RENEWABLE ENERGIES CHAIR

RESEARCH SCHOLARSHIP FOR BACHELOR DEGREE – 1 POSITION

26 November of 2021

A call for tenders is open for 1 Scholarship for **Bachelor degree**, within the scope of the project **SolarTech** - Transferência de Tecnologia e Conhecimento em Energia Solar e Armazenamento de Energia, Ref. ALT20-03-0246-FEDER-000053, co-funded by national funds through Programa Operacional Regional do Alentejo, ALT2020, and by the Fundo Europeu de Desenvolvimento Regional (FEDER), under the following conditions:

Scientific area: Thermodynamics and Energy Engineering.

Admission requirements:

- Bachelor's degree in Renewable Energies Engineering, Mechanical Engineering, Physics or other Engineering field addressing Thermodynamics and thermal conversion and/or thermal energy storage equipments and systems;
- Preference for candidates holding a Master Degree in the aforementioned fields;
- Registration on an accredited Master (for Bachelors) or Doctoral (for Masters) Program;
- Experience in the modelling and simulation of thermal systems with Thermal Energy Storage (TES) for solar process heat (SHIP) and/or Concentrated Solar Power (CSP) applications;
- Preference for scientific experience in research activities in the field of medium and high temperature application of Solar Concentration technologies; in Thermal Energy Storage (TES) systems based in phase change materials (PCM) for process heat (SHIP) and/or Concentrated Solar Power (CSP) applications; in thermodynamic cycles, heat pumps and Carnot batteries;
- Preferably with previous experience in the commissioning and operation of thermal systems;
- Preferably with previous activity and contact with industrial partners and stakeholders.

As set forth FCT Research Scholarship Regulation No. 950/2019 of December 16, 2019, article 3 and 6, candidates for "BI" must comply as a rule condition for the award of the scholarship, the effective inclusion in study cycles leading to the attribution of academic degrees or in courses not leading to an academic degree. Courses that do not confer an academic degree correspond to the courses provided for in subparagraph e) of paragraph 3 of article 4 of Decree-Law No. 74/2006 of 24 March and must be developed in a higher education institution in association with at least one R&D unit, including a course plan in one or several research areas of the unit.

Work plan:
The work plan foreseen for the Scholarship is related to the activities of the SolarTech project in the scope of the technological demonstration of solar industrial process heat includes:

- Sizing and project of thermal storage system based in phase change materials with the possibility of circulating different heat transfer fluids and low-pressure steam generation;
- Sizing and project of solar thermal system to integrate the thermal storage system above described;
- Contact with suppliers to define the tender procedures necessary for the acquisition of components and/or materials necessary for the construction of the planned systems;
- Definition of the system's control and monitoring system;
- Physical implementation of the system;
- Performance of technical tests and evaluation of results;
- Support in the production of project reports 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, as set in the template https://www.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, in https://www.fct.pt/apoios/bolsas/regulamento.phtml.pt and other applicable rules.

Place of work: The work will be developed at the Renewable Energies Chair of the University of Évora, under the scientific guidance of Doctor Pedro Horta, at the facilities of the Renewable Energies Chair at Polo da Mitra - University of Évora.

Duration of the scholarship: The scholarship will have a duration of one year, starting on January of 2022. The scholarship contract may be renewed until the end of the financing project's budget allocation.

Amount of monthly maintenance allowance: The amount of the scholarship corresponds to 835,98€ according to the table of scholarships awarded directly by FCT, I.P. in Portugal (http://fct.pt/apoios/bolsas/valores), payments being made monthly, by check or bank transfer.

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

Academic Qualifications: 45%
Classification: 50%
Adequacy: 50%

Curriculum Analysis: 45%
Scientific Activity: 50%
Experience in requested topics: 50%

Interview: 10%
Motivation: 50%
Projects: 50%

Composition of the Selection Jury:
Presidente: Afonso Cavaco (Investigador - Cátedra Energias Renováveis - Universidade de Évora)
1º Vogal – Radia Ait El Cadi (Investigadora - Cátedra Energias Renováveis - Universidade de Évora)
2º Vogal – Luís Fialho (Investigador Auxiliar - Cátedra Energias Renováveis - Universidade de Évora)
1º Suplente – Diogo Canavarro (Investigador Auxiliar - Cátedra Energias Renováveis - Universidade de Évora)
2º Suplente –Pedro Horta (Titular - Cátedra Energias Renováveis – Universidade de Évora)

Advertising/notification of results: The final results of the evaluation will be publicized, through a list sorted by final grade posted in a visible and public place at the University of Évora (Renewable Energies Chair, Polo da Mitra), and the selected candidate will be notified by 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 30th November to 16th December, 2021 and the results of the selection will be published by 19th December, 2021. Applications must be formalized, obligatorily, by sending an application letter with the following documents: **Curriculum Vitae, certificate of academic qualifications and other supporting documents considered 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 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/reconhecimento?plid=374

Applications must be sent by email to:

Doutor Afonso Cavaco
Renewable Energies Chair of the University of Évora

Email: **catedraer@uevora.pt**

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TRANSFERÊNCIA DE TECNOLOGIA

Co-financed by:
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