CALL FOR APPLICATIONS: RESEARCHER

Job/position/grant:

Job reference:	AE2025-0470 (CRAS-Geral - CRAS)
	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 Robotics, autonomous systems	
Scientific Advisor:	André Dias
Start Date:	2025-11-14
Location:	INESC TEC, Porto, Portugal

Job description:

Work Area: Robotics, autonomous systems

Project overview: - Conduct a requirements assessment for the development of a VTOL for infrastructure surveillance and inspection operations. - Develop deep learning algorithms for cetacean identification; - Explore 3D reconstruction techniques for critical structures. - Implement the algorithms in the ROS framework. - Conduct preliminary flight tests with the developed VTOL; - Exercise critical thinking when evaluating the research process and the results obtained.

Objectives: To integrate autonomous aerial vehicles as a solution for maritime monitoring and surveillance operations of marine life and critical infrastructure. The developed autonomous vehicle will be equipped with a wireless communication unit for extracting data from remote environmental monitoring systems, a visible spectrum and thermographic vision system, and a computing unit for recording and processing onboard the UAV for detecting and geolocating vessels and marine life (cetaceans).

Academic Qualifications:	Master's degree in electrical engineering, computer science, bioengineering or related field.
Minimum profile required:	Master's Degree in Electrical Engineering.
Preference factors:	- Over 3 years of experience in autonomous aerial vehicle development, conceptualization, and design; - Robot operating system: ROS/ROS2, PX4, LiDAR, Stereo and Monocular vision, Perception, AI, ML, Path Planning Control, Sensor Fusion Algorithms - Prior experience in Deep Reinforcement Learning for UAVs; - Prior experience in LiDAR and visible spectrum camera acquisition and processing; - Prior experience with AutoPilot for UAVs/UAS; - Prior experience in 3D modeling using Solidworks and Fusion; - Real-Time Operating Systems: FreeRTOS

Funding Entity:	
Type of contract:	Uncertain term contract

The hiring shall be governed by what is stipulated in the legislation in force regarding uncertain 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.
Disability Incentive:	Candidates who present a degree of disability equal to or greater than 90% will benefit from an incentive (20) in the score of the CV Assessment. Candidates who present a degree of disability equal to or greater than 60% and less than 90% will also benefit from an incentive (10) in the score of the CV Assessment. Said score may, in these cases, exceed 100 points. Candidates must demonstrate the degree of disability during the application, namely through the submission of the Multi-Purpose Medical Certificate of Disability, issued in accordance with Decree-Law no. 202/96, of October 23 - currently in effect. Candidates must declare, in the application form, the type of disability used throughout the selection process, in order to proceed with the required adaptations.

Selection Jury:	President of the Jury: André Dias; Member: Hugo Miguel Silva; Member: Diana Viegas;
Notification of results:	The results of the selection process will be sent to the interested by electronic mail.
Application period:	From 2025-10-16 to 2025-10-29
Application submission:	Electronic form filling in www.inesctec.pt in the section Work with Us