

RENEWABLE ENERGY CHAIR

RESEARCH SCHOLARSHIP FOR POST-DOCTORAL - 1 VACANCY

25 of July of 2025

A call for tenders is open for one Post-Doc Scholarship(s) within the scope of the project "Development of a parabolic Trough concentrator system for Molten Salt Application" (MSA-Trough), financed by the European Commission's Horizon Europe sub-programme, under the following conditions:

Scientific area: Mechatronics Engineering

Admission requirements:

- Doctorate in Engineering, equivalent to the desired Scientific Area. This condition is eliminatory.
- Explicit training in the subject of medium and high temperature concentrating solar thermal. This condition is eliminatory.
- Knowledge of the design and development of concentrating solar optics, particularly with raytracing software.
- Knowledge of procedures, methodologies and experimental implementation for testing solar collectors in accordance with the international standard ISO 9806:2017.
- Good command of programming languages and experience in the use of mathematical simulation software (Python is preferred).
- Good knowledge of English and Portuguese.

Regarding the "BIPD" (postdoctoral scholarship), in terms of the requirements to be verified for their attribution (article 7 of the FCT Research Grant Regulation no. 950/2019) the need for a doctoral degree to have been obtained in the 3 years prior to the date of submission of the application to the scholarship and, in terms of its execution, the fact that it can only be renewed for a maximum period of 3 years.

Work plan:

- Applied research in the development of cylindrical-parabolic concentrators with centre
 of gravity in the receiver for the production of dispatchable electricity with thermal
 storage.
- Support in experimental activities to measure the optical and thermal performance of the concentrator to be implemented on the Évora Molten Salt Platform (EMSP);
- Support in technical-economic analysis of the solutions developed and their Life-Cycle Assessment;





- Implementation of strategies to reduce solar field costs and their technical-economic valorisation;
- Support in writing research proposals aligned with the topics covered;
- Final report and possible publication of scientific results.

Applicable legislation and regulations: The granting of the Research Scholarship will be carried out upon the signing of a contract between the University of Évora and the scholarship holder, according to the version in Annex I, pursuant to the Research Scholarship Statute (Law no. 40/2004 of August 18, as amended) and considering the provisions of other applicable legislation and regulations, namely, the Research Grant Regulations of the University of Évora (published by Order no. 8131/2024, of July 22, 2024), and the Research Grant Regulations of the Science and Technology Foundation, I.P. (Regulation no. 950/2019, of July 22, 2024). 98131/2024, of July 22, 2024), https://files.diariodarepublica.pt/2s/2024/07/140000000/0035300366.pdf and in the Research Grants Regulations of the Foundation for Science and Technology, I.P. (Regulation no. 950/2019, of December 16, as amended).

Place of work: The work will be developed at SOL4R of the University of Évora, under the general coordination of the Administrator of the University of Évora and the scientific guidance of the PhD Diogo Canavarro, who must draw up an opinion on the final activity report of the scholarship (**Annex II**), according to the draft in **Annex III**.

Duration of the scholarship(s): The scholarship will have a duration of 12 months, starting on November of 2025. The scholarship contract may be renewed until the end of the funding project's budget allocation.

Amount of monthly maintenance allowance: The amount of the scholarship corresponds to €1851.00, according to the table of scholarships awarded directly by FCT, I.P. in Portugal (https://www.fct.pt/wp-content/uploads/2025/02/Tabela valores SMM_2025.pdf), payments being made monthly, by check or bank transfer.

Selection methods: The selection methods to be used will be the following:

Academic Qualifications: 50%
Classification: 50%
Suitability: 50%
Curriculum Analysis: 50%

Scientific Activity: 50%

Expertise in the requested topics: 50%

Composition of the Selection Jury:

President: Doutor Diogo Canavarro

1º Effective - Doutora Radia Ait El Cadi

2º Effective - Doutora Asma Nouira

1º Alternate: Doutor Afonso Cavaco

2º Alternate: Doutor José Silva





Advertising/notification of results: The final results of the evaluation will be publicized, through an ordered list by final grade obtained posted in a visible and public place at Universitu of Évora (SOL4R, Edifício do Anel, Mitra), being the candidate (a) approved notified through email.

To ensure the right of prior hearing of interested parties, the Final Classification project will be announced by any written means to all interested parties.

After communicating the provisional list of the results of the evaluation, candidates have a period of 10 working days to express their opinion in a preliminary hearing of interested parties. Based on the final ranking list, a reserve selection list will be drawn up, to be used for the possible recruitment of new scholarship holders within the scope of this project, up to the duration of the scholarship, which may be used in the eventuality of the first ranked candidate withdrawing, failing to present the mandatory documentation, or in the event of the scholarship holder canceling their scholarship early. In the eventuality that none of the candidates demonstrates the profile required to carry out the work plan, the jury reserves the right not to award the scholarship.

Application deadline and submission of applications: The tender is open from 4th of August to 22th of Augusto f 2025 and the results of the selection will be published by 1st of September of 2025.

Applications must be formalized, obligatorily, by sending an application letter with the following documents: 1) Curriculum Vitae 2) certificate of qualifications 3) letters of reference or recommendation 4) other supporting documents deemed relevant.

For the purposes of application, the evidence may be replaced by a declaration of honor signed by the candidate, but the failure to demonstrate that evidence, in the contracting phase, possession of the required degree on the deadline for application or the non-presentation of proof of enrollment in the study cycle or non-degree course, for scholarships with this component, imply the cancellation of the candidate's application.

Academic degrees obtained in foreign countries require registration by a Portuguese Institution in accordance with Decree-Law no. 66/2018, of August 16 and Ordinance No. 33/2019, of January 25th.

The presentation of the certificate is mandatory for the signing of the contract. More information can be obtained at: https://www.dges.gov.pt/pt/pagina/recognition?plid=374

Applications must be sent by email to:

Dr. Diogo Canavarro SOL4R of the University of Évora email: <u>catedraer@uevora.pt</u>





ANNEX I MINUTE SCHOLARSHIP CONTRACT

| Between, |
|--|
| FIRST PARTY: The (name of organisation), com sede en with registered office at (address of registered |
| office of organisation), with tax number, represented in this act by (name of representative of organisation), in the capacity or |
| (Director/President) of the contracting/financing organisation, hereinafter referred to a |
| the "First Party", and |
| SECOND PARTY: (name of grantee), holder of ID card/passpor |
| no(ID card/passport no.) and taxpayer no(taxpayer no.), resident a(address of grantee), hereinafter referred to as the "Second Party". |
| whereas, |
| The application requirements for the award of the scholarship under the call (ca identification / call notice reference) have been met, the process of evaluating the candidates and publicising the results has been completed and the required documentation has been received. This scholarship contract is entered into in good faith and mutually accepted, under the terms of the Research Fellow Statute, and is governed by the following clauses: |
| FIRST CLAUSE |
| The First Party undertakes to award the Second Party a grant (type of grant and reference of the call for tenders), within the scope of the project (type of project) / R&D uni with the reference (reference of the project or unit) and with the title (title), |
| (Reference should be made to the sources of funding for the project/unit). - with 100% OE funding - Mention of funding: financed by the Foundation for Science and Technology, I.P./MCTES through national funds (PIDDAC) - With FEDER co-financing - Mention of funding: Financed by the European Regional Development Fund (ERDF) of the European Union, through (indicate which Operational Programme it finances) Portugal 2030 or other programmes that may succeed it) starting at (date of start of the scholarship), for a period of months, possibly renewable (as defined in the call for proposals). |

SECOND CLAUSE

In the alternative, the FCT Research Grant Regulations apply, of which the Second Party declares that it is aware.

THIRD CLAUSE

The Second Party undertakes to carry out the attached work plan, the content of which he/she declares that he/she has taken full cognisance of and accepts unreservedly, from the above-mentioned start date and on an exclusive dedication basis, under the terms of article 5th of the Research Fellow Statute.





FOURTH CLAUSE

| the Second Party will carry out the work at (name of the hospitalitation as defined in Article 3(g) of the FCT Research Grant Regulations), which acts as the hospitalitation, with (name of the supervisor and affiliation institution) at the scientific supervisor. |
|--|
| FIFTH CLAUSE |
| The monthly maintenance allowance awarded is(€,00). The Second Grantor also benefits from personal accident insurance for the duration of the gran he conditions of which he/she declares to have read and accepted without reservation. The following scholarship components are also addedspecify the applicable components in the terms set out in the FCT Research Grant Regulations). |
| SIXTH CLAUSE |
| he First Party may cancel the grant and the Second Party may be obliged to refund all or part of the sum eceived in the following cases: |
| a) Serious and repeated failure to comply with the Second Party's obligations under the Researc Grant Holder Statute and the FCT Research Grant Regulations, for reasons attributable to th Second Party; |
| b) A negative evaluation of the Second Grantor's performance by the supervisor or the hos organisation under the terms of the FCT Research Grant Regulations; c) False declarations by the Second Granting Party on matters relevant to the award and renews of the grant or to the assessment of its development. |
| SEVENTH CLAUSE |
| Without prejudice to the provisions of the previous clause, this contract shall terminate automatically: |
|) Upon completion of the activity plan;) End of the period for which the scholarship is awarded;) Repeated non-compliance by one of the parties;) Revocation by mutual agreement;) Establishment of a legal employment relationship with the host organisation. |
| EIGHTH CLAUSE |
| . The rights and duties of the parties are those resulting from the provisions of the Research Fellov tatute. |
| The Second Party declares that he/she has read the Research Fellow Statute and the applicable degulation(s) and undertakes to comply with their provisions. |
| NINTH CLAUSE |
| t is agreed between the parties, that in case of need and to settle all questions arising from this contract he District Court of (name of the District) shall have jurisdiction, expressly waiving another. |





TENTH CLAUSE

Any changes to be made to the contract in the course of its performance shall be the subject of prior written agreement.

ELEVENTH CLAUSE

- 1. This contract shall take effect on the date it is signed by both parties.
- 2. The grant awarded under the terms of the FIRST CLAUSE of this contract may be renewed for additional periods of (...) months, up to a maximum of (...) months, under the terms of article 15 of the FCT Scholarship Regulations.
- 3. [ONLY FOR RESEARCH SCHOLARSHIPS, otherwise withdraw]: The award of the academic degree (or diploma) during the term of this contract shall not affect its effects, and the grant referred to in the preceding paragraph may be renewed at a later date, provided that it is aimed at carrying out activities that are indispensable for the completion of the project (...).
- 4. The concrete definition of the activities referred to in the previous paragraph is the responsibility of the First Party, after hearing the Second Party and the Scientific Advisor, and they must be included in the agreement to be signed, as provided for in the previous clause.

| of | |
|--|--|
| The First Party | The Second Party |
| | |
| (Signature and stamp of the organisation) | (Signature of the grant holder or his/her proxy) |
| With 100% OE funding | |
| Fundação para a Cáfencia e a Teonologia EDUCAÇÃO FUNDAÇÃO | |

Or with FEDER co-financing:





(Logotipo do Programa Operacional)









ANNEX II FINAL REPORT FORM (Fellowships)



UNIVERSIDADE DE ÉVORA Largo dos Colegiais, N.º 2 Apartado 94 7002-554 ÉVORA PORTUGAL Telefone (telephone): +351 266 760 975 Mail: cop@uevora.pt

| Referência da bolsa (Grant Reference) | | |
|---|----------------------------------|-------------------|
| Organização (Organisation) | | |
| DETALHES DO BOLSEIRO / FE | LLOWSHIP DETAILS | |
| Título (Title) | | |
| Nome próprio (Forename) | | |
| Apelido (Surname) | | |
| Organização (Organisation) | | |
| Departamento ou Centro (Department or Centre) | | |
| Supervisor (Supervisor) | | |
| DETALHES DO PROJETO / PRO | DJECT DETAILS | |
| (Grant Title) Referência da bolsa (Fellowship reference) | | |
| Período da bolsa (Period of Review) | Data de Início: (Start Date): | Data do Termo: |
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OBJETIVOS / OBJECTIVES

| Objetivos originais como constam na proposta (Original objectives as presented in the proposal) | | | | | |
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| Estes objetivos permaneceram válidos durante o período da bolsa, ou | | | | | |
| (These objectives remained valid throughout the Fellowship (tick box), or | | | | | |
| Estes objetivos foram modificados | | | | | |
| (explique como/ porque no seu relatório) | | | | | |
| (These objectives were changed) (tick box). | | | | | |
| (If so please explain how/why in your report) | | | | | |
| Novos objetivos (New objectives) | | | | | |
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| Sumário dos resultados do projeto: descreva em termos simples o seu tr | abalho de forma a que possa | | | | |
| ser divulgado perante uma audiência genérica | | | | | |
| (Summary of project outcomes: In simple terms describe your work in suppublicised to a general audience.) | ch a way that it could be | | | | |
| publicated to a general addiction. | | | | | |
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| Endereço de página com mais detalhes, se desejar: (Web address with f | urther details if you wish) | | | | |





RESULTADOS DA BOLSA / OUTCOMES OF THE FELLOWSHIP

| Os principais benefícios das bolsas concedidas pe (Major benefits of Évora University Fellowships inc | |
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| i) | os impactes potenciais sobre as carreiras dos |
| bolseiros e | are are of individual Fallows and |
| (the potential to impact positively on the ca | os resultados da investigação |
| (the research results) | 0 1 |
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| RELATÓRIO DAS ACTIVIDADES DESENVOLVI | DAS / REPORT ON WORK UNDERTAKEN |
| Utilize o número de páginas necessário (please | e continue on additional pages as required) |
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| Participação em conferências científicas, no pa | |
| (Scientific Conference attendances – name, loc | ation and date) |





RESULTADOS DA INVESTIGAÇÃO (RESEARCH RESULTS)

Publicações/ Publications

(1) Enuncie quantos resultados da investigação resultaram principalmente da investigação financiada através desta bolsa e indique o tipo (revista, conferência, livro, patente, software, outro). (Please state how many research results have resulted principally as a result of the research funded through this grant and indicate the type (journal, conference, book, patent, software, other))

| | REVISTA (JOURNAL) | ARTIGOS EM CONFERÊNCIA S (CONFERENCE PAPERS) | LIVRO OU TESE (BOOK OR THESIS | PATENT E (PATENT) | SOFTWAR E | OUTR O OTHER |
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| Número total de | | | | | | |
| publicações / | | | | | | |
| Total Number of | | | | | | |
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| Publications (if | | | | | | |
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| Publicações que | | | | | | |
| contêm um | | | | | | |
| coautor | | | | | | |
| estrangeiro / | | | | | | |
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| International Co- | | | | | | |
| Author | | | | | | |

| (2) | No caso de Bolseiro de mestrado ou doutoramento, referencie os dados relativos à tese: (la | 1 |
|-----|--|---|
| | the case of Master or Ph.D. Fellowship, please indicate:) | |

Título da tese/ Thesis title:

Classificação obtida / Classification:

Universidade e data/ University and date:





(3) Liste até cinco publicações que resultaram principalmente da investigação financiada através da Bolsa e indique o tipo (revista, ata de conferência, livro, patente, software, outro); se houve coautores estrangeiros ou industriais e se a publicação foi sujeita a arbitragem científica. / Please list up to five significant publications that have resulted principally as a result of the research funded through this grant and indicate the type (journal, conference, book, patent, software, other); whether there was an international or industrial co-author and whether the publication was refereed.

| AUTOR (ES) AUTHO R(S) | TÍTUL O (TITL E) | REFERÊNO Revista/Ata de Conf. (Journal/Confere | ano (yea | Vol./N (vol./ | pági na (pag | TIPO (TYP E) | Arbitrag em? Referee d? | Indust rial co- autho r? | Internati onal co- author? |
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Outros resultados da Bolsa / Other Results of the Fellowship

Indique o calendário para potencial exploração (i.e. conseguido, expectável dentro de 3 anos, expectável dentro de 10 anos, não expectável em 10 anos) e inclua números das patentes, datas, nomes e endereços das empresas, etc., de forma apropriada, nas colunas "detalhes" e "referência" / Please indicate the timescale for potential exploitation (e.g. achieved, expected within 3 years, expected within 10 years, none foreseeable in 10 years) and include patent nos., dates, company names and addresses etc. as appropriate, in the 'details' and 'reference' columns.

| | DETALHES (DETAILS) | REFERÊNCIA / REFERENCE | CALENDAR./ TIMESCALE |
|---|-----------------------|---------------------------|-------------------------|
| Licenças ou Patentes/ Licences or Patents | | | |
| Empresa de Spin Off/ Spin Off Company | | | |
| Consultadoria Direta/ Direct Consultancy | | | |
| Cursos de Formação Industrial/ Industrial Training Courses | | | |
| Compreensão Pública de Ciência e Engenharia/ Public Understanding of Science and Engineering | | | |
| Outro (especifique) / Other (please specify) | | | |





Contribuições Relacionadas Concedidas/Pendentes (Related Support Awarded / Pending)

Indique o nível de apoio à investigação que derivou principalmente como resultado da Bolsa./ Please indicate the level of research support that has arisen principally as a result of the Fellowship.

| FONTE DE FINANCIAMENTO (FUNDING SOURCE) | DETALHES (DETAILS) | SUPORTE (€) SUPPORT (€) |
|--|-----------------------|-------------------------|
| Universidade de Évora (desde o início da bolsa) | | |
| Évora University (from start of Fellowship) | | |
| Outro Organismo Nacional de Investigação /Other National Research Organization | | |
| Outro Organismo Governamental Português / Other Portuguese Government Council | | |
| Empresa / Industrial | | |
| Outra (Other) | | |
| Comissão Europeia / European Commission | | |
| | | |
| | | |
| Pendente (Pending) | | |

Assinaturas (Signatures):

| Bolseiro (Fellow) | |
|-------------------|--|
| | |
| Data (Date): | |





ANNEX III

MODEL OF THE FINAL EVALUATION REPORT ON THE ACTIVITY OF THE SCIENTIFIC RESEARCH FELLOW TO BE DRAWN UP BY THE SCIENTIFIC SUPERVISOR

- 1. Scientific supervisor of the scholarship:
- 2. Identification of the grant:
- 3. Project name:
- 4. Host organisation:
- 5. Fellow:

| 5.1. Critical analysis of the activities and work carried out by the grant holder. [A brief description of the activities carried out by the grant holder, in accordance with announcement and the activity plan, and a critical appraisal of the objectives and resultance achieved by the grant holder]. | |
|--|-----|
| | |
| 5.2. Final assessment of the work carried out by the grant holder. [Reasoned overall appraisal of the work carried out by the grant holder, with a final posit or negative balance, addressing their performance, effort and dedication] | ive |
| | |
| Évora, of 20 | |

The Scientific Supervisor of the Scholarship, ____ (full name)

