

## TWO job positions offered to work in the European project: “Reducing the impact of underwater noise on the marine environment of the Port of Cartagena”

**We are seeking two graduate or master degree students to be hired for the European LIFE PortSounds project.**

### **Position 1: Passive acoustic Monitoring specialist**

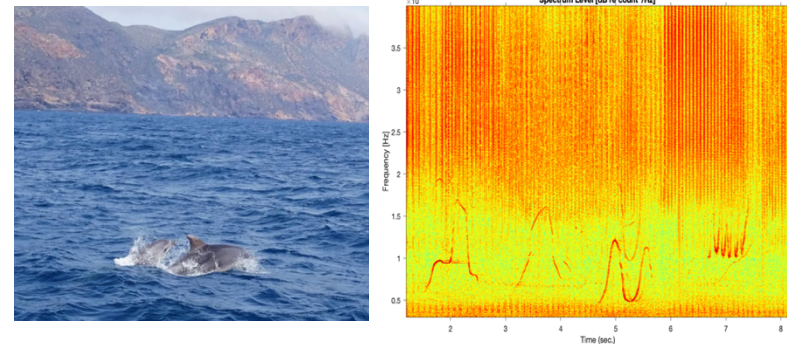
- **Location:** Institute of Telecommunications and Multimedia applications - iTEAM, Universitat Politècnica de València (UPV), Spain
- **Research Group/ Responsible:** Signal Processing Group  
Ramón Miralles Ricós – [rmiralle@dcom.upv.es](mailto:rmiralle@dcom.upv.es))

### **Position 2: Biologist.**

- **Location:** Research Institute for Integrated Management of Coastal Areas, Universitat Politècnica de València (UPV), Gandía, Spain
- **Research Group/ Responsible:**  
Eduardo Jorge Belda Perez – [ebelda@dca.upv.es](mailto:ebelda@dca.upv.es)

### **Summary of the positions and the project:**

The two persons will join our interdisciplinary team composed by members of the UPV and the Spanish Institute of Oceanography (IEO) during the work done in the LIFE PortSounds project. The main objective of the LIFE PortSounds is to reduce the impact of underwater noise on the marine environment of the Port of Cartagena (Murcia, Spain). To achieve this aim, the project has the following specific objectives: Identification and characterisation of underwater noise sources; Mapping and assessment of the influence of marine traffic; Mapping and assessment of the impact of underwater noise on biodiversity by monitoring the abundance, distribution and physiological state of three cetacean species bottlenose dolphin (*Tursiops truncatus*), striped dolphin (*Stenella coeruleoalba*) and long-finned pilot whale (*Globicephala melas*); Development and implementation of noise mitigation measures; Development of a noise management tool; and Creation of governance mechanisms to agree and assess the mitigation measures needed to prevent the impact of underwater noise in marine ecosystems.



### **POSITION 1: Passive acoustic Monitoring and Machine Learning specialist**

- **Location:** Institute of Telecommunications and Multimedia applications (iTEAM), Universitat Politecnica de Valencia (UPV), Spain
- **Research Group/ Responsible:** ITEAM - Signal Processing Group (Ramón Miralles Ricós)
- **Expected starting date:** 26 of April 2022.
- **Description:** Full time (37.5 h/week) until the end of the project (31/12/2025)

### **Duties:**

- Assisting in the preparation and execution of the Passive Acoustic Monitoring (PAM) deployments of the project.
- Traveling and helping in the PAM deployments.
- Attendance to the project meetings.
- Programming machine learning algorithms for acoustic recognition of the target cetacean species.
- Analysis of the recordings using the different machine learning algorithms and manual annotations.
- Obtaining statistics of the vocalizations of the different species and helping to estimate the abundance and density of the species.
- Storage and management of project data in the group's database.
- Preparation of reports, publications and deliverables associated with the results of actions B2 and C1.2.
- And in general, all the tasks related to the aforementioned actions in which the UPV participates in the project.

### **Required Qualifications:**

- Academic degree: Ingeniero de Telecomunicación, Ingeniero Informático, Ingeniería Física, or foreign studies recognized in Spain as these academic degrees.
- Knowledge of community languages

### **Desired qualifications:**

- Proven professional experience in jobs with functions like the one offered.
- Experience with machine learning
- Knowledge of information theory and statistics
- Be competent in the following areas:
  - Analyzing and interpreting large datasets
  - Ability to construct complex programs in languages used for scientific programming (Matlab or Python)
- Critical thinking and writing skills.

**Application for Position 1:** Applicants should contact by email with Ramón Miralles ([rmiralles@com.upv.es](mailto:rmiralles@com.upv.es)) with a short curriculum vitae. We will answer all emails giving details on the dates and the procedure to apply for the positions.

## **POSITION 2: Biologist**

- **Location:** Research Institute for Integrated Management of Coastal Areas, Universitat Politècnica de Valencia (UPV), Gandia, Spain
- **Research Group/ Responsible:** IGIC - Eduardo Jorge Belda Perez
- **Expected starting date:** 26 of April 2022.
- **Description:** Full time (37.5 h/week) until the end of the project (31/12/2025)

## **Duties:**

- Assisting in the preparation and execution of the Passive Acoustic Monitoring (PAM) deployments of the project.
- Traveling and helping in the PAM deployments.
- Attendance to the project meetings.
- Census campaign design to estimate the abundance and status of cetacean populations.
- Abundance estimation of marine vertebrate populations from distance-based census data
- Taking biological samples from cetaceans to study their physiological status
- Analysis of biological samples to assess physiological status and genetic studies
- Analysis of the recordings using the different machine learning algorithms and manual annotations.
- Obtaining statistics of the vocalizations of the different species and helping to estimate the abundance and density of the species.
- Storage and management of project data in the group's database.
- Preparation of reports, publications and deliverables associated with the results of actions B2 and C1.2.
- And in general, all the tasks related to the aforementioned actions in which the UPV participates in the project.

## **Required Qualifications:**

- Academic degree: Biología, Ciencias Ambientales, Ciencias del Mar, Grado en Bioquímica, or foreign studies recognized in Spain as these academic degrees.
- Knowledge of community languages

## **Desired qualifications:**

- Proven professional experience in jobs with functions like the one offered.
- Knowledge of bioacoustics.
- Be competent in the following areas:
  - Analyzing and interpreting large datasets
  - Ability to work with statistics analysis packages.
- Critical thinking and writing skills.

**Application for Position 2:** Applicants should contact by email with Eduardo Belda ([ebelda@dca.upv.es](mailto:ebelda@dca.upv.es)) with a short curriculum vitae. We will answer all emails giving details on the dates and the procedure to apply for the positions