CALL FOR APPLICATIONS

Job:

Job reference:	AE2019-0273 (INESC TEC LA - HASLAB)
	INESC TEC - Instituto de Engenharia de Sistemas e Computadores, Tecnologia e Ciência
Position:	Scientific Initiation Grants (BIC)
City:	HASLab, Dep Informática, UMinho, Braga
Research field:	Main: COMPUTER SCIENCE
	Sub:

Job summary:

INESC TEC is accepting applications to award 1 Scientific Iniciation Grant .	
Project:	INESC TEC-UID/EEA/50014
Scientific Advisor:	Fábio André Coelho
Duration Grant:	from 2020-01-01 to 2020-03-31 (3) eventually renewable.
Location:	HASLab, Dep Informática, UMinho, Braga

Job description:

Work Area: Distributed Systems / Applications Engineering

Project overview: This grant addresses challenges within research in distributed database engines. Namely, it is focuses in the challenge brought by the increasing number of available tunable criteria in the configuration of the database engine. This grant aims at bringing machine learning techniques, namely reinforcement learning as the core for an auto-tune middleware for database engines.

Objectives: - State of the art on the internals from databases and their configurations; - Design on how to apply reinforcement learning techniques to achieve adaptative configuration; - Prototype development if a distributed middleware;

Academic Qualifications:	Students enrolled for the 1st time in 1st cycle of higher education or in a master's degree.
Minimum Profile required:	- Student master in Informatic Engineering
	- Experience with PostGreSQL,
	- Solid knowledge on distributed systems;
	- Solid knowledge on JAVA programming;
Preference factors:	- Knowledge on using reinforcement learning techniques; - Experiennce with benchmarking systems, namely TPC-C; - Experience with WEB development;
Monthly Grant:	€388,81 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

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: 90% curriculum evaluation (50% CV, 20% scientific domains and 20% Expertise) and 10% 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. Fábio André Coelho;
	Member: Prof. João Tiago Paulo;
	Member: Prof. José Orlando Pereira;
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 2019-11-20 to 2019-12-03
Application submission:	Fill in the electronic form in the section Work with Us at www.inesctec.pt, , attaching the Curriculum Vitae, copy of school enrollment and other supporting documents relevant to the final assessment.