

## CALL FOR GRANT APPLICATIONS (AE2020-0130)

INESC TEC is now accepting grant applications to award 1 Research Grant (BI) within the scope of the LUCAS funded by Fundo Europeu de Desenvolvimento Regional (FEDER) through the Operational Programme for Competitiveness and Internationalisation - COMPETE 2020 Programme, and by National Funds through the FCT - Portuguese Foundation for Science and Technology, I.P., project (reference POCI-01-0145-FEDER-030263 (PTDC/EMD-EMD/30263/2017)

### 1. GRANT DESCRIPTION

**Type of grant:** Research Grant (BI)

**General scientific area:** ENGINEERING

**Scientific subarea:** Electrical engineering

**Grant duration:** 6 months, starting on 2020-10-12, with the possibility of being renewed until the end of the project.

**Scientific advisor:** Hélder Filipe Oliveira

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

**Maintenance stipend:** € 1064,00, 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.

Costs attributable to INESC TEC may include registration, enrolment or tuition fee stipend, either directly or through reimbursement, during the grant duration.

The grant holder will benefit from health insurance, supported by INESC TEC.

### 2. OBJECTIVES:

The grantee's objectives are related to participation in the various stages of the project, such as: specification and participation in the various phases of development and construction of prototypes. The activities associated with LuCaS are as follows:

- Preliminary studies and specifications
- Data acquisition
- Radiomics: Tumor genotype prediction
- Non-invasive methodology for the characterization of pulmonary nodules

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

CAD systems for the automatic detection of pulmonary nodules on CT are one of the most studied applications. Although these systems improve the performance of radiologists, they usually only allow visual description of the tumors, limiting themselves to a subjective and qualitative characterization. The objective of LuCaS is to create a radiomics based approach to describe and create predictive models relating image phenotypes to genomic signatures, as well as a non-invasive methodology.

#### 4. REQUIRED PROFILE:

##### Admission requirements:

The award of the scholarship assumes that the candidate is a student in a PhD study cycle

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 bio-related projects

##### Minimum requirements:

Knowledge in image processing and machine learning

#### 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, 10%), Experience (EX, 20%) and Motivation Letter (CM, 20%).

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: Helder Filipe Oliveira

Full member: Tânia Pereira

Full member: António Cunha

Substitute member: Ana Filipa Sequeira

**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 dully recognised in Portugal;
  - Documents proving the awarding of academic degrees and diplomas, or the according recognition - in cases of academic degrees or diplomas granted by a foreign higher education institution - can be dismissed in the application process, and replaced by the applicant's declaration of honour, with the verification of said condition taking place during the grant's hiring stage.
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 2020-08-14 to 2020-09-21

**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)

