CALL FOR GRANT APPLICATIONS
(AE2024-0554)

INESC TEC is now accepting grant applications to award 1 Research Initiation Grant (BII) within the scope of the AI-based Robotic Solution Addressing Compensatory Patterns for Upper Limb Rehabilitation(CTI), Co-financed by Component 5 - Capitalization and Business Innovation of core funding for Technology and Innovation Centres (CTI), integrated in the Resilience Dimension of the Recovery and Resilience Plan within the scope of the Recovery and Resilience Mechanism (MRR) of the European Union (EU), framed in the Next Generation EU, for the period 2021 - 2026, with reference 21.

1. GRANT DESCRIPTION

Type of grant: Research Initiation Grant (BII)

General scientific area: ENGINEERING

Scientific subarea: Electrical engineering

Area of Work: Informatics, electrical and electronic, and biomedical Engineering

Grant duration: 6 months, starting on 2025-02-01, with the possibility of being renewed for a maximum term of one year.

Scientific advisor: Hélder Filipe Oliveira

Workplace: INESC TEC, Porto, Portugal

Maintenance stipend: € 601,12, 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:

Stroke, a vascular disorder affecting the nervous system, is the third-leading cause of death and disability combined. Currently, 101M people worldwide live with the consequences of this medical condition that typically causes loss of limb function. Rehabilitation is crucial to promote the recovery of normal motion and to improve the quality of life of stroke survivors, which typically develop some forms of compensation to cope with their limb function limitations in order to complete daily tasks. Even then, the compensation patterns need to be detected and corrected during the rehabilitation to achieve long-term recovery of normal limb function. Technology advances have been shaping rehabilitation in different ways, such as providing more information to therapists, supporting patients, and promoting their engagement through gamification.
The objective of this work is to develop therapist and patient interfaces, including front-end design that provides the patient easily understandable and motivational graphics to monitor the exercise. The applications must be easy to customize and use without requiring technological know-how about the AI-Care4U system.

3. BRIEF PRESENTATION OF THE WORK PROGRAMME AND TRAINING:

- extend the knowledge of the state of the art in serious games for health;
- identify and select the appropriate methods for the study in question;
- develop the research capacity through the application of the selected methods;

- exercise a critical spirit in the evaluation of the research process and the results obtained.

4. REQUIRED PROFILE:

Admission requirements:
Bachelor in Informatics, electrical and electronic, and biomedical Engineering
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 research projects, and writing of scientific papers.

Minimum requirements:
Experience in human computer interaction tools

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, 40%), Scientific Publications (PC, 10%), Experience (EX, 20%) and Motivation Letter (CM, 30%).
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: Hélder Filipe Oliveira
Full member: Tânia Pereira
Full member: Ana Filipa Sequeira
Substitute member: Daniela Santos

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 2024-12-19 to 2025-01-03

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