

## CALL FOR AWARDING RESEARCH FELLOWSHIPS WITHIN PROJECT GRANTS AND R&D INSTITUTIONS

### 1 (one) Research fellowship for MSc Student

Ref.: 500.8 – 1 BI EM AQUAMON

1 Research Fellowship(s) (BI) is(are) open at the **FCiências.ID – Associação para a Investigação e Desenvolvimento de Ciências**, for the project/R&D institution AQUAMON – Monitorização Confiável em Ambientes Aquáticos com Redes de Sensores sem fios”, “PTDC/CCI-COM/30142/2017”, financed by Fundação para a Ciência e a Tecnologia, I.P./MCTES under national funds (PIDDAC), under the following conditions:

1. **Scientific Area:** Computer Science and Engineering
2. **Requirements for admission:** BSc in Information Technology or Informatics Engineering
3. **Additional optional skills and qualifications:** Enrolled in 2nd year of a Master's degree in Informatics Engineering, working for the master's thesis. Experience with Mobile Software Development, IoT, Information Systems and web design; Knowledge proven by approval in curricular components in the areas of IoT, Mobile Computing and Information Systems.
4. **Contracting requirements:** Presentation of the academic qualifications and/or diplomas. Enrollment in MSc studies in Informatics Informatics Engineering
5. **Work plan:** The AQUAMON project aims to develop a platform for reliable monitoring in aquatic environments with wireless sensor networks. It will provide solutions for data transmission quality problems on aquatic surfaces, communication predictability in shared media, and data quality models to deal with errors in values or lack of information. This scholarship will support developing a cloud-based platform that allows collecting information from sensors, process their information, assess data validation, correlate data, and generate automatic reports with relevant information for the correct monitoring of Seixal Bay. These reports will be made available through an APP and a web interface. Both solutions will be developed under this grant. In addition to the possibility of data visualization, both the APP and the web interface must offer device control resources. The platform will be integrated with the monitoring and forecasting hydrodynamics and water quality system deployed in the Seixal bay, in the Tagus estuary. The objectives of this scholarship include 1) Literature review on MQTT and RESTful service architectures for IoT device integration; 2) Design and specification of services and APIs; 3) Implementation of services and APIs on the AQUAMON platform; 4) Design and implementation of an APP and a web page to support the visualization and control of the platform; 5) Testing and validation of the solution; 8) Thesis writing.
6. **Legislation framework:** Research Fellowship Holder Statute, in accordance with Law 40/2004, of 18 August, in its current version and the FCT Regulation for Research Studentships and Fellowships, in its current version (Reg. 950/2019 published in DR on 16<sup>th</sup> December: <https://dre.pt/application/file/a/127230968>, or at the FCT website: <https://www.fct.pt/apoios/bolsas/regulamento.phtml.pt>), and FCiências.ID Fellowship Regulation, as approved on 12<sup>th</sup> May 2020 (available at [Regulamento de Bolsas de Investigação Científica da FCiências.ID](https://www.fciencias.id/regulamento)).
7. **Place of work:** The work will be developed at LASIGE, Faculdade de Ciências da Universidade de Lisboa under the scientific supervision of Professor José Cecílio.

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8. **Fellowship duration:** This position is initially opened for 6 months and will begin on September 2021. The fellowship contract may be potentially renewed for until the end of the project, in accordance with the provisions of Regulation of Research Fellowships from the Foundation for Science and Technology, I.P.
9. **Monthly allowance:** The fellowship amounts to € 835,98 ,according to [table values](#) of the fellowships awarded directly by the FCT, IP. The fellowship holder will have a personal accident insurance and can ensure the right to social security through adherence to the voluntary social insurance scheme, if not covered by any other social protection scheme, pursuant to *Código dos Regimes Contributivos do Sistema Previdencial de Segurança Social*. The fellowship will be paid monthly by bank transfer.
10. **Evaluation and selection process:** Candidates will be assessed by the quality of their CV 55% and BSc Degree average: 30% and Research Experience: 15%.
11. **Selection Committee:** Chair: José Cecílio; Members: António Casimiro Costa and Pedro Ferreira; Replacement Members: André Souto and Vinícius Cogo.
12. **Publication/notification of results:** All the candidates will be notified by e-mail, sent by the call holder, with the selection meeting minutes enclosed.
13. **Deadlines:** This call for applications is open from 17/08/21 to 30/08/2021 .
14. **Application:** Applications should be sent via e-mail to [lasige-candidaturas@listas.di.ciencias.ulisboa.pt](mailto:lasige-candidaturas@listas.di.ciencias.ulisboa.pt), with the subject: 500.8 – 1 BI EM AQUAMON, by attaching the following documents:
- Curriculum vitae – **CV may be provided in PDF or through the [CIÊNCIAVITAE](#) system;**
  - Certificate of completion of previous degree;
  - and other documents considered relevant.
15. **Time limits for the appeal procedure:** In case of negative decision, the candidates have 10 business days, after the date of announcement of the results of the candidates' evaluation, to pronounce their disagreement in accordance with the *Código do Procedimento Administrativo*. Appeals against the final decision may be submitted to the Administration Board of FCiências.ID ([fciencias.id@fciencias-id.pt](mailto:fciencias.id@fciencias-id.pt)) within 15 business days after the notification date

**NOTE 1:** The documents that prove the entitlement of the academic qualifications and diplomas, or the proof of registration in the academic degree or diploma requested on the call, can be dismissed during the application period and replaced by a declaration on their honour from the applicant. Their delivery is mandatory for the fellowship contractualization.

**NOTE 2:** Please note that - higher education degrees and diplomas awarded by foreign higher education institutions need to be recognized by a Portuguese higher education institution, pursuant to the [Decree-Law nr. 66/2018](#) (August 16) and the [Ministerial Order nr. 33/2019](#) (January 25). The presentation of the recognition certificate is mandatory for contract signature. More information can be obtained at: <https://www.dges.gov.pt/en/pagina/degree-and-diploma-recognition>.