

CALL FOR GRANT APPLICATIONS (AE2023-0081)

INESC TEC is now accepting grant applications to award 1 Research Grant (BI) within the scope of the Plurianual_LA funded by National Funds through FCT - Portuguese Foundation for Science and Technology, I.P., project (reference LA/P/0063/2020)

1. GRANT DESCRIPTION

Type of grant: Research Grant (BI)

General scientific area: COMPUTER SCIENCE,ENGINEERING,TECHNOLOGY

Scientific subarea: Programming,Informatics

Grant duration: 6 months, starting on 2023-04-03with 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: Duarte Filipe Dias

Workplace: INESC TEC, Porto, Portugal

Maintenance stipend: € 930,98, according to the table of monthly maintenance stipend for FCT grants (https://www.fct.pt/wp-content/uploads/2023/02/Tabela-de-Valores-SMM_2023.pdf), 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 candidate will draw on innovative technologies being developed at C-BER to increase their knowledge and evolve the work that has been done in the area of new techniques for feature extraction from various biomedical signals, as well as in the design, implementation and optimization of signal processing pipelines oriented to biomedical engineering problems. The candidate will also follow the development of web&mobile applications for integration of the work done as well as demonstration and use in clinical practice.

3. BRIEF PRESENTATION OF THE WORK PROGRAMME AND TRAINING:

The selected candidate will integrate the Biomedical Engineering research team at C-BER in a transversal way supporting in several research activities related to the development of new biomedical signal processing models as well as feature extraction and classification according to the scope of study. The candidate will work on several physiological signals such as electrocardiogram, plethysmography, body temperature, inertial data, among others, aiming to develop physiological metrics. As part of a European project, this is an attractive opportunity for any student in the field of biomedical engineering who wishes to deepen their knowledge and join a research and development team. The writing of scientific articles and participation in scientific conferences or meetings abroad may also be part of the activities carried out by the candidate for scientific dissemination of the results obtained.

4. REQUIRED PROFILE:

Admission requirements:

Bachelor in Biomedical Engineering, Electrical Engineering and Computers or other similar areas.

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

Preference factors:

Good knowledge of biomedical signal processing techniques for feature extraction. Previous activity in the analysis of electrocardiogram, electromyogram and/or inertial data signals.

Minimum requirements:

The candidate should have good knowledge in pre-processing, analysis and processing of biomedical signals, development of machine learning algorithms (kNN, SVM, PCA, among others) and should already have prior knowledge/experience in the analysis of physiological signals.

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, 35%), Scientific Publications (PC, 25%), 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 (40%) and EI (60%).

The Selection Jury is composed of the following members:

President of the Jury: João Paulo Cunha

Full member: Susana Cristina Rodrigues

Full member: Miguel Velhote Correia

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 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. The submission of the certificate is mandatory when signing the contract.
 - Academic degrees or diplomas awarded by a foreign higher education institution require an authentication by a Portuguese higher education institution, and the corresponding registration on the DGES platform, in conformity with Decree-Law no. 66/2018, of August 16, and Ordinance no. 33/2019, of January 25. More information available on the website <https://www.dges.gov.pt/pt/pagina/reconhecimento?plid=374>
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 2023-03-01 to 2023-03-14

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



Governo da República Portuguesa

FCT

Fundação para a Ciência e a Tecnologia
MINISTÉRIO DA EDUCAÇÃO E CIÊNCIA