



Universidade do Minho
Escola de Arquitetura, Arte e Design



Laboratório de Paisagens,
Património e Território

INOV.AM
INNOVATION IN
ADDITIVE MANUFACTURING

ANNOUNCEMENT FOR THE AWARD OF A RESEARCH FELLOWSHIP Lab2PT/BI-INOVA.M/04

1 research fellowship, reference Lab2PT/BI-INOVA.M/04

There is an open call for a Research Fellowship under Project N.º 79999 - INOVA.M - Innovation in Additive Manufacturing, in WP19 - Rein4Concrete, project supported by PRR - Recovery and Resilience Plan and the European Funds Next Generation EU, following the Notice N.º 02/C05-i01/2022, Component 5 - Capitalization and Business Innovation - Mobilizing Agendas for Business Innovation, ongoing in Lab2PT - Landscapes, Heritage and Territory Laboratory, University of Minho, under the following conditions:

Scientific Areas: Architecture, Civil Engineering or related areas.

Recipient category: The fellowship to be granted is intended for Doctoral Students in the area of Architecture, Civil Engineering or related areas or Masters in Architecture, Civil Engineering or related areas, enrolled in a non-academic degree course integrated in the educational project of a higher education institution developed in association or cooperation between the institution of higher education and one or more R&D units.

Requirement for granting the fellowship:

- The applicants may apply without prior registration in the course for which the fellowship is open. The requirement to enroll in a degree course or non-academic degree course will be verified on the date of contracting the fellowship;
- Only fellowships whose selected applicants present a valid proof of enrollment in a degree course or non-academic degree course will be contracted, according to the type of the fellowship, issued by the academic services of the Higher Education Institution, indicating, respectively, the academic year or its duration (star and term).

Candidates profile:

- Candidates must hold, at the time of application, a Master's degree in the scientific areas of Architecture, Civil Engineering or related fields;
- Fluency in written and oral English;
- Have an academic record and curriculum vitae whose merit the members of the jury consider to be of scientific level, research capacity and activity developed, compatible with the disciplinary area and category for which the tender is open;

Have knowledge in some of the following areas: digital fabrication and robotics, 3D printing; parametric and generative design, programming and AI; simulation and performative analysis (e.g. material, environmental, energy, comfort) and life cycle analysis (LCA); innovation in construction materials (natural materials); experimental analysis of constructive and architectural elements.





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Património e Território

INOV.AM
INNOVATION IN
ADDITIVE MANUFACTURING

Applicants eligibility: Applicants must comply with the eligibility conditions laid down in article 9 of the Research Grants Regulation of the Portuguese Foundation for Science and Technology (2019).

Workplan and objectives to be achieved:

The Fellow will carry out activities under the "INOV.AM - Innovation in Additive Manufacturing" project, specifically related to "WP19 - Rein4concrete" assigned to the University of Minho. In that context, the aim is to collaborate in the development of research and methodology development activities for 3D printing systems of cement mortars (3DPC) with structural reinforcement, focusing on the use of natural fibres, to be integrated in architectural and modular construction systems. In particular, tasks centred on:

- developing a robotic/automatic system for placing structural reinforcement in 3DCP processes;
- definition of a proposal for a modular architectural/constructive system to be produced by 3DPC;
- production of study prototypes and final demonstrators;
- documentation, dissemination and transfer of research knowledge through the production of articles, communications and content for electronic platforms, organisation of events, scientific guidance and training.

Applicable legislation and regulations: Research Fellowship Holder Statutes, approved by Law no. 40/2004 of August 18, in its current version published by Decree-Law no. 123/2019 of August 28; Regulation of Scientific Research Fellowships of the University of Minho (RBIC), published in "Diário da República", 2nd serie, no. 119, through dispatch no. 6524/2020 of 22-06-2020, ratified by ratification declaration no. 447/2021 of 22-06-2021 and Regulation of Research Studentships and Fellowships (RBI) of the Foundation for Science and Technology, I.P. - in force.

Host/Contracting institution and scientific supervision: Work will be developed at the Landscape, Heritage and Territory Laboratory, School of Architecture, Art and Design of Universidade do Minho, on the Campus of Azurém, under the scientific guidance of Professor Bruno Acácio Ferreira Figueiredo.

Fellowship duration: The fellowship will have a duration of 6 (six) months, scheduled to begin in December 2024, possibly renewable, depending on the financial availability of the project. Under no circumstances may the grant exceed the maximum duration of the project and/or the applicable legislation. Note: Candidate admitted to the tenders must meet the conditions that enable them, under the applicable Research Fellowships Regulations, to comply with the maximum legal duration for the type of fellowship stipulated in the opening notice for the tender, considering the fellowships from which they eventually benefited previously, in a consecutive or interpolated period.

Amount of the research fellowship: The value stipend (Monthly Maintenance Allowance) is 1.259,64€ per month, in accordance with the stipends values published by the Foundation for Science and Technology (FCT I.P.) in the country (Annex I – Monthly Stipends Values for the maintenance allowances of the [FCT Regulation for Research Studentships and Fellowships](#)) and Annex II of the Regulation of Scientific Research Fellowships of the University of Minho (RBIC), published in "Diário da República", 2nd serie, no. 119, through dispatch no. 6524/2020 of 22-06-2020, ratified by ratification declaration no. 447/2021 of 22-06-2021, according to the applicable regulation.





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Escola de Arquitetura, Arte e Design



Laboratório de Paisagens,
Património e Território

INOV.AM
INNOVATION IN
ADDITIVE MANUFACTURING

Payment is made on the 23st of each month, through bank transfer to the Bank Identification Number of the fellow identified in the contractualization process.

Other benefits: Reimbursement of Voluntary Social Security (Social Security contributions), corresponding to the 1st level of discounts (*for research grants with a total duration 6 months or higher*) and personal accident insurance.

Exclusivity regime: The grantee will perform the activities under exclusivity, as foreseen in article 5° of the Research Fellow Statutes and applicable regulations.

Selection panel:

President

Paulo Jorge de Sousa Cruz, Full Professor of Escola de Arquitetura, Arte e Design of the Universidade do Minho.

Effective vowels:

Bruno Acácio Ferreira Figueiredo, Associate Professor of Escola de Arquitetura, Arte e Design of the Universidade do Minho.

Aires Fernando Fernandes Leite Camões de Azevedo, Associate Professor of Departamento de Engenharia Civil of the Escola de Engenharia of the Universidade do Minho.

Substitute vowels:

Paulo Jorge Figueira de Almeida Urbano de Mendonça, Associate Professor of Escola de Arquitetura, Arte e Design of the Universidade do Minho.

Raul Manuel Esteves de Sousa Fanguero, Full Professor of Departamento de Engenharia Mecânica of the Escola de Engenharia of the Universidade do Minho.

In the event of impediment by the President of the Jury, he will be replaced by the first effective vowel, and the substitute vowel will be appointed to replace the effective vowel.

Criteria and procedures for applications assessment and selection: The evaluation of the applications will focus on the candidate's Merit, being applied the following evaluation criteria, valued on a scale of 1 to 20 points:

Merit of the candidate - MC (70%):

- a) A.1: Academic path (which reflects the classifications of the academic degrees in the scientific areas of the fellowship, according to the reference table), with a weighting of 30%;
- b) A.2: Personal Curriculum and portfolio (which reflects the applicant's scientific and professional background, when applicable), with a weighting of 60%, evidencing:





Universidade do Minho
Escola de Arquitetura, Arte e Design



Laboratório de Paisagens,
Património e Território

INOV.AM
INNOVATION IN
ADDITIVE MANUFACTURING

- Knowledge in some of the following areas: digital fabrication and robotics, 3D printing; parametric, generative design, programming and AI; simulation and performative analysis (e.g. material, environmental, energy, comfort) and life cycle analysis (LCA); innovation in construction materials (natural materials); experimental analysis of constructive and architectural elements.
 - Mastery of the English language;
 - Autonomy and organisational skills.
- c) A.3: Motivation letter, with a weighting of 10%.

The classification for the **merit of the candidate (MC)** will be obtained by applying the following formula:

$$MC=(A1*0,3)+(A2*0,6)+(A3*0,1)$$

Candidates classified in the first 3 (three) positions, as long obtaining the minimal classification of 12 (twelve) in the MC, will be admitted to the Interview phase, with the Jury proceeding to evaluate the following sub-criteria:

Interview – INT (30%):

- a) B.1: Interpersonal skills (30%);
- b) B.2: Knowledge demonstrated in the area of the tender (40%);
- c) B.3: Motivation (20%);
- d) B.4: Language skills (10%).

The classification of the **Interview (INT)** will be obtained by applying the following formula:

$$INT=(B1*0,3)+(B2*0,4)+(B3*0,2)+ (B4*0,1)$$

The final classification (FC) of the Merit of the Candidate (MC) and Interview (INT) will be obtained by applying the following formula:

$$FC=(MC*0,7)+(INT*0,3)$$

The jury reserves itself the right not to grant the fellowship if there are no candidates with the appropriate profile for the tender.

The academic degrees and diplomas documents, or their respective recognition when awarded by foreign higher education institutions are not mandatory in the application phase, being replaced by a declaration of honor of the candidate with the contents of academic results. The documents of academic qualification or respective recognition will be required in the contracting phase and 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 contracting the grant, only the information contained in the latter will be consider. If the documents proving the ownership of the academic degree and diploma, or the respective



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Património e Território

INOV.AM
INNOVATION IN
ADDITIVE MANUFACTURING

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, which can change the candidate's ranking, the fellowship won't be contracted.

Notes: *Candidates with degrees obtained abroad must present a proof of recognition of those qualifications in Portugal and a conversion of the final classification obtained in the degree to the Portuguese classification scale or a declaration in the terms indicated in the previous point. To the candidates who do not comply with one of these provisions, the jury will assign the minimum grade in the degree and / or master's course grade, according to the defined scale of values. Candidates will be evaluated on the remaining parameters.*

Disclosure of results: The provisional results of applications, based in the selection panel minutes, will be send to the applicants by email until 90 working days from the applications deadline.

If case of unfavourable results, the candidates have a period of 10 working days to comment, if desired, in a prior hearing to interested parties, pursuant to articles 121 and 122 of the Code of Administrative Procedure (DL no. 4 / 2015 of January 7th).

[The hearing of the interested parties, if excluded, should be justified accordingly with article 124º of CPA]

Complaint and appeal procedures: The final results of the evaluation will be published through an ordered list (*alphabetically, by final grade obtained*), posted in a visible and public place of the host unit, as well as by email to all applicants, enclosing for that purpose, the minutes of the jury deliberations.

The selected candidate must inform its willingness to accept the grant, in writing. In case of rejection, the fellowship will be awarded to the next candidate in the ordered list of applicants.

The final decision can be contested within 15 working days, by sending to the President of the jury the corresponding claim. Interested parties may also submit an optional hierarchical appeal, in the terms of the number 3 of article 13 of Regulation of Scientific Research Fellowships of the University of Minho (RBIC).

Constitution of a selection reserve list: The applicants ranked in the next positions on the ordered list will be included in a selection reserve list, which can be used until 31/03/2025.

Application deadline and submission: The call for applications is open from 04/11/2024 to 15/11/2024

Applications must be formalized, mandatorily, by sending an email accompanied by the following documents:

- a) Candidate's *curriculum vitae*;
- b) Candidate's portfolio;
- c) Qualification certificate(s) mandatorily specifying the final classification and, if possible, the classification obtained in all disciplines taken, or, in alternative, a declaration of honour by the candidate.
- d) For degrees obtained abroad, registration of recognition of academic degrees granted by foreign higher education institutions and registration of the conversion of the respective final classification to the Portuguese classification scale, or, alternatively, a declaration of honour by the candidate;





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Património e Território

INOV.AM
INNOVATION IN
ADDITIVE MANUFACTURING

e) Motivation letter.

Applications must be sent by email to info@lab2pt.uminho.pt, indicating the reference of the call for applications in Subject “Lab2PT/BI-NOV.AM/04”. Applications sent by other means or extemporaneous will not be accepted.

Fellowship contractualization: The fellowship will be attributed by signing a fellowship contract between the University of Minho and the fellow, accordingly with the contract minute (annex IV of the Regulation of Research Fellowships of the University of Minho (RBIC), published in *Diário da República, 2nd Série, no. 119*, through dispatch no. 6524/2020 of 22-06-2020, ratified by ratification declaration no. 447/2021 of 22-06-2021, as indicated in 2.4 of the FCT document: “[Rules for Granting and Management of Grants within the scope of R&D projects, including infrastructure projects, the multi-annual financing program for R&D units and other FCT financing instruments \(Version 2021\)](#)”.

The contract may only be concluded after all the documentation required is collected, which must take place within a maximum period of 6 months [including evidences of the academic degrees or diplomas and enrolment in degree courses or non-conferring courses, depending on the type of scholarship].

Once all the documentation has been received, the contracting entity has a period of 60 working days to conclude the scholarship contract. Once received, the fellow must return the contract duly signed within 15 working days.

The activities under the fellowship contract can only began after proper authorization by the contracting entity.

Term and cancellation of fellowship contracts: Without prejudice to the other causes provided the fellowship regulations (FCT and UMinho) and in the Statute of the Research Fellow, the fellowship ends with the completion of the work plan, as well as with the expiration date for which it was granted.

At the end of the fellowship, the grantee is obliged to present a Final Report of the work carried out, in accordance with the objectives and evaluation criteria defined with the scientific advisor, within 30 days after the end of the scholarship.

The **final report** must be prepared in accordance with Annex I of the Scientific Research Fellowships Regulation of the University of Minho (RBIC), published in *Diário da República, 2nd Série, no. 119*, through dispatch no. 6524/2020 of 22-06-2020, ratified by ratification declaration no. 447/2021 of 22-06-2021. Contract template and final report template ([link](#)).

Declaration of Honor Academic habilitations

(Full name), applicant to the research fellowship vacancy under the I&D project (title or reference), published in the Euraxess Portal, reference (notice reference), hereby declares to





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INOV.AM
INNOVATION IN
ADDITIVE MANUFACTURING

have a degree on (name of the course), concluded in the University of (XXXX), on the (conclusion date), with the final grade of (XXXX).

I have submitted my diploma for recognition at the University of XXXXX, according to the Decree-Law nº 66/2018 of August 16th(¹), concluded in the XX/XX/XXXX, with the final grade of XXXXX out of YY.

I also declare that I commit to provide proof of my diploma recognition obtained under the Portuguese Law, until the date of the conclusion of the fellowship contract, in case of being selected for the vacancy in this competition.

As this is true, this declaration will be dated and signed by me.

(Place), (date).

(name)

¹ DGES (Foreign Degrees and Diplomas): <https://www.dges.gov.pt/en/pagina/degree-and-diploma-recognition?plid=1536>; University of Minho: Recognition of foreign degrees and diplomas: <https://www.uminho.pt/EN/education/Pages/recognition-of-foreign-qualifications.aspx>