

## CALL FOR APPLICATIONS

### Job:

<b>Job reference:</b>	AE2019-0195 (SolSensors - CAP)
	INESC TEC - Instituto de Engenharia de Sistemas e Computadores, Tecnologia e Ciência
<b>Position:</b>	Research Grants (BI)
<b>City:</b>	Porto
<b>Research field:</b>	Main: PHYSICS
	Sub: Optics, Electromagnetism, Applied physics

### Job summary:

<b>INESC TEC is accepting applications to award 1 Research Grant for Degree holders .</b>	
<b>Project:</b>	Development of advanced fibre optic sensors to monitor the durability of concrete and reinforced concrete structures
<b>Scientific Advisor:</b>	Luís Carlos Coelho
<b>Duration Grant:</b>	from 2019-10-01 to 2020-09-30 (12) - Eventually renewable until the project conclusion or budget.
<b>Location:</b>	INESC TEC, Porto, Portugal

### Job description:

<b>Work Area:</b>	Development of optical sensors
<b>Project overview:</b>	The tasks include the study and development of an optical sensing platform combined with specific polymers to be installed in concrete structures to monitor its Physico chemical dynamics through the detection of different targets. The optical sensors will be based on different methodologies allowing to monitor spectral variations on specific polymers when in contact with desirable targets: refractometric structures inscribed in monomode silica optical fibres; colorimetric structures
<b>Objectives:</b>	-Fabrication and characterization of sensors in standard monomode optical fibres -Coating of the different type of sensors with specific polymers previously developed. -Studies of the installation methods of the fibre sensors in concrete structures. -Monitoring of deterioration parameters of concrete structures simulated in laboratory by studying the spectral characteristics of the collected optical signals

<b>Academic Qualifications:</b>	Physics degree or equivalent.
<b>Minimum Profile required:</b>	- Knowledge in evanescent field-based sensors - Knowledge in guided optics - Knowledge in chemistry
<b>Preference factors:</b>	Knowledge in thin film coating processing, nanofabrication and high vacuum systems.
<b>Monthly Grant:</b>	€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.

<b>Project duration:</b>	2018-05-01 a 2021-04-30
<b>Funding Entity:</b>	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 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 <a href="#">INESC TEC Grants Regulation</a> and relating annexes may be found at <a href="http://www.inesctec.pt/grants">www.inesctec.pt/grants</a>	

<b>Selection Criteria:</b>	Curriculum evaluation based on the criteria referred to in Clause 7 <a href="#">INESC TEC Grants Regulation</a> 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.
<b>Selection Jury:</b>	President of the Jury: Prof. Luís Carlos Coelho; Member: Prof. José Almeida; Member: Prof. Pedro Jorge;
<b>Notification of results:</b>	The results of the selection process will be disseminated to interested parties by mail, as referred to in Clause 8 of <a href="#">INESC TEC Grants Regulation</a> .
<b>Application period:</b>	From 2019-08-12 to 2019-08-31
<b>Application submission:</b>	Fill in the electronic form in the section <a href="#">Work with Us</a> at <a href="http://www.inesctec.pt">www.inesctec.pt</a> , attaching the Curriculum Vitae, certificate of qualifications and other supporting documents relevant to the final assessment.