CALL FOR APPLICATIONS

Job:

Job reference:	AE2016-0140 (INFUSE - CPES)
	INESC TEC - Instituto de Engenharia de Sistemas e Computadores, Tecnologia e Ciência
Position:	Research Grants (BI)
City:	Porto
Research field:	Main: ENGINEERING,MATHEMATICS
	Sub: Electrical engineering,Applied mathematics,Electronic engineering

Job summary:

INESC TEC is accepting applications to award 2 Research Grant for MSC.	
Project:	INFUSE - Fusão sensorial em estimação de estado sob arquiteturas clássicas e distribuídas
Scientific Advisor:	Vladimiro Miranda
Duration Grant:	from 2017-01-16 to 2018-01-15 (12) - Eventually renewable until the project conclusion or budget.
Location:	INESC TEC, Porto, Portugal

Job description:

Work Area: Applied Mathematics/Power Systems/Computing

Project overview: This is an exciting project that explores innovative ideas, coupling classic Power System models with Information Theoretic Learning, Signal Processing and Computational Intelligence. It has great potential to generate scientific advancements, publications in journals, innovative prototypes and products for the industry. The object of the work is the exploration of a paradigms and architectures for state estimation with multiple sensor types, in several hierarchical layers and with distributed estimation capability, adopting also concepts of sensor fusion borrowed from robotics. Specific problems of gross error and missing signal handling in Power System state estimation are also to be handled. There is a focus on complex distribution systems with dispersed generation, micro-grids and smart grids.

Objectives: Development of new models and software applications to be inserted in simulation tools and real world power system problem testing. Comparison between the classical algorithms and the new paradigm. Extensive software development envisaging the coupling of the new algorithms with a full DMS platform, including the possibility of testing with real network data. Writing of scientific papers.

Academic Qualifications:	Master Degree in Electrical Engineering/Power Systems/Robotics or Applied Mathematics or Applied Physics or speciality considered compatible and eligible by the selection jury, namely from third countries.
Minimum Profile required:	Fluent in English (spoken and written), and knowledge in programming languages such as C/C++.
Preference factors:	Skills in applied mathematics and in programming environments; skills in Power Systems analysis tools. Past experience in power system state estimation. Past experience in sensor fusion.
Monthly Grant:	€980,00 (MSC) according to the Stipends values of the grants awarded directly by the FCT, paid by bank transfer. The grant holder can receive additional payments by participating in complementary contracts or projects that contribute to the work plan (Clauses 12 and 13 of INESC TEC Grants Regulation and Annex II), in accordance with paragraph 4 of article 5 of Research Grant Holder Statute, approved by Law nº 40/2004, dated 18 August, up to a maximum of 50% of the monthly grant.

Project duration: 2016-04-01 a 2019-03-31

Funding Entity: FCT (PTDC/EEI-EEL/5949/2014 (POCI-01-0145-FEDER-016731))

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: Applicant selection will be made according to the criteria defined in Clause 7 of INESC Porto Grant Regulation. Criteria:60% in CV assessment (30% resume, 20% scientific domains, 10% experience) and 40% in individual interview.

The candidates will be ordered based on the CV assessment, in a first phase. The best 3 candidates in the CV evaluation, will move to a second phase where an individual interview will ensue. In case of equivalence in the merit assessment, preference will be given to: a) candidates coming from the Universities belonging to the network Rede INESC Brasil; b) candidates from countries belonging to CPLP. Also, in case of equivalence in the merit assessment, de admission of candidates will favour a policy of gender equilibrium.

Selection Jury:	President of the Jury: Prof. Vladimiro Miranda;
	Permanent Member: Prof. Manuel Matos;
	Substitute Member: Prof. Ricardo Jorge Bessa;
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 2016-12-21 to 2017-01-03
Application submission:	Fill in the electronic form in the section Work with Us at www.inesctec.pt

Governo da República Portuguesa

FCT
Fundação para a Ciência e a Tecnologia
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