

# Position Offered: PREDOCTORAL RESEARCHER

## Project: *Multi-scale integration of proximal and remote sensing data for the efficient implementation of artificial intelligence algorithms in environmental applications*

**Technological and scientific fields:** Remote sensing, multiscale integration, artificial intelligence

**Location:** Madrid, Comunidad de Madrid, Institute of Economics, Geography, and Demography

**Research Group/PI:** Environmental Remote Sensing and Spectroscopy Laboratory (SpecLab, <https://speclab.csic.es>) / Javier Pacheco-Labrador and M. Pilar Martín

### PROJECT SUMMARY

The Ph.D. candidate will develop new approaches to integrate multi-scale proximal and remote sensing data that enable, improve, or optimize the application of artificial intelligence algorithms in the context of environmental applications and vegetation monitoring. The candidate will integrate into SpecLab, a reference laboratory in the context of proximal sensing and the acquisition and analysis of multi-scale spectral data, and will closely collaborate with members of the CSIC's interdisciplinary thematic network TELEDETECT (<https://pti-teledetect.csic.es>). The candidate will follow a tailored training program to acquire the scientific and technological skills necessary to achieve these aims, perform research stays in national and international laboratories, and develop open-source applications to facilitate the use and maximize the impact of his/her research.

### PROFESSIONAL PROFILE

#### Minimum requirements:

The candidate should feature

- Bachelor or engineering degree in computing science or natural/environmental sciences
- M.Sc. in geographical information technologies, remote sensing, or similar
- Proficiency in written and spoken English
- Basic programming skills

#### Merits to be considered:

We will also value

- Research experience
- Publications
- Application development experience
- Knowledge on statistics, geostatistics, or database management

### WHAT IS OFFERED

This position offers the candidate specialization in transversal topics to remote sensing: multiscale data integration, and artificial intelligence, which will maximize future opportunities in the academy and industry. The project will take place in a reference laboratory specialized in remote sensing and field and laboratory spectroradiometry, where the candidate will be able to diversify and enlarge his/her CV. The interactions with national networks and a research stay at an international research institute of excellence will provide an above-average number of scientific connections. The tailored research program (240 ECTS) will be reviewed and agreed upon with the supervisors to identify gaps and avoid unnecessary efforts where knowledge already exists. The results will be useful for the remote sensing community and the TELEDETECT network, which will maximize the impact and visibility of the candidate.

#### Contract conditions:

Predoctoral Researcher contract of 4 years' duration. Gross annual salary of 23,871.33 €.

**Start of contract: before 31 December 2024**

### PRINCIPAL INVESTIGATOR CONTACT

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## ADDITIONAL REQUIREMENTS FOR CSIC Ph.D. PROGRAMS

- 1. Qualifications:** Hold or be in the process of obtaining a Bachelor's, Engineer's, Architect's, or Bachelor's degree with at least 300 ECTS credits or a Master's degree or equivalent.
- 2. Grade Point Average:** An average academic score  $\geq 6.5$  over 10.
- 3. Doctoral program:** It is also necessary to be admitted or in the process of being admitted to a doctoral program. At the time of formalizing the contract, documentation accrediting admission to a doctoral program must be provided.
- 4. Studies abroad:** Applicants with qualifications obtained abroad must be in possession of the corresponding accreditation certificate or, where appropriate, the corresponding certificate of equivalence.
- 5. Former Ph.D. contracts.** It is requested not having been previously contracted in this type of pre-doctoral contract, in this or any other entity, for a period of more than four years, except in the case of people with disabilities, in which the contract period may not exceed six years.

## CONTACT US TO SIGN UP IN CSIC's *BOLSA DE TRABAJO*

The selection process will take place through the CSIC's *Bolsa de Trabajo* application.

**IMPORTANT: Contact us ([javier.pacheco@csic.es](mailto:javier.pacheco@csic.es)) before signing up!!!** We need to provide you with specific details for your application to be selected as a candidate for this position. Any mistake would require repeating the process, which might become effective too late.

The candidates must **sign up and complete the registration BEFORE the 15<sup>th</sup> of September 2024!! Start the process early!!** You might need to gather unexpected documents and information.