

CALL FOR GRANT APPLICATIONS (AE2025-0480)

INESC TEC is now accepting grant applications to award 1 Research Grant (BI) within the scope of the within the scope of the project AIOTacitR with reference 15051 (COMPETE2030-FEDER-00870300) co-funded by the ERDF - European Regional Development Fund through Innovation and Digital Transition Program - COMPETE 2030 under the scope of Portugal 2030 and by National Funds through the FCT - Fundacao para a Ciencia e a Tecnologia, I.P. (Portuguese Foundation for Science and Technology).

1. GRANT DESCRIPTION

Type of grant: Research Grant (BI)

General scientific area: ENGINEERING

Scientific subarea: Industrial engineering

Area of Work: Last mile delivery problem

Grant duration: 12 months, starting on 2025-11-17 with the possibility of being renewed for a maximum term of two years, in the cases of students enrolled in a master's degree.

Scientific advisor: António Galvão Ramos

Workplace: INESC TEC, Porto, Portugal

Maintenance stipend: € 1040.98, [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:

The main objective of the work is to develop a sustainable artificial intelligence based system to solve last mile delivery problem, while considering different factors.

3. BRIEF PRESENTATION OF THE WORK PROGRAMME AND TRAINING:

The work plan for the AI-Driven Optimization for Sustainable Last Mile Delivery (AIO-TacitR) project is structured around advancing solutions to the Vehicle Routing Problem (VRP) by leveraging Artificial Intelligence, Machine Learning, and Generative AI to improve sustainability and real-time adaptability in urban logistics. The project begins with foundational activities such as literature review, data collection, and preprocessing to build a robust knowledge base. It then advances to developing and refining AI models that integrate zone characteristics, traffic conditions, weather, and driver feedback. These models aim not only to reduce delivery times and operational costs but also to minimize environmental impacts, aligning with sustainability goals. The plan emphasizes iterative development, incorporating feedback loops from testing and environmental analysis to continuously improve performance.

Over the timeline, the project follows a phased approach: Year 1 focuses on groundwork—research, data preparation, and initial AI model prototypes. Year 2 emphasizes refinement, prototype testing, and detailed environmental impact assessments, while Year 3 prioritizes integration of AI systems into partner logistics operations, user experience design, validation, and large-scale dissemination of results. Cross-cutting activities

like project management, stakeholder engagement, and sustainability reporting ensure the alignment of research outputs with industry needs and societal goals. The structured plan ultimately seeks to bridge the gap between theoretical optimization models and real-world delivery challenges, setting a foundation for greener, more efficient, and socially responsible logistics solutions.

4. REQUIRED PROFILE:

Admission requirements:

Education in Industrial Engineering, Informatics Engineering, Mechanical Engineering, Computer Science, Civil Engineering or related area.

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 data science and engineering
- Experience in developing machine learning models and data analysis
- Experience in working with big data

Minimum requirements:

Experience in the following skill(s):

- Programming in Python
 - Ability to work in group, high autonomy, and organization
 - Experience in working with datasets
 - Basic knowledge of ETL process
- Fluent in Portuguese and 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, 40%), Scientific Publications (PC, 25%), Experience (EX, 10%) and Motivation Letter (CM, 25%).

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: António Galvão Ramos
- Full member: Manuel Pereira Lopes
- Full member: Carlos Ferreira
- Substitute member: António Henrique Almeida

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 2025-10-16 to 2025-10-29

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

