

CALL FOR APPLICATIONS

Job:

Job reference:	AE2019-0315 (InterConnect - CPES) INESC TEC - Instituto de Engenharia de Sistemas e Computadores, Tecnologia e Ciência
Position:	Research Grants (BI)
City:	Porto
Research field:	Main: ENGINEERING Sub: Electrical engineering

Job summary:

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

Project:	Interoperable Solutions Connecting Smart Homes, Buildings and Grids
Scientific Advisor:	David Emanuel Rua
Duration Grant:	from 2019-12-13 to 2020-12-12 (12) eventually renewable until the project conclusion or budget.
Location:	INESC TEC, Porto, Portugal

Job description:

Work Area: Electric power systems

Project overview: The objective is to develop software modules for managing and optimizing the energy use in residential and tertiary buildings. Support data acquisition from different sources handled through standardized interfaces and represented through relevant ontologies to ensure interoperability between systems and their availability in modular graphical interfaces (ex.: dashboards). Tests will be carried out in local and in cloud systems for the programmed modules. Appropriate documentation is expected to be produced.

Objectives: Identification of communication architectures Definition of appropriate ontologies for monitoring and control data exchange in buildings Programming algorithms for machine learning and optimization in both embedded and cloud systems Creation of dashboards and modular data representations Implement compliance and acceptance testing

Academic Qualifications:	Degree in Electrical Engineering, Informatics, Computer Science or similar
Minimum Profile required:	Knowledge in programming (ex: c/c++, python); Knowledge in embedded systems (ex. arduino, raspberry pi, etc.); Knowledge in databases and dashboard solutions (ex: SQL, MongoDB, Cassandra, etc.).
Preference factors:	Experience in graphical interfaces and dashboards Knowledge in operating systems: Linux and Windows Use and programming of servers Fluency in English and Portuguese (spoken and written)
Monthly Grant:	€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.

Project duration: 2019-10-01 a 2023-09-30

Funding Entity: CE

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 (40% CV, 30% scientific domains and 20% Expertise) and 10% interview.

Selection Jury: President of the Jury: Prof. David Emanuel Rua;
Member: Prof. Ricardo Jorge Bessa;
Member: Prof. Jorge Correia 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 2019-11-18 to 2019-11-29

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.