

## **CALL FOR APPLICATIONS**

Job:

**Job reference**: AE2019-0197 (INESC TEC LA - CAP )

INESC TEC - Instituto de Engenharia de Sistemas e Computadores, Tecnologia e Ciência

Position: Research Grants (BI)

City: Porto

Research field: Main: PHYSICS, CHEMISTRY

Sub: Chemical physics, Inorganic chemistry, Organic chemistry, Reaction mechanics and dynamics

Job summary:

INESC TEC is accepting applications to award 1 Research Grant for Degree holders .

Project: INESC TEC - UID/EEA/50014/2019

Scientific Advisor: Luís Carlos Coelho

**Duration Grant:** from 2019-10-01 to 2020-06-30 (9) eventually renewable.

Location: INESC TEC, Porto, Portugal

Job description:

Work Area: Synthesis of a sensing membrane based on chemiluminescence

**Project overview:** Development of a portable prototype combining optical sensing and chemistry membrane for biogenic amines detection in fresh food. The sensing membrane is based on chemiluminescent processes in a solid cellulose buffer which in contact with samples containing biogenic amines causes light emission at specific wavelengths. The detection system collects the light corresponding to the effective concentration of biogenic amines in the sample

**Objectives:** - Written report the state-of-the-art in optical sensors for the detection of biogenic amines. - Development and optimization of the chemical protocols of a sensing membrane fabrication. - Fabrication of working sensing membranes - Calibration of the detection system to a specific concentration range of operation.

Academic Qualifications: Physics degree or equivalent.

Minimum Profile required: -Chemical degree or equivalent.

-Knowledge in physics

-Knowledge in guided optics **Preference factors:**It is preferred a Master stude

Preference factors: It is preferred a Master student that is currently beginning its second year and in which the developed work.

Monthly Grant: €752,38 (Degree) according to the Stipends values of the grants awarded directly by the FCT, paid by bank

transfer. The grant holder may also benefit from additional incomes in the sequence of a quarterly evaluation process (Clauses 12 and 13 of INESC TEC Grants Regulation and Annex II), up to a maximum of 50% of the

monthly grant.

Project duration: -

Funding Entity: Funded by National Funds through FCT - Portuguese Foundation for Science and Technology, I.P.,in the

scope of the project UID/EEA/50014/2019

The grant contract shall be submitted to the legislation concerning the Research Grant Holder Statute, approved by Law n 40/2004, dated 18 August, amended and republished by Decree-Law No. 202/2012 of 27 August and amended by Decree-Law No. 233/2012 of 29 October and by Law No. 12/2013, of January 29, and Decree-Law No. 89/2013 of July 9 as well as by INESC TEC Grant Regulation, approved by FCT - Fundação para a Ciência e a Tecnologia (Science and Technology Foundation) in 12 January 2011 and FCT current Grant Regulation.

Additional information about INESC TEC Grants Regulation and relating annexes may be found at www.inesctec.pt/grants

Selection Criteria: Curriculum evaluation based on the criteria referred to in Clause 7 INESC TEC Grants Regulation and will include individual interviews in the final stage of the selection process, with its valuation: 70% curriculum evaluation (30% CV, 25% scientific domains and 15% Expertise) and 30% interview. Only those candidates who obtain at least 70% in the curricular evaluation (CV + Scientific Domain + Experience) will be called for the interview.

Selection Jury: President of the Jury: Prof. Luís Carlos Coelho;

Member: Prof. José Almeida; Member: Prof. Pedro Jorge;

Notification of results: The results of the selection process will be disseminated to interested parties by mail, as referred to in Clause

8 of INESC TEC Grants Regulation.

**Application period:** From 2019-08-12 to 2019-08-31

Application submission: Fill in the electronic form in the section Work with Us at www.inesctec.pt, , attaching the Curriculum Vitae,

certificate of qualifications and other supporting documents relevant to the final assessment.



