

3 Research Grants Announcement (M/F)

Call open for applications for 3 research grant within the framework of project Multi-Scale Finite Element Modeling, financed by Faculty of Engineering of the University of Porto, under the following conditions:

Scientific Area: Mechanical Engineering

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

Requirement 1:

- To be a student enrolled in a master's degree or integrated master or integrated master's program who has already completed the 180 credits corresponding to the first six curricular semesters in the area of Mechanical Engineering, the requirement is to be 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, requirement to be proven at the time of signing the contract.

And

Requirement 2:

Hold a bachelor's degree in Engineering Sciences or a related field.

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 objective of these works will be to develop analytical and numerical models for analysing and optimising materials and structures. The main stages of the work plan:

- Literature review;
- Development of algorithms to characterise behaviour;
- Simulation of academic and real problems;
- Documentation of the work carried out;

Legislation and regulations: Law N.º. 40/2004, of 18th August, in its current wording (Statutes of Scientific Research Fellow) and 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 Francisco Pires.

Grant duration: Initial duration of **6 months**, with the predicted starting date in **May 2024**, on an exclusive basis, eventually renewable but never exceeding the project duration.

If the contracting procedures do not allow the scholarship to have a minimum duration of 3 consecutive months, in accordance with paragraph 2 of article 10 of the Research Regulation of Research Grants of University of Porto, the grant will not be awarded.

The eventual renewal of the scholarship will be carried out as determined in article 10 of the Regulation of Research Grants of University of Porto.

Stipend: The grant stipend amounts to 990,98€ according to the table of values of the Regulation of Research Grants of University of Porto. The payment will be made by bank transfer.

Selection procedure:

The curricular evaluation of the candidates will be evaluated based on the merit of the candidate and the following factors will be assessed:

- a) Academic training (bachelor in the area of Mechanical Engineering 5 points; Bachelor in a related area – 2 points)
- b) Research experience in the area of Computational Mechanics (until 1 year – up to 2 points; more than 1 year up to 5 points)
- c) knowledge in the Finite Element Method up to 5 points
- d) English language, to be verified through a motivation letter (up to 5 points)

The four best-ranked candidates in the curricular evaluation will be interviewed (up to 5 points). In the interview, topics related to the work plan, experience, motivation, and candidate's CV will be discussed).

The final scores results from the sum of the curricular evaluation and the interview.

If none of the candidates achieves a minimum final score of 10 points, the scholarship will not be awarded.

Selection Jury:

President: Full Professor at FEUP, Francisco Manuel Andrade Pires

Effective member: Researcher at INEGI, Igor André Rodrigues Lopes

Effective member: Researcher at INEGI, Miguel Vieira De Carvalho

Supplementary member: Full Professor at FEUP, Pedro Manuel Ponces Rodrigues de Castro Camanho

Supplementary member: Associate Professor at FEUP, Doutor Albertino José Castanho Arteiro

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 **19-04-2024 to 06-05-2024** (until 23h59m, GMT time).

Applications must be formalized by email to fpieres@fe.up.pt and to recursoshumanos@fe.up.pt, clearly stating the reference **FEUP-FEM** and including the following pdf documents: Motivation letter, detailed Curriculum Vitae, Copy of certificates evidencing academic degree, and other documents considered relevant by the applicant.