CALL FOR GRANT APPLICATIONS

(AE2026-0139)

INESC TEC is now accepting grant applications to award 1 Research Grant (BI) within the scope of the project Rescueware, with reference 21746 (NORTE2030-FEDER-02306900) Co-funded by ERDF - European Regional Development Fund through the NORTE 2030 Regional Program under the scope of Portugal 2030.

1. GRANT DESCRIPTION

Type of grant: Research Grant (BI)

General scientific area: COMPUTER SCIENCE

Scientific subarea: Informatics

Area of Work: Storage Systems

Grant duration: 12 months, starting on 2026-07-01, with the possibility of being renewed until the end of the project.

Scientific advisor: Cláudia Vanessa Brito

Workplace: Braga

Maintenance stipend: € 1359.64, **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 main objectives of this scholarship are to research and develop more autonomous and efficient storage solutions that ensure data availability and immutability, for example, in the face of ransomware attacks.

In greater detail, the aim is to explore new solutions that leverage various storage media (e.g., disk types, local and remote storage) to ensure high availability and information durability. To this end, data checkpointing and replication techniques will be explored. Furthermore, to ensure the correct configuration and use of these techniques, automation approaches (e.g., based on artificial intelligence) will also be investigated.

As a result, a new solution is expected to guarantee the high availability of critical information, with high performance and efficient resource utilization (e.g., CPU, memory, network, disk).

3. BRIEF PRESENTATION OF THE WORK PROGRAMME AND TRAINING:

The work plan for this scholarship includes the following main activities:

- Research and development of tiering mechanisms for data replication and checkpointing: design and implementation of new mechanisms that can leverage various storage media to ensure data durability and recovery.

- Solution automation: study of techniques that enable the automatic configuration and optimization of the aforementioned techniques, for example, through the use of artificial intelligence.

- Experimental evaluation: validation of the developed features through experimental testing, assessing the performance and efficiency of the developed techniques in comparison with existing approaches.

4. REQUIRED PROFILE:

Admission requirements:

- MSc Degree in Informatics 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 with the C++ programming language.

- Proven experience with the use of Scikit-learn and PyTorch.

Minimum requirements:
- Solid knowledge of storage systems, namely file systems and block-oriented systems.
- Proven experience with data replication and checkpointing techniques, supported by technical evidence (code repositories, projects, functional prototypes, papers, or theses), including public URLs for the same, or by submitting them as an attachment to the application.
- Proven experience with the use and optimization of AI systems, supported by technical evidence (code repositories, projects, functional prototypes, papers, or theses), including public URLs for the same, or by submitting them as an attachment to the application.

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, 50%), Scientific Publications (PC, 20%), Experience (EX, 20%) and Motivation Letter (CM, 10%).
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: Cláudia Vanessa Brito

Full member: João Tiago Paulo
Full member: Tânia Esteves
Substitute member: Ricardo Gonçalves Macedo

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 2026-05-14 to 2026-05-27

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