Position Offered: POSTDOCTORAL RESEARCHER
Project: *Artificial Intelligence approaches for a Sustainable Ocean (AIDOS)*

Technological and scientific fields: Data analysis and integration; artificial intelligence; big data and information processing technologies; climate change and biodiversity.

Location: Puerto Real (Cádiz), Andalucía, Instituto de Ciencias Marinas de Andalucía (www.icman.csic.es)

Research Group/PI: Ecosystems Oceanography (https://pti-oceans.csic.es/)/ I. Emma Huertas

PROJECT SUMMARY

Advances in marine technology are enabling the collection of Big Data (BD) from the ocean. Recent developments in Artificial Intelligence (AI), particularly in Machine Learning (ML) algorithms and modeling, allow efficient treatment of BD. This project aims at generating new approaches to process marine BD through advanced technologies and assimilation into ML techniques to assess the dual role of the ocean in the climate system, as a mitigator through the absortion of heat and CO2 and as receptor (warming, acidification). The main goal of AIDOS is to provide management tools to assist the decision-making process in support of European directives, within the framework of activities carried out by the PTI OCEANS+.

PROFESSIONAL PROFILE

Minimum requirements:

- Academic qualifications: PhD in Science, Master's in Oceanography and Bachelor's in Marine Sciences
- Diving certification 3 stars level.
- Advanced Python knowledge certification.
- Advanced English language knowledge certification.

Merits to be considered:

- Experience in generation, analysis and processing of time series of biogeochemical variables.
- Demonstrated experience in oceanographic instrumentation for acquisition of biogeochemical data involved in the marine carbon cycle (pH, carbon dioxide, dissolved oxygen).
- Experience in models and machine learning techniques and Python programming skills.
- Participation in oceanographic campaigns carried out in different marine environments.
- Authorship in peer-review publications on marine biogeochemistry.
- Proven skills on leadership, management and coordination of scientific projects.

WHAT IS OFFERED

The AIDOS project will advance the candidate's professional career through interaction with researches from the PTI OCEANS+ who are experts on assessing the role of the ocean in climate change mitigation and the subsequent impact on marine ecosystems (warming, acidification, etc.). In addition, the candidate will have access to facilities and infrastructures of two CSIC marine centers, ICMAN and ICM. The candidate's training plan includes 299 ECTS: 122 ECTS in activities to be included in a scientific report; 54 ECTS for training stays; 95 ECTS for training in digital skills; and 28 ECTS for complementary training.

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: Emma.huertas@csic.es / Phone: +34856031254