

(BL178/2024-IST-ID)

### Research Studentships (for PhD students)

Applications are open for one Research Studentship, within the framework of project CALCITE – Mecanismos de fixação e durabilidade do tratamento de solos por biocimentação. Aplicação a um talude real para evitar ravinamento, PTDC/ECIEGC/1086/2021, financed by national funds through FCT/MCTES (PIDDAC), under the following conditions:

**Scientific Area:** Chemical Engineering or Environmental Engineering

**Admission Requirements:** *To be enrolled at a PhD.*

**Workplan:** Laboratory testing on bentonite clay to study its interaction with bacteria and feeding solution used on soil biocementation. The study on clay swelling under the exposition of the different fluids is predicted, as well as the analysis of clay influence on bacterial growth. It is expecting the writing of a scientific paper for a journal in English.

**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 the laboratories of Geotechnics and of Water Analysis of IST, CERIS, under the scientific supervision of Professor Rafaela Cardoso.

**Duration:** The research fellowship(s) will have the duration of 6 months. It's expected to begin in September 2024, and may be eventually renewed up to the maximum of 10 months, including the duration of the initial contract.

**Monthly maintenance allowance:** According to the values for Research Fellowships awarded by FCT in Portugal ([https://www.fct.pt/wp-content/uploads/2024/02/Tabela-de-Valores-SMM\\_atualizacao-2024.pdf](https://www.fct.pt/wp-content/uploads/2024/02/Tabela-de-Valores-SMM_atualizacao-2024.pdf)), the amount of the monthly maintenance allowance is €1259.64, being the payment method an option of the Fellow by Wire Transfer/Check.

**Selection methods:** The selection methods will be through curricular evaluation (100%), with the respective weight: Final grade in the Master on Chemical or Environmental Engineering (20%), motivation letter (20%), knowledge on residual water chemical analysis and clays (30%), experience on laboratorial work with soils (20%), knowledge on English (10%). If an interview is carried out, in the event of a tiebreaker, the weighting will be 70% for the curriculum evaluation and 30% for the interview. If none of the candidates have the appropriate profile, the scholarship will not be awarded.

**Composition of the selection Jury:** Professors Rafaela Cardoso, Fernando Simões and Rui Carrilho Gomes

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

**Deadlines and procedures of complaint and appeal.** A complaint may be lodged from the final decision within 15 working days, or an appeal to the Executive Board of IST-ID within 30 working days, both counted from the respective notification

**Application deadline and formalization:** The call is open from July 10 until July 23, 2024.

It is mandatory to formalize applications with the submission of the following documents: i) B1 Form – Fellowship application (<https://ist-id.pt/concursos/bolsas/>); ii) *Curriculum Vitae*; iii) academic degree certificate; iv) proof of enrollment at an academic degree course (PhD); v) motivation letter.



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Applications must be submitted to the email: [rafaela.cardoso@tecnico.ulisboa.pt](mailto:rafaela.cardoso@tecnico.ulisboa.pt)



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