless motor controllers for robotic actuators in collaborative applications.
- Design and prototype next-generation exoskeletons with greater efficiency, comfort, and adaptability.
- Conduct laboratory tests for functional and ergonomic validation.

4. REQUIRED PROFILE:

Admission requirements:

Master Degree in Electrical and Computer Engineering, Mechatronics, Robotics or related fields

The awarding of the fellowship is dependent on the applicants' enrolment in study cycle or non-award courses of Higher Education Institutions.

Preference factors:

- Previous experience in exoskeleton or wearable robotic systems development projects
- Knowledge and experience in programming RP2040 microcontrollers (Raspberry Pi Pico) in C
- Experience in the development and integration of CAN (Controller Area Network) communication systems
- Ability to work autonomously and a liking for applied research and rapid prototyping

Minimum requirements:

- PhD student in Electrical and Computer Engineering, Mechatronics, Robotics or related fields
- Good knowledge of C/C++ 2 ROS2 programming

Minimum requirements:

Doctoral student in the areas of Electrical and Computer Engineering, Mechatronics, Robotics or related fields.

The granting of the scholarship presupposes that the candidate is a student in a study cycle or a non-degree course, taught at a Higher Education Institution.

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, 45%), Scientific Publications (PC, 5%), Experience (EX, 45%) and Motivation Letter (CM, 5%).

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: Filipe Neves Santos

Full member: Luís Carlos Santos

Full member: André Rodrigues Baltazar

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 the infringement of the grant holder's duties (article 14, no. 4)
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 2025-11-27 to 2025-12-12

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



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