

EDITAL FOR RESEARCH FELLOWSHIPS WITH RESPECT TO R&D PROJECTS AND INSTITUTIONS

Call for a Research Fellowship for a Bachelor

Applications are open for **1 Research Scholarship for a Bachelor** within the framework of project “**PORTUGAL AT ISOLDE : Materials and Nuclear Physics Research with Radioactive Isotopes and Techniques**” – PT@ISOLDE2017, CERN/FIS-PAR/0005/2017, financed by FCT/MCTES(PIDDAC), under the following conditions:

Scientific Area: Materials / Physics

Admission Requirements: License in Physics, Material's science or engineering (*). Good knowledge of English is essential.

(*) Applicants with foreign degrees shall have the degree registered or recognized/with equivalence in Portugal.

Workplan: The work concerns tasks: **T4** - Materials doping by ion beam implantation and diffusion, **T5** – Materials structural and composition characterization and **T6** - Materials research w/ radioactive techniques & analysis of the **PT@ISOLDE2017** project above mentioned. We are currently studying wide band gap materials, GaN nanowires, differently doped Ga₂O₃, and MoO₃. The work will be centered on the characterization of nanoscopic properties of these materials (to be defined at the time that the scholarship will be approved) with the use of the Time Dependent Perturbed Angular Correlations (TDPAC) technique. We particularly mention studies performed with ¹¹¹In introduced by diffusion on Ga₂O₃ and ⁹⁹Mo produced by n-activation of MoO₃ at ILL-Grenoble, to be measured at the CTN-Bobadela campus or the CTN experimental infrastructure at ISOLDE-CERN. The samples will be complementarily characterized by RBS/C, x-ray and electric properties at CTN. **Benefits to the candidate:** The candidate will be working in an international environment; the work should ideally lead to a MSc thesis and later a PhD.

Legislation and Regulations: Lei n.º 40/2004, de 18 de agosto (Estatuto do Bolseiro de Investigação Científica) (*Statute of Scientific Research Fellow, approved by Law n. 40/2004, of August 18*); Regulamento de Bolsas de Investigação da Fundação para a Ciência e a Tecnologia em vigor (*Research Fellowships Regulation of the Foundation for Science and Technology, IP, in force*) (<https://www.fct.pt/apoios/bolsas/docs/RegulamentoBolsasFCT2018.pdf>); e Regulamento de Bolsas de investigação do IST (Research Fellowships Regulation of IST).

Workplace: The work will be done at the CTN-Bobadela Campus of Instituto Superior Técnico and at the CTN-experimental infrastructure at ISOLDE-CERN. Periods and timing shall be defined during the work progress under the scientific coordination of Doctor Katharina Lorenz and Doctor João Guilherme Martins Correia.

Duration: The research fellowship(s) will have the duration of **6** months. It's expected to begin in **June 2019** and may be eventually renewed to the maximum of **12** 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 **€745**, being the payment method an option of the Fellow by Wire Transfer/Check.

Selection methods: The candidates will be graded based on **a) the curricular evaluation** (70%, 0-20 scale) considering the admission requirements, and **b) motivation letter** (30%, 0-20 scale). After ordering, if necessary, an interview may be conducted as an aid to the evaluation of the candidates (in this case, the interview has a value of 25% and the curricular evaluation 75%, scale 0-20).

Composition of the selection Jury: Dr. João Guilherme Correia (President), Dr. Katharina Lorenz (Vogal), Dr. António Pereira Gonçalves (Vogal).

Announcement/ notification of the results: The final results of the evaluation will be publicized through a list sorted by final grade obtained posted in a visible and public place of the CTN, Bobadela, Instituto Superior Técnico, University of Lisbon. All applicants will be notified **via email** of the Final Evaluation Result.

Application deadline and formalization: The call is open from 26th February until the 10th May 2019.

It is mandatory to formalize applications with the submission of the following documents: B1 Form – Fellowship application (www.ist-id.pt), *Curriculum Vitae*, *academic degree certificate(s)* and *motivation letter*. Applications must be submitted to the email: jgmcnet@ctn.tecnico.ulisboa.pt or Joao.Guilherme.Martins.Correia@tecnico.ulisboa.pt.