

**CALL FOR RESEARCH GRANTS IN THE FRAMEWORK OF PROJECTS AND R&D
INSTITUTIONS
Process SmartWater01**

It is open a call for one (1) research fellowship at the “Institute of Systems and Robotics – University of Coimbra” (ISR-UC), in the framework of the project “SmartWater - Smart Water Meter and Intelligent Water Analytics Platform for Water Pipeline Leakages Localization and End-Use Water Demand Outline” (reference: SmartWater/2019/47730), project led by the “CWJ - Projecto, SA” (CWJ-P) company, having ISR-UC as participant, and co-financed by the co-financed by the “Centro Region Operational Programme” (CENTRO 2020), Portugal 2020 (PT2020), and by the European Union through the European Regional Development Fund (ERDF), with the following characteristics:

Scientific area: Electrical and Computer Engineering, or a related area.

Admission requirements: The scholarship is for **(1)** students enrolled in a doctoral/PhD course in a Portuguese higher education institution; **or (2)** enrolled in a course not conferring an academic degree integrated in the educational project of a Portuguese higher education institution.

In case of enrollment in a course not conferring an academic degree, the fellowship can only be awarded to those who do not exceed, with the conclusion of the fellowship contract in question, including possible renewals, an accumulated period of two years in this typology of fellowship, followed or interpolated.

“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 of Research Grants of the Fundação para a Ciência e a Tecnologia, I.P.

Preferential conditions: knowledge on computational intelligence / artificial intelligence, machine learning, big data analytics, data mining, modeling, prediction, computer programming; Knowledge in the subject area of the activity object / work plan of the fellowship.

Work plan: The fellowship(s) aims(aim) at consolidating scientific training through the development of research and development work in computational intelligence / artificial intelligence, machine learning, big data analytics, data mining, modeling, prediction, computer programming, data pre-processing, feature selection from data, development of prediction models, classification, regression, using computational intelligence techniques, for water pipeline leakages detection, and end-use water demand prediction. A large part of the work will focus mainly on algorithms, data processing, and machine learning.

Applicable law and regulation: Statute of the Research Fellow; and Regulation of Research Grants of the Fundação para a Ciência e a Tecnologia, I.P.; both in their current wording. 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.

Location: “Institute of Systems and Robotics – University of Coimbra” (ISR-UC), and partner facilities as needed.

Duration: 6 months.

Renewal: The fellowship is eventually renewable, for additional periods of 12 months, or for one final lower-duration period until the end-date of the project, while there still exists financial availability within the project, and it is not possible that the contract end date (including its renewals) exceeds the end date of the project. The end date of the project is currently predicted to be 2023-June-30.

Scientific Orientation: Prof. Rui Alexandre de Matos Araújo.

Financial conditions: The remuneration amounts to € 1104.64.

Selection methods: The selection method to be used is curricular evaluation. In case the Jury considers it necessary, an interview can be conducted to a number of candidates better classified according to the curricular evaluation. In this case, the global evaluation will include the curricular evaluation, with a 70% rating, and the interview, with a 30% rating. For each contract, in case no candidate has an adequate profile (global evaluation under 50%), the contract will not be granted. Applicants who have not submitted the relevant certificate of enrollment in course during the fellowship application phase, but just declaration on the honor by the candidate that he/she will enroll in the course, the ISR-UC may eventually establish a deadline (equal to or before the date of signature of the fellowship contract) to submit that certificate. Candidates who do not present the certificate by this deadline will be excluded from the fellowship.

Selection and attribution criteria: The curricular evaluation will focus on the following criteria: (1) Curricular elements presented, including the characteristics of academic education (weight 3/7); (2) Knowledge in the area of the work plan and desired profile; knowledge on computational intelligence / artificial intelligence, machine learning, big data analytics, data mining, modeling, prediction, computer programming; Knowledge in the subject area of the activity object / work plan of the fellowship (weight of 4/7). In the eventual interview, motivation, commitment, perseverance, adequacy of the profile and merit of the candidate to the needs of the project, and knowledge in the area of the work plan and desired profile will be evaluated.

Jury responsible for selection: Professor Aníbal Traça de Carvalho Almeida, Professor Doutor Rui Alexandre de Matos Araújo, Professor António Paulo Mendes Breda Dias Coimbra.

Formalization of application: Applications must be formalized, obligatorily, by sending the following elements: (1) Letter of presentation, application and motivation; (2) Curriculum Vitae (CV) of the applicant, specifying skype address; (3) Copy of the certificate(s) of academic qualifications with the mean overall final classification in the courses (e.g. Grade Point Average, GPA); (4) Proof of enrollment in a doctoral/PhD course, or in a course not conferring an academic degree integrated in the educational project of a Portuguese higher education institution, or a declaration on the honor by the candidate that he/she will enroll in the course until the date that eventually may be defined by the ISR-UC (date equal or previous to the date of contract signature, a date that may exist in case a fellowship is granted); (5) Declaration on the honor of the candidate(s) with the indication of the fellowship(s) of the type to which the contest is held and the respective duration of such fellowships.

The CV should include: (i) contact information, (ii) Academic qualifications (including, for each course, a complete list of the concluded courses/subjects/curricular units and their classifications), (iii) List of scientific publications, (iv) Main projects where the applicant has participated, (v) other information considered relevant.

Applications submission: Applications should be sent in PDF format by email to: rui@isr.uc.pt.

Submission of applications: Between 2021/09/01 and 2021/09/24.

Publication date: 2021/08/30.

Deadline for application: 2021/09/24.

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 waives the grant. In case of resignation or withdrawal of the selected candidate, the next candidate with the highest evaluation score will be notified immediately.