Position Offered: POSTDOCTORAL RESEARCHER
Project: *High-throughput phenotyping from unmanned aerial vehicles in forestry research*

Technological and scientific fields: Massive data and information processing technologies; Advanced techniques in earth and ocean observation; Remote sensing

Location: Pontevedra, Galicia, MBG-CSIC, www.mbg.csic.es

Research Group/PI: Genética y Ecología Forestal / Rafael Zas (www.genecolpines.weebly.com). Plataform PTI Horizonte verde, www.pti-horizonteverde.csic.es.

PROJECT SUMMARY

The main objective of this project is the specialised training of a PhD in the post-processing of RGB, multispectral, hyperspectral and thermal imagery and LiDAR data to infer phenotypic characteristics of interest in trees and forest stands. In particular, the aim is to apply innovative techniques to systematise efficient and flexible post-processing tools to facilitate the assessment of genetic variation, plasticity and variation in plasticity related to the adaptive capacity of genetic material. This project proposes a transversal line of work with potential impact on a large number of CSIC research groups and centres and their national and international collaborators.

PROFESSIONAL PROFILE

Minimum requirements:

- Doctorate in forestry, environmental science or similar
- Bachelor's and Master's degrees in forestry, environmental sciences or biology
- Good knowledge of English and Spanish
- Experience in aerial image processing
- Scientific publications in the proposed research area
- Knowledge of QGIS

Merits to be considered:

- Knowledge of forest remote sensing
- Experience in field work, preferably forest genetic experiments
- Drone pilot licence A1/A3
- Good communication skills
- Knowledge of R or other statistical analysis software

WHAT IS OFFERED

The proposal falls directly into the areas of Massive Data and Information Processing Technologies and Advanced Remote Sensing Techniques, although it is also related to the areas of High Performance Computing, Advanced Data Analytics / Edge Computing, Climate Change and Biodiversity, Image Analysis and Computer Vision. The project foresees a close collaboration with other research centres (iCIFOR-CSIC-INIA, IRNAS-CSIC, UdL, CETEMAS). The proposal foresees the implementation of an intensive and continuous training activity in digital competences for a total of 240 ETCS. In addition, four research stays are contemplated, 3 in the national territory and at least one in international research centres.

Contract conditions:

Indefinite contract for a Postdoctoral Researcher associated to the Momentum Project of 4 years' duration according to Spanish science law. Gross annual salary (41.000 € - 52.000 €).

Start of contract: before 31 December 2024

PRINCIPAL INVESTIGATOR CONTACT

Email: rzas@mbg.csic.es

Phone: +34 986 854800

momentum@csic.es | https://momentum.csic.es/