

## CALL FOR GRANT APPLICATIONS (AE2020-0124)

INESC TEC is now accepting grant applications to award 1 Research Grant (BI) with the reference ATLANTIS funded by CE, project (reference 871571)

### 1. GRANT DESCRIPTION

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

**General scientific area:** ENGINEERING

**Scientific subarea:** Simulation engineering

**Grant duration:** 6 months, starting on 2020-09-23, 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:** Andry Maykol Pinto

**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:

- prepare a state of the art review on the use of computer learning techniques in the field of marine robotics;
- study new 3D designs for mobile robotic systems (underwater and surface), integrating functional and energetic perspectives, with inspiration in biology;
- simulations of bodies and hydrodynamic forces in robotic operations of multiple status;
- support for the development, manufacturing process and integration of electromechanical systems for inspection and maintenance operations;
- write the stock exchange activity report.

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

Extend knowledge of the state of the art in the specific scientific area of scholarship Identify and select the appropriate methods for the study Develop research capacity through the application of selected methods Exercise a critical spirit in the evaluation of the research process and of the results obtained

#### 4. REQUIRED PROFILE:

##### Admission requirements:

Master's Degree in Electrical Engineering or 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:

- basic knowledge of programming; - knowledge of aerodynamics or hydrodynamics; - basic knowledge of mechatronics.

##### Minimum requirements:

- master's degree above 14;
- knowledge of 3D modeling and design;
- be enrolled in a doctoral program, with a thesis in the field of mobile robotics (in terms of mechanics or electrotechnics).

#### 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: Aníbal Matos

Full member: Andry Maykol Pinto

Full member: Nuno Miguel Abreu

Substitute member: Bruno Miguel Ferreira

**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 fully 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 2020-08-17 to 2020-09-04

**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)