

## **CALL FOR APPLICATIONS**

Job:

**Job reference:** AE2019-0200 (SAFEWATER - CAP)

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

Position: Research Grants (BI)

City: Porto

Research field: Main: ENGINEERING, PHYSICS

Sub: Optics, Microengineering, Precision engineering, Electronics, Electrical engineering

Job summary:

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

Project: On chip whispering gallery mode optical microcavities for emerging microcontaminant determination in waters

Scientific Advisor: Pedro Jorge

**Duration Grant:** from 2019-10-01 to 2020-03-31 (6) . The grant may be renewed for additional periods up to the maximum duration

of the project or the duration of the grant for which the candidate was selected. It can also be renewed due to another project provided that it is entirely or partly related to the work area in the call and that it contributes to the

ongoing training.

**Location:** INESC TEC, Porto, Portugal

Job description:

Work Area: Optics an Optoelectronics, optical sensors

**Project overview:** The main goal of the project is to develop robust interrogation techniques to track wavelength shifts in micro resonator sensors. In particular, new approaches and configurations to test the coupling of light into the micro resonators, in the context of biosensor applications should be explored.

**Objectives:** Test and comparison of different techniques to couple light into optical microresonator based sensors. Main tasks: Design and implementation of new coupling techniques based on fiber optic and planar waveguide devices faboricated by fs laser direct writing. Test, validation and comparison of the performance of different coupling techniques. Implementation of a functional prototype with the selected coupling technique.

Academic Qualifications: MSc Physics, Physics Engineering, Telecommunications and Energy Networks Engineering or similar

**Minimum Profile required:** MSc in Physics, Electrical and Electronics engineering or similar.

Good knowledge of optics and electronics. Knowledge of laser materials processing and laser direct writing

with femtosecond laser.

**Preference factors:** Experience in laboratorial environment. Laboratorial experience in optical fibre sensors particularly long period

gratings.

Monthly Grant: €989,70 (MSC) 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:** 2018-04-03 a 2021-04-02

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

scope of the project PHOTONICS/0002/2016 .

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: 80% curriculum evaluation (35% CV, 25% scientific domains and 20% Expertise) and 20% interview.

Selection Jury: President of the Jury: Prof. Pedro Jorge;

Member: Prof. Paulo Vicente Marques; Member: Prof. Luís Carlos Coelho;

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.



