



UNIVERSIDADE DE ÉVORA

INSTITUTE OF EARTH SCIENCES

Post Doctoral Research Scholarship– 1 vacancy

8th of May of 2023

A call for tenders is open for 1 Post-Doctoral (Post-Doc) Scholarship within the scope of the project “*PilotSTRATEGY - CO₂ Geological Pilots in Strategic Territories*”, application for the H2020-LC-SC3-2018-2019-2020 call with reference GA 101022664, funded through EU Horizon 2020, under the following conditions:

Scientific area: Earth Sciences

Admission requirements:

The candidate must hold a Doctoral degree (Ph.D.) in Reservoir Engineering or in related scientific areas, such as Petroleum Engineering, Hydrogeology, Earth-Resources, Mathematics, Geology, Physics and Mining Engineering.

Experience on dynamic flow simulator, such as Eclipse Black Oil (Schlumberger) and/or Tempest (Aspentech), or similar, self-drive and be eager to learn about CO₂ dynamic reservoir modelling, capable for teamwork and with good communication skills. Previous engagement on in CO₂ storage projects appreciated but not mandatory.

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:

The candidate will integrate a multidisciplinary team of University of Evora and will develop its research on, but not limited to:

- Building up the dynamic model based on the static modelling results.
- Performing storage capacity assessment by simulation based on well location and flow rate optimization.
- Defining fluid flow scenarios and evaluate the risk of rock fracturing, amount of CO₂ injected and maximal overpressure.
- Conducting sensitivity and uncertainty analysis.
- Maximizing the storage capacity and optimize of well location.
- Conducting injection scenarios and risk analysis.
- Simulating the CO₂ fate on the long -term.



UNIVERSIDADE DE ÉVORA

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, as set in the template [former.fct.pt/apoios/Minuta_Contrato_Bolsa.docx](https://files.fct.pt/apoios/Minuta_Contrato_Bolsa.docx), pursuant to the Research Scholarship Statute (Law No. 40/2004 of August 18 and Decree-Law No. 123/2019 of August 28) and in accordance with the legislation and Regulation of Research Grants of the Foundation for Science and Technology, IP in force, regulation nº950/2019 of December 16, 2019: <https://files.dre.pt/2s/2019/12/24100000/0009100105.pdf> and other applicable rules.

Place of work: The work will be developed at the Institute of Earth Sciences/ Geoscience Department, at the Science and Technology School of the University of Évora, under the scientific guidance of Professor Júlio Carneiro.

Duration of the scholarship(s): The scholarship will have a duration of 12 months, starting on September 2023, and it may be renewed for similar periods of time up to a maximum of 3 years or until the end of the funding project's budget allocation.

Amount of monthly maintenance allowance: The net amount of the scholarship corresponds to €1 741.00, according to the table of scholarships awarded directly by FCT, I.P. in Portugal (https://www.fct.pt/wp-content/uploads/2023/02/Tabela-de-Valores-SMM_2023.pdf), payments being made monthly, by check or bank transfer.

Selection methods:

The selection methods to be used will be the following: curricular assessment (CA), based on the candidate's academic merit (MA), previous research experience (PRE) and basic knowledge (BK) indicated in the admission requirements, with $CA=(0.5*MA)+(0.3*PRE)+(0.2*BK)$, being the different components quantified between 0 and 100%.

After the curricular evaluation (CA) and only for those candidates that have achieved in this component a valorisation of at least 60%, an interview (I) may be held, obtaining the final classification (FC) as follows: $FC=(0.6*CA)+(0.4*I)$,

Composition of the Selection Jury:

The Selection Jury of the contest consists of the following members:

President: Prof. Doctor Júlio Carneiro, Associate Professor, Department of Geosciences, University of Évora

1st Effective Member: Doctor Maria Helena Caeiro, Researcher of the Institute of Earth Sciences, University of Évora

2nd Effective Member: Doctor Pedro Pereira, Researcher of the Institute of Earth Sciences, University of Évora

1st Alternate Member: Prof. Doctor Carlos Ribeiro, Assistant Professor of the Department of Geosciences, University of Évora



UNIVERSIDADE DE ÉVORA

Advertising/notification of results: The final results of the evaluation will be publicized, through an ordered list by the final grade obtained and posted in a visible and public place at the Institute of Earth Sciences/ Geoscience Department of the University of Évora, being the candidate 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.

Application deadline and submission of applications: The tender is open from 11th of May to 12th of June of 2023 and the results of the selection will be published by 19th of June of 2023.

Applications must be formalized, obligatorily, by sending an application letter with the following documents: Curriculum Vitae with the description of the curricular units and grades obtained, certificate of qualifications, recommendation letters and other supporting documents considered relevant of the academic and/or professional career.

For the purposes of application, the evidence may be replaced by a declaration of honour 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 enrolment 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:

Doctor Maria Helena Caeiro

Institute of Earth Sciences/ Geoscience Department of the University of Évora

email: maria.caeiro@uevora.pt



PilotSTRATEGY