

CALL FOR GRANT APPLICATIONS

(AE2026-0253)

INESC TEC is now accepting grant applications to award 1 Research Grant (BI) project MOBOT2, with reference 24264 (NORTE2030-FEDER-02961400) Co-funded by ERDF - European Regional Development Fund through the NORTE 2030 Regional Program under the scope of Portugal 2030.

1. GRANT DESCRIPTION

Type of grant: Research Grant (BI)

General scientific area: COMPUTER SCIENCE

Scientific subarea: Informatics

Area of Work: Informatics

Grant duration: 4 months, starting on 2026-09-14, 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: João Marco

Workplace: Braga

Maintenance stipend: € 1090.98, [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 falls within the scope of the MOBOT 2.0 project, specifically the development of cybersecurity mechanisms. The central objectives are to strengthen the security posture of 5G-based industrial systems; to continuously anticipate and mitigate vulnerabilities; and to experimentally demonstrate the effectiveness of the developed mechanisms.

3. BRIEF PRESENTATION OF THE WORK PROGRAMME AND TRAINING:

This work aims to develop and validate cybersecurity mechanisms for industrial production architectures that communicate over 5G infrastructure, covering continuous anomaly monitoring and automated vulnerability management. The approach combines applied research and experimental development, ranging from requirements gathering to the validation of prototypes in laboratory and shop-floor environments, including penetration testing and fault injection to assess the robustness of the security mechanisms. The results include integrated cybersecurity components capable of detecting intrusions and anomalous traffic, as well as technical reports with performance, latency, and incident detection metrics."

Task list:

- Gather cybersecurity requirements for industrial 5G communications, considering relevant attack scenarios.



- Develop mechanisms for continuous monitoring and real-time anomaly detection (including a vulnerability component supported by OSINT and public databases), and select and adapt reference security technologies (industrial firewalls, IDS/IPS, VPNs, Zero Trust).
- Implement automated processes to identify and mitigate vulnerabilities in software platforms, including updates, patches, and secure configurations.
- Experimentally validate the prototypes in a laboratory environment (penetration testing and fault injection), producing technical reports with performance, latency, and incident detection metrics.

4. REQUIRED PROFILE:

Admission requirements:

Bachelor's degree in Computer Engineering, Computer Science, or a related field.

The awarding of the fellowship is dependent on the applicants' enrolment in study cycle or non-award courses of Higher Education Institutions.

Preference factors:

- Practical experience with intrusion detection systems (IDS/IPS) and firewalls.
- Knowledge of OSINT mechanisms and public vulnerability databases (e.g., CVE, NVD).
- Familiarity with the Robot Operating System (ROS).
- Familiarity with penetration testing.
- Knowledge of 5G networks and their respective communication security mechanisms.
- Familiarity with industrial communication protocols.

Minimum requirements:

- Achievement of a grade equal to or higher than 15 (out of 20) in a course unit in network or systems security, or with a demonstrable component in these topics.
- Knowledge of communication network protocols and architectures, including 5G fundamentals.
- Knowledge of vulnerability detection and security monitoring mechanisms.
- Programming knowledge (Python and/or C/C++) applied to cybersecurity tools.
- Proficiency in written and spoken English.

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: João Marco

Full member: Ana Nunes Alonso

Full member: Fábio André Coelho

Substitute member: João Tiago Paulo

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 2026-08-13 to 2026-08-26

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



**Cofinanciado pela
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INESC TEC

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Associação privada sem fins lucrativos declarada de utilidade pública

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