

CALL FOR APPLICATIONS: RESEARCHER

Job/position/grant:

Job reference:	AE2023-0410 (PhenoBot-LA8.1 - CRIIS) INESC TEC - Instituto de Engenharia de Sistemas e Computadores, Tecnologia e Ciência
Job/position/grant:	RESEARCHER
City:	Porto
Research field:	Main: ENGINEERING Sub: Electrical engineering

Job summary:

INESC TEC is accepting applications for 1 RESEARCHER job in the Intelligent Spectroscopy	
Project:	PhenoBot Fotónica Inteligente para Fenotipagem de Culturas Agro-Alimentares - LA 8.1 Agricultura de Precisão
Scientific Advisor:	Rui Costa Martins
Duration of the contract:	from 2023-12-01 to 2024-11-30, eventually renewable.
Location:	INESC TEC, Porto, Portugal

Job description:

Work Area: Intelligent Spectroscopy
Project overview: The Phenobot project aims to improve non-invasive spectroscopy technology in plants - quantification of metabolism. Core tasks focus on: i. improvements to prototypes; ii. Spectral processing and artificial intelligence for metabolite quantification; iii. study and design new sensors based on concepts of intelligent spectroscopy and specificity; iv. Omic mapping; geo-referenced; v. Molecular phenotyping using bioinformatics and systems biology.
Objectives: - Spectral processing benchmark; - Development (hardware, firmware and systems); - Reagent-free chemosensor systems - molecular quantification and diagnosis; - Inferential phenotyping - bioinformatics and Systems Biology; - Testing and validation, publication of results.
Experience in developing point-of-measurement spectroscopy systems, chemo/biosensors using reagentless spectroscopy

Academic Qualifications:	PhD in Chemo/Biosensing, Bio/Chemo-Eng, Electrical Eng., Agricultural Eng, and/or similar
Minimum profile required:	Point-of-measurement spectroscopy systems, and chemo/biosensors Chemometrics/Artificial Intelligence (Spectroscopy) Programming and data analysis (R/Python, C/C++)
Preference factors:	Laboratory and field experience; Spectral information processing capacity; CAD design, electronics and system Bioinformatics/Systems Biology and Experiment Design

Funding Entity:	PhenoBot-LA8.1 funded by IFAP with reference PRR-C05-i03-I-000134-LA8.1 Co-financed by Component 5 - Capitalization and Business Innovation, integrated in the Resilience Dimension of the Recovery and Resilience Plan within the scope of the Recovery and Resilience Mechanism (MRR) of the European Union (EU), framed in the Next Generation EU, for the period 2021 - 2026.
Type of contract:	fixed-term contract The hiring shall be governed by what is stipulated in the legislation in force regarding fixed-term employment contracts and by INESC TEC norms.

Selection criteria:	The selection of the candidates will be based on the following criteria, in descending order of consideration: a) Relevant Curriculum in the concerned field of this tender b) Proven experience.
Selection Jury:	President of the Jury: Rui Costa Martins; Member: Filipe Neves Santos; Member: José Boaventura;
Notification of results:	The results of the selection process will be sent to the interested by electronic mail.
Application period:	From 2023-10-23 to 2023-11-06
Application submission:	Electronic form filling in www.inesctec.pt in the section Work with Us