

## **CALL FOR APPLICATIONS**

Job:

Job reference: AE2019-0157 (LASTMILE - CEGI)

INESC TEC - Instituto de Engenharia de Sistemas e Computadores, Tecnologia e Ciência

Position: Research Grants (BI)

City: Porto

Main: ENGINEERING, COMPUTER SCIENCE, MATHEMATICS Research field:

Sub: Modelling tools

Job summary:

INESC TEC is accepting applications to award 1 Research Grant for MSC . Project: Rethinking last-mile delivery through crowdsourcing

Scientific Advisor: João Pedro Pedroso

from 2019-09-01 to 2020-02-29 (6) - Eventually renewable until the project conclusion or budget. **Duration Grant:** 

Location: INESC TEC, Porto, Portugal

Job description:

Work Area: Modeling, simulation and optimization

Project overview: This project deals with the concept of inviting in-store customers for delivering parcels ordered by on-line customers; the remaining orders should be delivered by a professional fleet. The aim is to develop models and tools for solving this problem, which turns out to be a very challenging stochastic combinatorial optimization problem. This approach will reduce environmental impacts and urban congestion at low marginal cost. More information in: http://www.dcc.fc.up.pt/~jpp/Announcements/LastMile.html

Objectives: Development of models tackling this problem. These will involve algorithms in the interface between machine learning/artificial intelligence and combinatorial optimization.

**Academic Qualifications:** MSc in computer science, operational research or related areas.

Minimum Profile required: Good programming skills.

Preference factors: 1. Experience with simulation and optimization problems; 2. Implementation of software for optimization and/or

machine learning.

**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: 2018-07-26 a 2021-07-25

**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 POCI-01-0145-FEDER-028611.

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: 85% curriculum evaluation (50% CV, 20% scientific domains and 15% Expertise) and 15% 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. João Pedro Pedroso;

> Member: Prof. Ana Viana; Member: Prof. Xenia Klimentova;

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 2019-07-15 to 2019-07-29

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.







