

(BL72/2024-IST-ID)

### Research Studentship for PhD student

Applications are open for **1** Research Studentship, within the framework of Green multi-action products for the sustainable conservation of historic porous building stones/ Centro de Química Estrutural, Associação do Instituto Superior Técnico para a Investigação e Desenvolvimento (IST-ID) (PTDC/ECI-EGC/2519/2020) financed by national funds through FCT/MCTES(PIDDAC), under the following conditions:

**Scientific Area:** Chemistry or Chemical Engineering

#### Admission Requirements:

- a) To be enrolled at a PhD;
- b) To hold a bachelor or master degree in Chemical engineering or Chemistry.

**Workplan:** The work plan encompasses activities from two distinct tasks:

Task 4: Susceptibility to Degradation of Optimized Formulations: The workplan involves studying the mineralogical and chemical changes that occur due to artificial aging in the substrates and multi-action products. Analytical techniques such as Fourier Transform Infrared Spectroscopy with Attenuated Total Reflection (FTIR-ATR), X-Ray Diffraction (XRD), and Scanning Electron Microscopy (SEM) will be employed to understand these alterations.

Task 5: Initial Efficacy and Compatibility of Multi-Action Product on Historic Porous Stone Materials: The activity focuses on the mineralogical and chemical characterization of historic movable substrates made of porous stones, both before and after the application of the multi-action product. The aim is to characterize the materials and assess the chemical compatibility of the product on historic materials.

**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 Química Estrutural (CQE)* from *Associação do Instituto Superior Técnico para a Investigação e Desenvolvimento (IST-ID)*, under the scientific supervision of Prof. Fátima Montemor and Doctor Bruno Sena da Fonseca.

**Duration:** The research fellowship will have the duration of 5 months, renewable. It's expected to begin in May 2024. The research fellowship can be renewed up to the maximum of 12 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 € 1 259,64, being the payment method an option of the Fellow by Wire Transfer/Check.

**Selection methods:** The selection methods will be the following: i) classification of previous academic degrees; ii) published papers in SCOPUS/WoS indexed journals; iii) other publications and participation in conferences; and iv) laboratory experience in analytical techniques, with the respective weight of 25%; 30%; 15% and 30%.

**Composition of the selection Jury:** Doctor Bruno Sena da Fonseca, Prof. Ana Paula Ferreira Pinto e Prof. Fátima Montemor.

**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 April 15 until April 26, 2024.

It is mandatory to formalize applications with the submission of the following documents:

B1 Form – Fellowship application (<https://ist-id.pt/concursos/bolsas/> );

- i) *Curriculum Vitae*;
- ii) Certificates of the previous academic degrees;
- iii) proof of enrollment at an academic degree course (PhD);
- iv) Motivation letter.

Applications must be submitted to the email: [bruno.fonseca@tecnico.ulisboa.pt](mailto:bruno.fonseca@tecnico.ulisboa.pt) indicating “Candidatura a Bolsa - GreenMAP” in the subject of the e-mail.