

1 Research Grant Announcement (M/F)

Call open for applications for a research grant within the framework of project FERROVIA 4.0, co-financed by the European Regional Development Fund (ERDF), through the Operational Programme for Competitiveness and Internationalization (COMPETE 2020), under the following conditions:

Scientific Area: Computer Vision / Image Processing & Analysis

Admission requirements: Candidates who cumulatively meet the following two requirements may apply for this grant:

Requirement 1:

- Be a student enrolled in a doctoral program in the area of Informatics Engineering, Computer Science, Electrical Engineering, Mechanical Engineering or similar, a requirement to be duly proven at the time of signing the contract.

or

- Holder of an academic degree enrolled in a non-academic degree course integrated in the educational project of a higher education institution, developed in association or cooperation with one or more R&D units, a requirement to be duly proven at the time of signing the contract.

Note: In the case of masters who are enrolled in non-academic degree courses, the scholarship can only be awarded to those who do not exceed, with this scholarship contract, including possible renewals, an accumulated period of two years in that typology of the scholarship, followed or interpolated.

and

Requirement 2:

- Hold a master's degree in Informatics Engineering, Computer Science, Electrical Engineering, Mechanical Engineering or similar

If the degree has been awarded by a foreign higher education institution, it must comply with the provisions of the Decree-Law no. 66/2018, of august 16th, and any formalities established there must be fulfilled until the time of signing the contract.

Activity Outline: The contract is for R&D activities aimed at developing monitoring systems for the identification of critical events for infrastructure safety (track and catenary), based on cameras mounted on railway vehicles and computer vision technologies, involving the research and design of solutions, the validation of solutions through the construction and testing of prototypes and the

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integration in management and warning platform of critical safety events, as well as the preparation and publication of articles in scientific journals and in national and international conferences, involving participation in the following project activities: 3 and 4 of PPS3 and 2 of PPS5.

Legislation and regulations: Law Nº. 40/2004, of 18th August, in its current wording (Statutes of Scientific Research Fellow) and Regulation of Research Grants of Fundação para a Ciência e a Tecnologia, in force (<https://www.fct.pt/apoios/bolsas/regulamento.phtml.pt>) and Regulation of Research Grants of University of Porto.

Work place: The work will be developed at the Department of Mechanical Engineering of the Faculty of Engineering of the University of Porto (FEUP), under the scientific supervision of Professor João Manuel R.S. Tavares.

Grant duration: Initial duration of **12 months**, with the predicted starting date in **October 2021**, on an exclusive basis eventually renewable but never exceeding the project duration.

As determined in article 6 of the Research Grants Regulation of the Foundation for Science and Technology, I.P., in case of being selected enrolled in a non-academic degree course integrated in the educational project of a higher education institution, developed in association or cooperation with one or more R&D units, this grant will not be renewed.

Stipend: The grant stipend amounts to 1.104,64€ according to the table of values of the grants awarded directly by FCT, I.P. in the Country (<https://www.fct.pt/apoios/bolsas/valores>).

The payment will be made by bank transfer.

Selection procedure:

The curriculum of the candidates (60%) will be evaluated based on the merit of the candidate and will focus the following factors:

- a) Academic training: Master in Informatics Engineering, Computer Science, Electrical Engineering, Mechanical Engineering or similar - 10 points; Others Masters – 2 points
- b) Publications in the area of the research project- 5 points, Publications in other areas – 2 points
- c) Research Experience in the project area – 5 points; in related areas – 3 points; Other areas – 1 point

The curriculum of each candidate will be evaluated in a 1-20 points scale. Candidates with less than 14/20 points in the curricular evaluation will not be invited for the interview (40%).

In the interview topics related with the work plan, experience and the candidate's CV will be discussed with the invited candidates.

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Selection Jury:

President: João Manuel Ribeiro da Silva Tavares, Full Professor FEUP

Effective member: Rui Artur Bártolo Caçada, Full Professor FEUP

Effective member: Joaquim Gabriel Magalhães Mendes, Associate Professor FEUP

Supplementary member: Abílio Manuel Pinho de Jesus, Associate Professor FEUP

Supplementary member: Paulo José Lopes Machado Portugal, Associate Professor FEUP

Advertisement of final decision: The results of the evaluation will be released to the candidates by email to the email address indicated in the application process.

Deadline for applications and form of presentation of the applications:

The call is open from **09-09-2021 to 22-09-2021** (until 23h59m, GMT time).

Applications must be formalized by email to tavares@fe.up.pt and to recursoshumanos@fe.up.pt, clearly stating the reference **FEUP-FERROVIA 4.0-PPS3-Mecânica** and including the following pdf documents: Motivation letter, Copy of certificates evidencing academic degree (referring the classification of each separated or integrated degree), detailed Curriculum Vitae; Declaration on honor that the candidate fulfills the requirement contained in article 6 of the Regulation for Research Grants of the Foundation for Science and Technology, I.P. (model below. For student enrolled in a non-academic degree course integrated in the educational project of a higher education institution, developed in association or cooperation with one or more R&D units) and other documents considered relevant by the applicant.

In order to assure that all documents can be read, the preferred saving format is the Portable Document Format (.pdf).

Declaration on honour

I, (identification of the scholarship holder), holder of the Citizen Card / Visa / Residence Permit no. valid until _____, declare under honour, to be in the conditions of no. 5 of article 6º of the Research Grants from FCT, IP - Regulation No. 950/2019, of 16 December.

Porto, __/__/__

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Signature

(scholarship holder)

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