

## CALL FOR GRANT APPLICATIONS (AE2024-0400)

INESC TEC is now accepting grant applications to award 1 Post Doctoral Research Grant (BIPD) on the scope AI\_EFFECT with reference 101172952 funded by the European Commission under the Horizon Europe program for the period 2021-2027.

### 1. GRANT DESCRIPTION

**Type of grant:** Post Doctoral Research Grant (BIPD)

**General scientific area:** COMPUTER SCIENCE

**Scientific subarea:**

**Area of Work:** Artificial Intelligence

**Grant duration:** 12 months, starting on 2024-11-15, with the possibility of being renewed for a maximum term of three years.

**Scientific advisor:** Ricardo Jorge Bessa

**Workplace:** INESC TEC, Porto, Portugal

**Maintenance stipend:** € 1801,00, [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 Horizon Europe AI-EFFECT project will establish a European Testing Experimentation Facility (TEF) for developing, testing, and validating AI applications in the energy sector. It will be distributed across nodes, virtually connecting existing European facilities. The solution includes a digital platform leveraging European building blocks for interoperability, flexibility, and scalability. The participation of INESC TEC involves one node (and different use cases) for the operation of local energy communities and the operation of microgrids. The framework involves utilities proposing challenges, vendors developing algorithms, and researchers contributing solutions.

The main objectives of the Fellowship are:

- 1) Define the criteria for each use case evaluation, baselines, and benchmarks.
- 2) Develop and apply AI certification procedures, including interpretability and verification.

### 3. BRIEF PRESENTATION OF THE WORK PROGRAMME AND TRAINING:

- 1) Development of workflows and methods enabling AI testing to support the safe operation of local energy communities and microgrids.
- 2) Develop methodologies for assessing the robustness and safety of AI-based decision and control systems, considering risk assessment aligned with the EU AI Act.
- 3) Validate the developed methodologies on real data and with real consumers/prosumers.
- 4) Dissemination of the work in international journals and/or conferences

#### 4. REQUIRED PROFILE:

##### Admission requirements:

The PhD degree must have been obtained within the three years prior to the date of submission of the application and the research work leading to the award must have been carried out at a host entity other than INESC TEC.

##### Preference factors:

- Past experience (or academic background) with machine learning; - Academic background in energy systems;
- Programming knowledge in Python

##### Minimum requirements:

Previous academic background in or electrical engineering or applied mathematics or computer science or informatics or similar

#### 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 (70%) and EI (30%).

##### 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: Justino Miguel Rodrigues

Full member: Carla Silva Gonçalves

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. 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.
5. 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 2024-09-26 to 2024-10-25

**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](http://www.inesctec.pt/bolsas)



Funded by the  
European Union