

CALL FOR GRANT APPLICATIONS

(AE2026-0210)

INESC TEC is now accepting grant applications to award 1 Research Grant (BI) within the scope of the on the scope AGROBOOST with reference 101182954 funded by the European Commission under the Horizon Europe program for the period 2021-2027.

1. GRANT DESCRIPTION

Type of grant: Research Grant (BI)

General scientific area: ENGINEERING

Scientific subarea: Electronic engineering

Area of Work: Robotics for Agriculture and Forestry

Grant duration: 6 months, starting on 2026-08-17, 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 four years, in the cases of students enrolled in a PhD.

Scientific advisor: Filipe Neves Santos

Workplace: INESC TEC, Porto, Portugal

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 work to be developed will have the following main objectives:

Improve and validate RADAR modules for detecting fruits and hidden structural elements in plants;

Study optimized solutions with multiple RADAR modules, suitable for integration into manipulators and mobile robots;

Explore the use of RADAR and EMI technologies to support weeding, pruning, and selective harvesting operations;

Integrate sensors and components compatible with cost, energy consumption, robustness, and field operation requirements;

Test and validate the performance of the developed solutions in a real agricultural operation context;



Contribute to the evolution of WaterPercept technology and its application in new use cases in precision agriculture.

3. BRIEF PRESENTATION OF THE WORK PROGRAMME AND TRAINING:

The work plan includes an analysis of the state of the art in RADAR and EMI technologies applied to the perception of plants, fruits, and hidden structures in an agricultural context. The study, improvement, and validation of RADAR modules for selective weeding, pruning, and selective harvesting applications will be carried out, considering different sensor configurations and data acquisition strategies.

The work will also include the evaluation of multi-RADAR solutions, with a view to their integration into robotic manipulators and mobile agricultural platforms, namely the Modular-E/X. Acquisition, processing, and signal analysis methods will be developed and tested, aiming to improve the detection of partially or totally hidden fruits and plant structures.

Whenever applicable, laboratory tests and trials in a real operating environment will be conducted, allowing for the evaluation of the performance, robustness, and applicability of the developed solutions in real agricultural conditions.

4. REQUIRED PROFILE:

Admission requirements:

Master's degree in Electrical and Computer Engineering, currently enrolled in a doctoral program.
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 in PCB design and development;
- Experience with signal conditioning systems;
- Experience with RADAR, EMI sensors, or other advanced perception systems;
- Experience in IoT systems for agriculture or environmental monitoring;
- Experience in integrating sensors into robotic platforms;
- Experience in validating systems in a real operating environment;
- Knowledge of mobile robotics, manipulators, or precision agriculture.

Minimum requirements:

- Master's degree in Electrical and Computer Engineering;
- Active enrollment in a doctoral program;
- Experience using RADAR and/or EMI sensors;
- Knowledge of microcontroller programming;
- Knowledge of signal acquisition, processing, and 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, 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: André Silva Aguiar

Full member: André Rodrigues Baltazar

Substitute member: Luís Carlos Santos

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 2026-07-16 to 2026-07-29

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



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