

**CALL FOR APPLICATIONS**  
**MASTER RESEARCH GRANT (M/F)**

This call concerns a research grants – BM – for the R&D Project STRIDE – “Smart Cyber-physical, Mathematical, Computation and Power Engineering Research for Disruptive Innovation in Production, Mobility, Health, and Ocean Systems and Technologies”, ref. NORTE-01-0145-FEDER-000033, supported by North Portugal Regional Operational Programme (NORTE 2020), under the Portugal 2020 Partnership Agreement, through the European Regional Development Fund (ERDF).

The Research Center for Systems and Technologies (SYSTEC) hosted at FEUP and ISR – Association sets forth the key goals of:

- i) Pushing forward the state-of-the-art in the areas of systems, control, optimization, estimation, robotics, networked and vehicle systems, and power electronics for transport & energy driven by high impact academic, societal, industrial, and entrepreneurial challenges; and
- ii) Promoting the valorization and transfer of the generated knowledge and products.

The STRIDE project proposes to demonstrate that the R&D of excellence in Science and Technology can have a rapid and disruptive impact in concrete application domains, notably, in those in which the relevance for the NORTE Region of Portugal are considered of top priority domains specified by its RIS3. The S&T areas with particular relevance to STRIDE are Networked Robotic Vehicle Systems, Advanced Production Systems, Mobility and Environment as well as the underlying theoretical scientific areas of Systems, Control and Optimization, and their applications in fields such as Agriculture, Health, Robotics, among others.

The awarding of each one of the research grants will be subject to the following conditions:

**Scientific Area:**

Control, Guidance and Navigation related areas from engineering.

**Admission Requirements:**

Master degree in either Aerospace Engineering, or Electrical Engineering, or Mechanical Engineering, or related area.

Candidates with some experience in research, with a good mastery of the English language, as well as solid interpersonal skills and team work abilities are preferred.

**R&D work specification:**

Key Responsibilities:

- To plan and carry out research in the assigned R&D project goals.
- To take long-term commitment within the strategy of the STRIDE project, working closely with senior researchers and other colleagues in order to advance the state-of-the-art in the pertinent areas.
- To generate and display R&D results which contribute to excellence at the worldwide level, and maintain accurate and complete records of all findings.
- To contribute to the internationalization of the research team.
- To promote the impact of the R&D results in societal challenges (including entrepreneurial leadership), particularly those pertinent to S&T transfer with emphasis for the SYSTEC strategic partnerships.

- To publish and be visible at the pertinent top international venues with emphasis in journals, conferences and selected workshops.
- To write progress reports and prepare results for publication and dissemination via presentations and the internet.
- To collaborate with everyone working on the projects, attend group meetings, project meetings, relevant workshops and conferences as necessary.
- To co-supervise undergraduate students involved in projects or related activities. To provide assistance and guidance by directing small research teams of students.
- To keep abreast of the state-of-the-art developments in pertinent fields.
- To perform occasional demonstrations of the lab's work to potential students and/or industrial and or academic collaborators.
- Any other duties commensurate with the grade of the post as directed by senior researchers.

To observe and comply with all policies and regulations, including the key policies and procedures on Confidentiality, Conflict of Interest, Data Protection, and other Regulations.

**Applicable Legislation and Regulation:**

Law N.º. 40/2004 of August 18, modified by the Law-Decree n.º 202/2012, of August 27, and modified by the Law-Decree n.º 233/2012, of October 29 and by the Law n.º 12/2013 of January 29 and by the Law-Decree n.º 89/2013 of July 09 (Statute of the Scientific Research Grantee); Current “Regulamento de Bolsas de Investigação da FCT - Fundação para a Ciência e a Tecnologia”, (FCT-Foundation for Science and Technology research grants regulation), ([www.fct.pt/apoios/bolsas/docs/RegulamentoBolsasFCT2015.pdf](http://www.fct.pt/apoios/bolsas/docs/RegulamentoBolsasFCT2015.pdf)), and “Regulamento de Bolsas da Universidade do Porto” (Porto University grants regulation).

**Work Facilities:**

The R&D activities will take place at SYSTEC facilities in the Electrical and Computer Engineering Department of FEUP - Faculdade de Engenharia da Universidade do Porto, under the scientific supervision of Professor António Pedro Aguiar.

**Duration and Contractual Conditions:**

The R&D activities will be executed in a regimen of exclusivity and will start not earlier than November 2017, for the period of six months renewable but not exceeding the project duration.

**Value of the monthly maintenance grant:**

The base monthly net income is of € 980.00, as stipulated by FCT for BI grants with master degree (BI-M) in Portugal ([www.fct.pt/apoios/bolsas/valores](http://www.fct.pt/apoios/bolsas/valores)). The payment will be executed via bank transfer.

**Application Grading Method:**

Curricular Analysis

The applications of the candidates will be ranked according to their suitability to fulfill the key responsibilities underlying the R&D work specification:

- (i) Curricular assessment of the candidate which includes the main achievements, the significance and quality of their scientific and technical production, as well as their ability to intervene efficiently and in an innovative manner to address challenges. Grading scale: 0-5
- (ii) Suitability of the candidate profile to the position requirements. Grading scale: 0-5
- (iii) Adequacy of the candidate to the R&D team dynamics. Grading scale: 0-5.

The weights assigned to these criteria are, respectively, 60%, 20% e 20%.

Interview

After the analysis of the submitted documentation, the Candidates Grading Committee might request an interview with the two best candidates in order to clarify issues deemed relevant for a fair decision. In this

case, the curricular analysis will have the weight of 70% and the interview will have the weight of 30%.

Moreover, the Candidates Grading Committee reserves to itself the right to not hire anyone of candidates in case no candidate fulfils the stated requirements.

**Composition of the Candidates Grading Committee:**

President: Fernando Manuel Ferreira Lobo Pereira  
Member: António Pedro Rodrigues Aguiar  
Member: João Tasso de Figueiredo Borges de Sousa  
Substitute member: Andrea Alessandretti

**Announcement of the Results:**

The candidates will be notified by registered letter about the decisions of the selection committee. Therefore the full address indication is mandatory on the application process.

**Period for Submission of the Applications:**

Applications have to be submitted during the period of **06/11/2017 until 17/11/2017**.

The applications have to be submitted by *email* to [recursoshumanos@fe.up.pt](mailto:recursoshumanos@fe.up.pt), [pedro.aguiar@fe.up.pt](mailto:pedro.aguiar@fe.up.pt) and to [sas.lst@fe.up.pt](mailto:sas.lst@fe.up.pt), indicating **FEUP - STRIDE – BI-M** in the subject, with following elements: Letter with the expression of interest and motivation, Curriculum Vitæ (including address, e-mail and telephone), at least two reference contacts that can provide reference letters, certification of qualifications, skills and competences, and, also, other documents that the candidate may deem a relevant too her/his application.