

03/08/2021

# O3F-2021-03

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## Where to apply

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Application Deadline: 17/09/2021 11:00 - Europe/London

## Contact Details

### Where to send your application.

#### COMPANY

University of Minho

#### E-MAIL

secretaria@algoritmi.uminho.pt

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## Hiring/Funding Organisation/Institute

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#### ORGANISATION/COMPANY

University of Minho

#### COUNTRY

Portugal

#### DEPARTMENT

Centro ALGORITMI

#### CITY

Guimarães

#### ORGANISATION TYPE

Higher Education Institute

#### STATE/PROVINCE

Guimarães

#### WEBSITE

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#### POSTAL CODE

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<http://algoritmi.uminho.pt/>

4800-058

**STREET**

Campus de Azurém

**ORGANISATION/COMPANY**

University of Minho

**RESEARCH FIELD**

Engineering › Other

**RESEARCHER PROFILE**

First Stage Researcher (R1)

**APPLICATION DEADLINE**

17/09/2021 11:00 - Europe/London

**LOCATION**

Portugal › Guimarães

**TYPE OF CONTRACT**

Temporary

**JOB STATUS**

Full-time

**HOURS PER WEEK**

35

**OFFER STARTING DATE**

15/10/2021

**EU RESEARCH FRAMEWORK  
PROGRAMME**

H2020

**REFERENCE NUMBER**

O3F-2021-03

## OFFER DESCRIPTION

Hiring/Funding Organisation/Institute

ORGANISATION/COMPANY: University of Minho

DEPARTMENT: ALGORITMI Research Center of the University of Minho

ORGANISATION TYPE: Higher Education Institute

E-MAIL: secretaria@algoritmi.uminho.pt

COUNTRY: Portugal

CITY: Guimarães

STREET: Universidade do Minho

ORGANISATION/COMPANY: University of Minho

RESEARCH FIELD: Engineering › Technologies and Information Systems

RESEARCHER PROFILE: First Stage Researcher (R1)

APPLICATION DEADLINE: 17/09/2021 23:59 - Europe/London

LOCATION: Portugal › Guimarães

JOB STATUS: Full-time

HOURS PER WEEK: 35

OFFER STARTING DATE: 15/10/2021

REFERENCE NUMBER: O3F/2021-03

#### OFFER DESCRIPTION

Announcement for the attribution of 1 Research Grant

A research grant is available under the research project O3F: O3F – An Optimization Framework to reduce Forest Fire, PCIF/GRF/0141/2019, funded by the Portuguese Agency for Science and Technology.

Scientific Area: Computer science, Systems Engineering, Optimization and Operational Research or similar areas.

Recipients and Admission Requirements: Candidates must be enrolled in a Master/Integrated Master (in the area or area related to that requested in the tender) or have a bachelor and be enrolled in a course that do not confer an academic degree, integrated in the educational project of a higher education institution, in the area or area related to that requested in the tender (eg: postgraduate studies, advanced studies, specialized training).

Eligibility of candidates: Candidates must meet the eligibility conditions provided for in article 9 of the FCT I.P Research Grant Regulation (950/2019).

Work plan: The work focuses on the development of code in python to represent problems related to forest fires within the scope of the project (eg fire suppression, fuel management, location of surveillance posts) and integrate the computational tools developed in the scope of other tasks of the project (integrate models and optimization methods).

The tasks to be performed are:

1. Design and implementation of an optimization framework for forest fire problems.
2. Landscape characterization module (e.g. fuels and slopes).
3. Resource characterization module (e.g. vehicles and firefighters teams).
4. Problem characterization module (e.g. ignition location and meteorology).
5. Integration of optimization modules implemented in other project tasks.
6. Execution and Results Reporting Module

7. Visualization module of the temporal and spatial fire propagation as a function of inputs (e.g. possible fuel treatments) and the optimization result (e.g. resource location).

Applicable legislation and regulations: Law No. 40/2004, of 18 August (Statute of Scientific Research Fellows); amended by Decree-Law 202/2012 of 27 August, by Law no. 12/2013 of 29 January 2013, by Decree-Law no. 89/2013, of 9 July, and by Decree-Law no.123/2019 of August 28; Regulation of Research Grants of the University of Minho and the Foundation for Science and Technology I.P, in force. <https://www.fct.pt/apoios/bolsas/regulamentos.phtml.pt>

Host Unit and Scientific Orientation: The work will be developed at ALGORITMI Research Centre, School of Engineering, University of Minho, under the scientific supervision of Professor Filipe Alvelos.

Duration of the research grant(s): The research grant will last for 12 months, starting on October, of 2021. The research grant contract will eventually be renewable, but under no circumstances may exceed the maximum duration of the project and/or the applicable legislation.

Monthly amount: The amount of the research grant, according to the list of research grants assigned directly by the FCT, I.P. in the country (<http://www.fct.pt/apoios/bolsas/valores>), corresponds 835,98 euros. Other benefits: Reimbursement of the Voluntary Social Security, corresponding to the 1st level of the contributory base (allowances lasting 6 months or more) and Personal Accident Insurance.

Composition of the Selection Jury: the Jury is composed by the President, Professor Filipe Alvelos; by the effective members, Professors Senhorinha Teixeira and Ana Maria Rocha; and for the substitute members, Professors Lino Costa and José Carlos Teixeira. If there is a need to replace the President, it is safeguarded that the first effective member, with the substitute members being appointed to replace the effective member, replaces him.

Selection methods: In a first phase, the evaluation of the applications will focus on the Candidate's Merit (MC) on a scale from 1 to 20 points. Candidates classified in the first three positions, who obtain a minimum classification of 14 points, will be admitted to the Interview phase (I).

The criteria and sub-criteria and their weights are as follows:

A. Candidate Merit - MC (70%):

A.1: Academic trajectory (including the scientific adequacy of academic training, the number and adequacy of curricular units and their grades - 60%;

A.2: Personal curriculum (including scientific production in the scientific area of the grant) - 30%;

A.3: Motivation letter and/or recommendation letters – 10%.

B. Interview - I (30%):

B.1: Interpersonal skills (10%);

B.2: Knowledge relevant to the grant (including computer programming, optimization and operational research, 50%);

B.3: Motivation (20%);

B.4: Language skills (20%).

The jury reserves the right not to award the research grant if candidates with the appropriate profile are not presented to the competition.

Documents proving the ownership of academic degrees and diplomas and/or the enrollment in courses, or their respective recognition when they have been awarded by foreign higher education institutions, may be dispensed with at the application stage, being replaced by a declaration of honor by the candidate, with the verification of this condition occurring only in phase of contracting the scholarship. This declaration must attest facts that occurred on a date prior to the application. In situations of divergence between the information contained in the declaration and the documentation submitted for the purpose of grant contracting, only the information contained in the latter will be considered. If it is verified that the documents proving the ownership of the academic degree and diploma, or the respective recognition under the terms of Decree-Law No. 66/2018, of August 16, do not correspond to the classifications awarded in the evaluation of the academic path and may, consequently, changing the candidate's ranking, the scholarship will not be contracted.

Note: Applicants with degrees obtained abroad must present proof of recognition of qualifications in Portugal and conversion of the final classification obtained in them to the Portuguese classification scale or declaration under the terms indicated in the previous point. To candidates who do not comply with one of these provisions, the jury will assign the minimum value to the grade of the respective degree, according to the defined scale of values.

Dissemination of results: The results, based on the minutes, will be sent to candidates by email, within 90 working days after the deadline for submission of applications.

If the result is unfavorable to the granting of the requested research grant, the candidates have a period of 10 working days to comment, if desired, in the context of a prior hearing to interested parties, pursuant to articles 121 and 122 of the Code of Administrative Procedure (DL n° 4 /2015 of January 7th).

Complaint and appeal procedures: The final results of the evaluation will be publicized through an ordered list, by the final grade obtained, posted in a visible and public place of the Host Unit of the University of Minho, as well as by email to all candidates, attaching, for that purpose, the minutes with the deliberations of the jury.

The selected candidate must state in writing their intention to accept the scholarship. In case of non-acceptance, the scholarship will be awarded to the applicant in order of final ranking.

A complaint may be filed against the final decision, within 15 working days, addressed to the President of the Jury. Interested parties may also present an optional hierarchical appeal, addressed to the Pro-Rector for Research and Projects, Professor Filipe Vaz.

Deadline for application and form of submission of applications: The call is open from 30/08/2021 to 17/09/2021.

Applications must be formalized, obligatorily, by sending an application letter accompanied by the following documents: curriculum vitae; enrollment certificate, certificate of qualifications or candidate's declaration (when applied), motivation letter, at least one recommendation letter, other documents considered to be relevant.

The selected candidate must certify that he/she has a qualified digital signature until the contracting phase of the scholarship. More information is available on the UMinho portal: <https://www.uminho.pt/PT/Teletrabalho/Paginas/AssinaturaDigital.aspx> or on the Portal: <https://www.autenticacao.gov.pt/>.

Applications must be sent by email to [secretaria@algoritmi.uminho.pt](mailto:secretaria@algoritmi.uminho.pt), indicating the research grant reference in Subject. Applications sent by other means will not be accepted.

The lack of any of the documents required in the application, or sending/delivering it to a location other than the one indicated above, may imply its exclusion.

Non-discrimination and equal access policy: UMinho promotes a policy of non-discrimination and equal access, whereby no candidate may be privileged, benefited, harmed or deprived of any right or exempt from any duty due to, in particular, of ancestry, age, sex, sexual orientation, marital status, family situation, economic situation, education, origin or social condition, genetic heritage, reduced work capacity, disability, chronic illness, nationality, ethnic origin or race, territory of origin, language, religion, political or ideological convictions and union membership.

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DEPARTMENT: ALGORITMI Research Center of the University of Minho

ORGANISATION TYPE: Higher Education Institute

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other documents considered to be relevant.

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### [Web site for additional job details](https://algoritmi.uminho.pt/wp-admin/post.php?post=2825&action=edit)

<https://algoritmi.uminho.pt/wp-admin/post.php?post=2825&action=edit>

## More Information

ADDITIONAL INFORMATION

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## Web site for additional job details

<https://algoritmi.uminho.pt/wp-admin/post.php?post=2825&action=edit>

# Map Information



Job Work Location



Personal Assistance locations

## WORK LOCATION(S)

1 position(s) available at  
 Universidade do Minho-  
 Centro Algoritmi  
 Portugal  
 Continente  
 Guimarães  
 4800-061  
 Azurém

EURAXESS offer ID: 671470

## Disclaimer:

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