

(BL165/2021-IST-ID)

Research Studentships for PhD students

Applications are open for 1 Research Studentship(s), within the framework of project/R&D institution InTheMED), 1009, financed by national funds through under the following conditions:

Scientific Area: Mining and Georresources

Admission Requirements: A degree in Petroleum Engineering or related discipline, preferably on geophysics, mining engineering or geology. The applicant should have experience in scientific programming languages and deep learning libraries. Availability to work in an interdisciplinary environment. Programming skills in C++ is highly valuable and *To be enrolled at a PhD*.

Workplan: This research studentship focuses on the development and implementation of physics-aware deep learning methods to predict subsurface properties from geophysical data. These methods will be tailored for modelling and characterization of complex groundwater systems. In a second step, the objective of this work is to integrate uncertainty assessment in the predictions obtained from the deep learning system. The research activities part of an international project related to sustainable groundwater management. The student will be integrated in a highly motivated research group that couples geophysical methods with spatial data science methods for computational Earth modelling. The work will be developed during a three year-period. At this time, the student is expected to have all the necessary publications to obtain a PhD Degree.

Legislation and Regulations: Statute of Scientific Research Fellow, approved by Law nr. 40/2004, of August 18, as worded by Decree-Law nr. 123/2019, of August 28; FCT Regulation for Research Studentships and Fellowships, available on <https://www.fct.pt/apoios/bolsas/docs/RegulamentoBolsasFCT2019.pdf> and <https://dre.pt/application/file/a/127230968>.

Workplace: The work will be developed at Centro de Recursos Naturais e Ambiente (CERENA) of Instituto Superior Técnico, under the scientific supervision of Leonardo Azevedo

Duration: The research fellowship(s) will have the duration of 12 months. It's expected to begin in December 2021 and may be eventually renewed up to the maximum of 36 months.

Monthly maintenance allowance: According to the values for Research Fellowships awarded by FCT in Portugal (<http://www.fct.pt/apoios/bolsas/valores>), the amount of the monthly maintenance allowance is € 1.104,64€, being the payment method an option of the Fellow by Wire Transfer/Check.

Selection methods: Curriculum evaluation and individual interview. Each component weight 50%. Only the best three candidates based on the curriculum evaluation will be interviewed.

Composition of the selection Jury: Professor Leonardo Azevedo, Maria João Pereira, Amílcar Soares

Announcement/ notification of the results: The final evaluation results will be communicated to all applicants by email.

Application deadline and formalization: The call is open from 12 until 30 November 2021.

It is mandatory to formalize applications with the submission of the following documents: i) B1 Form – Fellowship application (<http://drh.tecnico.ulisboa.pt/bolseiros/formularios/>); ii) *Curriculum Vitae*; iii) academic degree certificate, where applicable; iv) proof of enrollment at an academic degree course (PhD); v) motivation letter;

Applications must be submitted to the email: juliar@tecnico.ulisboa.pt