

CALL FOR GRANT APPLICATIONS

(AE2026-0303)

INESC TEC is now accepting grant applications to award 1 Research Grant (BI) 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: COMPUTER SCIENCE,ENGINEERING,MATHEMATICS

Scientific subarea: Electrical engineering,Applied mathematics,Informatics,Computer engineering

Area of Work: Energy Systems – Distributed Artificial Intelligence and Edge Computing

Grant duration: 8 months, starting on 2026-12-01, with the possibility of being renewed until the end of the project.

Scientific advisor: José Ricardo Andrade

Workplace: INESC TEC, Porto, Portugal

Maintenance stipend: € 1090.98 or 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:

- Deepen scientific and technical knowledge in the field of edge computing and distributed artificial intelligence applied to energy systems, with a particular focus on the operation and control of distributed energy resources.
- Study methodologies for the local execution of forecasting, optimization, and control algorithms on edge devices with limited computational resources.
- Develop skills in applying machine learning techniques and large/small language models on edge devices, including the assessment of performance, latency, robustness, and computational efficiency requirements.
- Investigate smart charging and electric vehicle flexibility management methodologies, including charging session forecasting, flexibility estimation, and support for smart charging strategies, potentially including Vehicle-to-Grid (V2G).
- Contribute to the implementation and experimental validation of Edge AI solutions using devices such as gateways, embedded systems, and electric vehicle chargers.

3. BRIEF PRESENTATION OF THE WORK PROGRAMME AND TRAINING:



- Conduct a literature review and critically analyse the state of the art in Edge AI, distributed intelligence, edge computing, federated learning, and smart charging, with a particular focus on applications to energy systems and distributed energy resources.
- Study the computational and functional requirements for executing algorithms on edge devices, taking into account limitations in processing power, memory, energy consumption, latency, connectivity, and robustness.
- Develop and test electric vehicle charging session forecasting algorithms, including the prediction of start times, duration, required energy, and flexibility availability.
- Explore the use of machine learning models and edge-optimized small language models, assessing their applicability in environments with limited computational resources.
- Experimentally validate the developed solutions in representative scenarios, namely smart electric vehicle charging and flexibility management of distributed resources.
- Critically analyse the results obtained and contribute to the preparation of technical documentation, reports, and scientific publications related to the work carried out.

4. REQUIRED PROFILE:

Admission requirements:

Bachelor's or Master's degree in Electrical and Computer Engineering, Informatics, Computer Science, Applied Mathematics, 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:

- Knowledge of electrical power systems, with a particular interest in distribution networks, distributed energy resources, or electric mobility.
- Experience in software and API development, preferably using Python or equivalent programming languages.
- Knowledge of artificial intelligence, machine learning, or federated learning.
- Fluency in English (written and spoken).

Minimum requirements:

- Advanced knowledge of a programming language (e.g., Python, C++).
- Basic knowledge of data analysis.

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: Ricardo Jorge Bessa

Full member: Filipe Joel Soares

Full member: Alexandre Lucas

Substitute member: Manuel Matos

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 2026-10-08 to 2026-11-08

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

