

CALL FOR GRANT APPLICATIONS (AE2023-0532)

INESC TEC is now accepting grant applications to award 1 Research Grant (BI) within the scope of the ATE funded by IAPMEI with reference 56 Co-financed by Component 5 - Capitalization and Business Innovation, 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.

1. GRANT DESCRIPTION

Type of grant: Research Grant (BI)

General scientific area: COMPUTER SCIENCE

Scientific subarea: Database management, Informatics

Area of Work: Distributed Systems

Grant duration: 6 months, starting on 2024-02-01 with the possibility of being renewed for a maximum term of one year, in cases where the grant has been awarded to students who are enrolled in non-award courses, or up to two years, in the cases of students enrolled in a master's degree.

Scientific advisor: Ana Nunes Alonso

Workplace: INESC TEC, Braga, Portugal

Maintenance stipend: € 930,98, [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:

This grant is contextualized by the project "Aliança para a Transição Energética (ATE)" which will design a cloud-based multi-tenant platform, to serve as an integrator for services with data originating from several domains, interoperable, and simple to instantiate for stakeholders in the energy value chain. Objectives are to:

- broaden knowledge in this grant's specific scientific area beyond the state-of-the-art;
- identify and select appropriate methodology for the work at hand;
- develop research skills by applying the selected methodology;
- critically assess the conducted research and its results.

3. BRIEF PRESENTATION OF THE WORK PROGRAMME AND TRAINING:

In the context of project ATE, it will be necessary to develop access control and data management mechanisms to support calculating circularity indicators. These should also ensure the persistence of the resulting values as well as of the data that support the calculation, tolerating failures. As such, the following activities have been defined for this grant:

- to explore data sharing alternatives, taking the IDS architecture into consideration, focusing on access control capabilities;
- to develop the data sharing mechanism to support circularity indicator calculations;
- to develop a fault tolerant data persistence mechanism, using heterogeneous replication techniques;

- to write a dissertation on the topic of the work done in the context of this grant;
- write an activity report regarding the grant.

4. REQUIRED PROFILE:

Admission requirements:

- Be enrolled in a MSc program in computer science or 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:

- Knowledgeable in heterogeneous replication systems.

Minimum requirements:

- Knowledgeable in Distributed Systems;
- Knowledgeable in Fault Tolerance.

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, 0%), Experience (EX, 40%) 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%).

The Selection Jury is composed of the following members:

- President of the Jury: Ana Nunes Alonso
- Full member: José Orlando Pereira
- Full member: Fábio André Coelho
- Substitute member: Ricardo Pereira Vilaça

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 2023-12-28 to 2024-01-12

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

