CALL FOR APPLICATIONS

Job:

Job reference:	AE2019-0354 (SolSensors - CAP)
	INESC TEC - Instituto de Engenharia de Sistemas e Computadores, Tecnologia e Ciência
Position:	Research Grants (BI)
City:	Porto
Research field:	Main: PHYSICS,ENGINEERING
	Sub: Electromagnetism,Optics,Electronics,Electronic engineering

Job summary:

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

Project:	Development of advanced fibre optic sensors to monitor the durability of concrete and reinforced concrete structures
Scientific Advisor:	Luís Carlos Coelho
Duration Grant:	from 2020-03-01 to 2021-02-28 (12) eventually renewable until the project conclusion or budget.
Location:	INESC TEC, Porto, Portugal

Job description:

Work Area: Development, characterization and installation of optical sensors in concrete structures

Project overview: Fabrication, characterization and installation of fibre optic based sensors to real time monitoring of stability and durability of small-scale models of concrete structures. These sensors based on different methodologies are coated with specific polymers, which undergo physicochemical changes that depend on the agents present in the medium. Following these changes spectral variations are detected through low-cost interrogation systems also developed in the tasks of this project.

Objectives: The fellow should be capable of: - Develop fibre optic sensors. - Design, testing and program electronic systems. - Integration of the different optoelectronic components from the measuring system with the development of control and spectra analysis software. - Install the final sensors inside concrete structures - Validation of the measurement system in a small and medium scale pilot project in civil engineering laboratories.

Academic Qualifications:	Master's degree in physics engineering or equivalent.
Minimum Profile required:	- Strong skills in optoelectronic systems. - Skills in software development of spectral analysis and control. - Microcontroller programming skills. - Practical experience. - Autonomy at work.
Preference factors:	Skills in experimental methodologies in optics. Practice in experimental work with optical fibers.
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:	2018-05-01 a 2021-04-30
Funding Entity:	Funded by FEDER through the Operational Programme for Competitiveness and Internationalisation - COMPETE 2020 Programme, and by National Funds through the FCT - Portuguese Foundation for Science and Technology, I.P., within project PTDC/ECI-EGC/31220/2017 (POCI-01-0145-FEDER-031220) .

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: 65% curriculum evaluation (30% CV, 20% 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. Rita Bacelar Figueira;
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 2019-12-09 to 2020-01-31
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.

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