

CALL FOR APPLICATIONS

Job:

Job reference: AE2017-0163 (AGRISENSUS-1 - CAP)

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

Position: Research Grants (BI)

City: Porto

Research field: Main: CHEMISTRY

Sub: Analytical chemistry

Job summary:

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

Project: Integrated monitoring and control of water, nutrients and plant protection products towards a sustainable agricultural

sector

Scientific Advisor: Pedro Jorge

Duration Grant: from 2017-08-01 to 2018-07-31 (12) - Eventually renewable until the project conclusion or budget.

Location: INESC TEC, Porto, Portugal

Job description:

Work Area: Optic, Potentiometric and Chemical sensors, Spectroscopy, Potentiometry.

Project overview: The AGRISENSUS project aims to develop sensors for application in agricultural operations, within nutritional monitorization and fertirrigation systems. The design, test and implementation of chemical, optical and potentiometric sensors for quantification of chemical and biochemical species of interest in fertirrigation, will be carried out. The tasks to be performed include the specification, development and validation of sensors for nitrate, phosphate and potassium determination using multiple sensors.

Objectives: Chemical, optical and electrochemical sensor preparation. Multiple sensor experimental setup and validation Sensor characterization: specificity, repeatability, cross-sensitivity. Statistical analysis using the R statistical package. Analysis and characterization of the multivariate sensor response.

Academic Qualifications: Degree in Chemistry, Biochemistry or Pharmacy.

Minimum Profile required: Experience in the related areas. Experience in synthesis. Experience in spectroscopic and photonic analysis.

Preference factors: Experience in chemical analysis and chemical synthesis. Experience in absorption and emission

spectroscopy. Experience in optical fibre sensor validation. Experience in R statistical package.

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:
 2017-04-01 a 2020-03-31

 Funding Entity:
 FCT (WaterJPI/001/2015)

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 7º INESC TEC Grants Regulation and will include individual interviews in the final stage of the selection process, with its valuation: 80% curriculum evaluation (35% CV, 25% scientific domains and 20% Expertise) and 20% interview.

Selection Jury: President of the Jury: Prof. Pedro Jorge;

Permanent Member: Prof. Paulo Vicente Marques;

Substitute Member: Prof. Gerardo Aguilar;

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 2017-06-27 to 2017-07-11

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.



