

(BL2/2022-IST-ID)

Research Studentships (for students of a course that does not award an academic degree)

Applications are open for one Research Studentship, within the framework of project **pUc-LED - Phosphor-Up-converted white LEDs assisted by 1-D photonic crystals/CQE**, of reference PTDC/CTM-CTM/0757/2021, financed by national funds through FCT/MCTES (PIDDAC), under the following conditions:

Scientific Area: Physical chemistry, Materials and NanoSciences, and related areas

Admission Requirements:

a) to hold a master degree and be enrolled at a course that does not award an academic degree and it is integrated in the educational project of a higher education institution, performed in association or cooperation with one or several R&D units;

b) not to exceed with this contract, including the possible renovations, an accumulated period of two years in this type of studentship, continuously or with interruptions.

Workplan: This fellowship involves research activities with the goal of developing LED prototype demonstrators for white light generation, through (anti-Stokes) Up-conversion (Uc) photoluminescence, excited by an external 980 nm laser diode, and assisted by photonic crystals deposited by the sol-gel technique. The Research student will become familiarized with sol-gel processing, photoluminescence spectroscopy and CIE chromaticity diagrams, among other techniques.

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) of Instituto Superior Técnico (IST), under the scientific supervision of Professor Rui Almeida.

Duration: The research fellowship will have the duration of 12 months. It's expected to begin in March 2022, not renewable.

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 € 1104,64, being the payment method an option of the Fellow by Wire Transfer/Check.

Selection methods: The selection methods will be the following: background and academic degree, relevant experience for the project (sol-gel processing and relevant characterization techniques on the topic of the project) and motivation letter, with the respective weight of 40%, 40%, 20%. An individual interview will be held in case of a tie.

Composition of the selection Jury: Professor Rui Manuel Amaral de Almeida, Professor Luís Filipe Santos, Professora Ana Clara Marques.

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 17 until 28 January 2022.

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, where applicable; iv) proof of enrollment at a course that does not award an academic degree; v) motivation letter; vi) declaration on honour that the applicant does not exceed with this contract an accumulated period of two years in this type of studentship, continuously or with interruptions.

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