

Position Offered: UNIVERSITY GRADUATE

Project: *Innovative digital tools for efficient control of invasive weeds (DigitalWeeds)*

Technological and scientific fields: Remote Sensing, Artificial Intelligence, Image analysis and computer vision; Digital tools for agriculture; Software development; Advanced data analytics/edge computing

Location: Madrid, Community of Madrid, INIA-CSIC, <https://www.inia.es>

Research Group/PI: Sustainable Agriculture and Soil Ecology; Ana I. de Castro Megías; <https://n9.cl/io1ksc>

PROJECT SUMMARY

DigitalWeeds aims to develop digital tools based on remote sensing technologies (drone and mobile device images), state-of-the-art Artificial Intelligence (AI) algorithms and mobile applications for the optimal management of the invasive weed *Amaranthus palmeri* in crops. These tools will allow establishing prevention and eradication measures to control *A. palmeri* in agricultural scenarios contributing to reduce the use of herbicides, preserve biodiversity and improve farm profitability. DigitalWeeds will enhance scientific-technical knowledge in several research areas, such as AI, Geographic Information Systems (GIS), process automation, software development, Precision Agriculture and Plant Health.

PROFESSIONAL PROFILE

Minimum requirements:

- Academic qualifications required: Mechatronics, Agricultural, Forestry, Industrial, Geodesy and Cartography, Industrial Electronics and Automation Engineering, or similar ones.
- Advanced level of Spanish and English

Merits to be considered:

- Experience in operating drones (e.g.: piloting, sensorization)
- Expertise in image analysis for weed detection
- Knowledge in precision agriculture
- Expertise in artificial intelligence
- Knowledge in mobile application development
- Scientific research experience
- Experience in Geographic Information Systems

WHAT IS OFFERED

This position will enhance the digital skills of the hired person by contributing to their training in developing tools for the digitization of agriculture. The position has a full training plan of 80 ECTS, consisting of: three Training Stays in national and international centers of recognized prestige in AI, remote sensing, GIS, and application development (University of Cordoba-Spain, Institut Agro Montpellier-France and Center of Applied Artificial Intelligence for Sustainable Agriculture - South Carolina State University-USA); masters and specialization courses in AI, GIS, remote sensing and application design, among others.

Contract conditions:

Indefinite contract for a University Graduate associated with the Momentum Project of 4 years' duration according to Spanish science law. Gross annual salary (37.000 € - 41.000 €).

Start of contract: before 31 December 2024

PRINCIPAL INVESTIGATOR CONTACT

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