

## CALL FOR GRANT APPLICATIONS (AE2023-0523)

INESC TEC is now accepting grant applications to award 1 Research Initiation Grant (BII) within the scope of the Co-financed by Component 5 - Capitalization and Business Innovation of core funding for Technology and Innovation Centres (CTI), integrated in the Resilience Dimension of the Recovery and Resilience Plan within the scope of the Recovery and Resilience Mechanism (MRR) of the European Union (EU), framed in the Next Generation EU, for the period 2021 - 2026.

### 1. GRANT DESCRIPTION

**Type of grant:** Research Initiation Grant (BII)

**General scientific area:** ENGINEERING

**Scientific subarea:** Industrial engineering

**Area of Work:** Business systems engineering and eco-efficient production planning

**Grant duration:** 6 months, starting on 2024-02-07, with the possibility of being renewed for a maximum term of one year.

**Scientific advisor:** Romão Filipe Santos

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

**Maintenance stipend:** € 541,12, [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:

- Expand knowledge of the state of the art in the specific scientific area of the scholarship;
- Identify and select the appropriate methods for production planning and scheduling problems with the introduction of sustainability factors;
- Develop research skills through the application of selected methods;
- Exercise critical thinking when evaluating the research process and the results obtained.

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

- Comprehensive review of the state of the art and identification of the main research gaps;
- Characterisation of the problem to be addressed;
- Design and development of optimisation strategies for eco-efficient production planning and scheduling;
- Integration of optimisation models with simulation to evaluate plans in a stochastic environment;
- Evaluation of the approach developed and analysis of results (KPIs);

#### 4. REQUIRED PROFILE:

##### Admission requirements:

Master's student in Industrial Engineering and Management.

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 operational research and operations management;
- experience in simulation, optimisation and object-oriented programming;
- strong capacity for teamwork;
- knowledge of English and Portuguese.

##### Minimum requirements:

Master's student in Industrial Engineering and Management.

#### 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%).

##### The Selection Jury is composed of the following members:

President of the Jury: António Henrique Almeida

Full member: Jorge Pinho de Sousa

Full member: José Soeiro Ferreira

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;
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 not having benefited from any other research fellowship (Article 5, no. 5)
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 2023-12-21 to 2024-01-05

**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)

