

CALL FOR RESEARCH GRANT

A call for one research fellowship is open, in the framework of the project "CONNECTA-X - Interoperable System and Modules for Appliance Integration in Intelligent Home Ecosystems" (reference:POCI-01-0247-FEDER-033354), co-financed by the European Regional Development Fund, through Portugal 2020 (PT2020), and by the Competitiveness and Internationalization Operational Programme (COMPETE 2020), within the framework of the System of Incentives to Research and Technological Development (SII&DT), in the following conditions:

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

Admission requirements: MSc Degree in Electrotechnical Engineering and Computers, MSc Degree in Software Engineering, MSc Degree in Physics Engineering, or similar; as well as cumulatively enrolled as a PhD student, or enrolled in a course that does not bestow an academic degree integrated in the educational project of a higher education institution. A course that does not bestow an academic degree must be related to the type of activity of the grant.

A «course that does not bestow an academic degree» is defined according to point e) of n.º 3 of the [4.th](#) article of the Law Decree n.º 74/2006 from march 24, in its current form, as long as such course is carried out in association or cooperation with the higher education institution and one or several R&D units, according to point e) of the 3.rd Article of FCT's Regulation for Research Grants. .

Preferential conditions: knowledge on computational intelligence / artificial intelligence, machine learning, modeling, prediction, real-time systems, computer programming; knowledge in the subject areas of the activity object 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, modeling, prediction, optimization, and real-time systems, and their applications in the context of *Internet of Things (IoT)*, *Smart Energy*, e *Home Automation* in inter-operable system and modules for appliance integration in intelligent home ecosystems; real-time data analysis (*data streams*), identification of models of data and identification and optimization of actions to make on the system.

A large part of the work will focus mainly on algorithms, data processing, and machine learning.

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 fellow is granted with the Fellow Statute of the UC, in its current wording, according to the Statute of the Scientific Research Fellow, and according to the Regulation of Research Grants of the Fundação para a Ciência e a Tecnologia, I.P., both in their current wording.

Location: Critical Software, S.A. facilities, and Department of Electrical and Computer Engineering (DEEC), Faculty of Science and Technology (FCTUC) at the University of Coimbra. at the University of Coimbra.

Duration: Six (6) months.

Renewal: The fellowship(s) is(are) eventually renewable through periods of equal or lower duration making a total duration not greater than 19 months. The period(s) of each fellowship (including their renewals) will be adjusted if necessary in order for the fellowship to not terminate after the end date of the project (predicted to be 2021/09/30). In the case of fellowships awarded to masters who are enrolled in study cycles that do not confer an academic degree, the fellowship with renewals cannot exceed two years.

Scientific orientation: Prof. Rui Alexandre de Matos Araújo..

Financial conditions: The amount of the grant is € 1064,00 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 grant duration.

Selection methods: Curricular evaluation (70%) and interview (30%) of the 10 best classified candidates in the curricular evaluation part. For each fellowship, in case no candidate has an adequate profile (global evaluation under 50%), the fellowship will not be granted.

Selection criteria: The curricular evaluation will focus on the following criteria: (1) Curricular elements presented, including the characteristics of academic education and the mean overall final classification in the courses (e.g. Grade Point Average, GPA) (30%); (2) Knowledge in the area of the work plan and desired profile; knowledge on computational intelligence / artificial intelligence, machine learning, modeling, prediction, real-time systems, computer programming; knowledge in the subject areas of the activity object of the fellowship (40%). In the 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 (30%).

Jury responsible for selection: Prof. Aníbal Traça de Carvalho Almeida, Prof. Urbano José Carreira Nunes, Prof. Rui Alexandre de Matos Araújo.

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; (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.

The final evaluation results will be publicized through an ordered list (by final grade obtained), posted in a visible and public place at FCTUC-DEEC.

Candidates with foreign academic diplomas are obliged to present records of the recognition of such diplomas according to the Portuguese law.

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

Submission of applications: Between 15/09/2020 and 09/10/2020.

Publication date: 14/09/2020.

Submission deadline date: 09/10/2020.

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.