

CALL FOR GRANT APPLICATIONS (AE2024-0530)

INESC TEC is now accepting grant applications to award 1 Post Doctoral Research Grant (BIPD) within the scope of the INESC TEC LA funded by National Funds through FCT - Portuguese Foundation for Science and Technology, I.P., project reference LA/P/0063/2020.

1. GRANT DESCRIPTION

Type of grant: Post Doctoral Research Grant (BIPD)

General scientific area: COMPUTER SCIENCE, ENGINEERING

Scientific subarea: Electrical engineering, Computer engineering

Area of Work: Artificial intelligence and remote observation for IoT and Robotics

Grant duration: 11 months 11 days, starting on 2025-01-21.

Scientific advisor: Filipe Neves Santos

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:

TRIBE LAB is a laboratory dedicated to research and development (R&D) in robotics and the Internet of Things (IoT), with a focus on precision and intelligent agriculture and forestry. For this position, the main objectives are:

- achieve new projects integrating Artificial Intelligence, remote observation and robotics and IoT;
- coordinate the publication of results

3. BRIEF PRESENTATION OF THE WORK PROGRAMME AND TRAINING:

The TRIBE LAB Laboratory - Robotics and IoT for precision agriculture and forestry has been working on robotic and IoT technology that needs to be integrated with a decision support system, to increase its autonomy and impact. In this context, the aim is to explore new projects, publications and concepts integrating Artificial Intelligence and data provided by satellites, drones, robots and IoT to obtain prescription, productivity and action maps, which can support the farmer in his decision-making, as well how to automate the connection between the decision support system and robots.



4. REQUIRED PROFILE:

Admission requirements:

PhD in agricultural production chains, computer sciences, engineering and similar.

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:

- Proven experience with Pandas, Seaborn, Matplotlib and Numpy
- Carrying out work with the agriculture and forestry sector

Minimum requirements:

Experience with geographic information systems

More than 10 scientific publications in indexed journals

Proven experience in using machine learning techniques using Python

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, 45%), Scientific Publications (PC, 5%), Experience (EX, 45%) and Motivation Letter (CM, 5%).

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: Filipe Neves Santos

Full member: Luís Carlos Santos Full member: André Silva Aguiar

Substitute member:

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;
- Curriculum Vitae (must include the list of previous fellowships, their type, beginning and end dates, funding entities and host institutions);
- 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 2024-12-19 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



