

## **CALL FOR APPLICATIONS**

Job:

Job reference: AE2019-0329 ( UP4Legacy - CESE)

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

Position: Investigação (BI)

City: Porto

Research field: Main: ENGINEERING

Sub: Industrial engineering

Job summary:

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

Project: Solutions to transform legacy metal working machines into modern cyber-physical systems

Scientific Advisor: Hugo Miguel Ferreira

**Duration Grant:** from 2020-01-01 to 2020-12-31 (12) eventually renewable until the project conclusion or budget.

Location: INESC TEC, Porto, Portugal

Job description:

Work Area: Data mining and Machine learning

**Project overview:** The work is developed within the UP4Legacy project whose aim is to retrofit existing manufacturing machines with sensors and data acquisition equipment. This data will then be used to implement and test failure detection and prediction models. The results will be evaluated and demonstrated with a prototype.

Objectives: Specify, develop, test, integrate and document the production machinery failure detection and prediction models. The

implementation will be done using machine learning libraries in Java, Scala. Python, R and/or MATLAB.

Academic Qualifications: Masters in Electronic engineering, computers science or equivalent area.

Minimum Profile required: Experience in software development, machine learning, data mining tools and machine and plotting libraries

(Java, Python. R ou MATLAB), Fluency in English.

Preference factors: Functional programming (Scala). Experience working in projects in teams and in R&D projects. Professional

experience in the manufacturing industry.

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:** 2020-01-01 a 2020-12-31

Funding Entity: EIT

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: 70% curriculum evaluation (30% CV, 25% scientific domains and 15% Expertise) and 30% interview.

Selection Jury: President of the Jury: Prof. Jorge Pinho de Sousa;

Member: Prof. Hugo Miguel Ferreira; Member: Prof. António Lucas Soares;

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 2019-11-26 to 2019-12-09

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.