CALL FOR RESEARCH FELLOWSHIP

University of Coimbra opens a call for one research fellowship, in the framework of the project "WAREHOUSE OF THE FUTURE – mobile robot platform" (reference: POCI-01-0247-FEDER-072638), financed by the European Regional Development Fund (FEDER), through Portugal 2020 (PT2020), and by the Competitiveness and Internationalization Operational Programme (COMPETE 2020), and Lisbon Regional Operational Program in the following conditions:

Scientific area: Operations Research and Optimization.

Skills/Qualifications/Admission requirements: Master Degree Industrial Engineering and Management, Systems Engineering, Computer Engineering, Electrical Engineering and Computers or related area and enrolled in a PhD course or in a Non-Degree course .

Courses not conferring an academic degree" must be related to the research fellowship's activity type.
Courses not conferring an academic degree" are the courses referred to in paragraph e) of number 3 of article 4 of Decree-Law no. 74/2006, of 24 March, in the current wording, provided that they are developed in association or cooperation between the higher education institution and one or more R&D units, in accordance with the provisions of paragraph e) of article 3 of the Regulation for Research Fellowships of the Fundação para a Ciência e a Tecnologia, I.P.

Although the recipients must be enrolled in a cycle of studies leading to the attribution of an academic degree or in a course not conferring an academic degree, at the time of application it is not necessary for the candidate to have made such an enrollment, and proof of enrollment must be presented until thefellowship is contractualized. Candidates are only required to meet the requirements to enroll in the training offer. If there are candidates already enrolled (including attending a course), they compete on an equal footing with those who are not enrolled.

Work plan/ Objectives: Development of operational research techniques according to the following general tasks:

1. Study and definition of efficient picking strategies and new concepts for the definition of picking areas, categorization, and clustering of different types of parts/components;

2. Study and development of new concepts and models for planning and scheduling picking orders and for routing

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3. Study and development of operational research techniques (mathematical and/or meta-heuristic programming models and/or hybridization and optimization-simulation strategies) in order to support large-scale instances

4. Development of datasets based on the information and statistical data of the picking activity

5. Writing of 2 scientific papers with the potential to be published in international journals

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Regime: The attribution of the fellowship does not generate or entitle a relation of a legal-labour nature, and the fellowship is undertaken in an exclusive dedication regime. The fellowship holder is awarded the Fellowship Statute of the UC, in its current wording, according to the Research Fellowship Holder Statute , and according to the Regulation for Research Fellowships of the Fundação para a Ciência e a Tecnologia, I.P., both in their current wording.

Location: Mechanical Engineering Department at the University of Coimbra.

Duration: 6 months.

Renewal: Eventually renewable for periods of 6 months until the end of the project.

Scientific orientation: Professor Cristóvão Silva and Professor Telmo Pinto.

Financial conditions: The amount of the fellowship is € 1.104,64 corresponding to the monthly compensation stipulated in the FCT table (https://www.fct.pt/apoios/bolsas/valores.phtml.en), plus social security (*Seguro Social Voluntário*, first level contributions) and personal accidents insurance. The payment will be made by bank transfer. This amount will not be increased during the entire period of the fellowship duration.

Selection methods: Curricular Evaluation (100%).

Selection criteria: In the curriculum evaluation, the following parameters will be considered:
- Qualifications/skills demonstrated in the Curriculum Vitae - 40%
- Proven frequency and classification in curricular units related to the theme - 30%
- Motivation letter - 30%

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In the event that the Jury consider that any candidate has the appropriate profile for the execution of the work plan, or if any candidate obtains 50 points (0-100 grading scale) in the evaluation, the Jury reserves the right to close the competition without any recruitment.

Preference will be given to candidates with:
- Solid knowledge of operational research and optimization
- Domain of the use of optimization solvers and programming language
- Publications and/or other work carried out in the area of operational research;
- Proficiency in the written and spoken English language.

Jury responsible for selection: Professora Aldora Gabriela Gomes Fernandes; Professor Cristóvão Silva; Professor Joaquim Norberto Cardoso Pires da Silva e Professor Telmo Miguel Pires Pinto.

Formalization of application: Applications must be formalized mandatorily by sending the:
(1) motivation letter;
(2) curriculum vitae;
(3) recommendation letters (optional);
(4) certificate(s) of qualifications designating the curricular units and respective classifications;
(5) Copy of the proof of enrolment in a PhD Course or in a Non-Degree Course at the University of Coimbra.

Declaration on the honor of the candidate(s) with the indication of the fellowship(s) of the typology to which the contest was held and the respective duration(s).

Applicants with academic degrees obtained abroad will be required to present a Certificate of Recognition in accordance with applicable law. This document is mandatory only in the contractualization phase.

Applications submission: Applications must be sent by email to the following addresses: telmo.pinto@uc.pt and cristovao.silva@dem.uc.pt .

Submission of applications: Between 02/07/2021 and 15/07/2021.

Submission deadline date: 15/07/2021.

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Additional information: The evaluation results will be announced within 90 days after the end of the applications submission deadline, by notifying the applicants via email. After the announcement of the results, candidates are considered automatically notified to, if they wish to do so, comment on the results on a preliminary hearing period within 10 days after that date. After this, the selected candidates will have to declare in writing their acceptance. Unless a justification worthy of consideration is presented, if the declaration is not submitted within the referred period, it is considered that the candidate waivers the fellowship. In case of resignation or withdrawal of the selected candidate, the next candidate with the highest evaluation score will be notified immediately.

Once the selection process is completed, the fellowship contract will be drawn up in accordance with the draft contract provided by the FCT.

After the contracted period, the fellowship holder and supervisor must prepare the final report in accordance with the respective assessment criteria that were established.

Selection reserve list: n.a.

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