



# Marine Renewable Technologies: Present and Future / Underwater Vehicles for Marine Renewable Energies



**14.Jul 2022**

**Cod. W10-22**

**Mod.:**  
Streaming Face-to-face

**Edition**  
2022

**Activity type**  
Open activity

**Date**  
14.Jul 2022

**Location**  
Zabiel Kultur Etxea

**Languages**  
Spanish Basque

**Organising Committee**





Gipuzkoako Foru Aldundia  
Diputación Foral de Gipuzkoa

# Description

**Iñigo Martínez de Alegría:**

## **Unmanned vehicles for the last frontier.**

Underwater and surface unmanned vehicles allow humans to explore the ocean in a variety of innovative ways. Unmanned underwater vehicles (UUVs) have received worldwide attention and have been widely used in different areas of application. UUVs are increasingly taking on measurement, inspection, repair and monitoring tasks at sea. The development of UUV-s is making it possible to expand our knowledge of the final frontier. The presentation shows different aspects of the design and development of underwater drones or robots.

**Eider Robles:**

Climate change and environmental degradation is one of the main threats in contemporary world. In order to overcome these challenges, the EU agreed on the European Green Pact, a package of policy initiatives aiming at a green transition in the EU, with the ultimate goal of achieving climate neutrality by 2050.

One of the main axes is the decarbonisation of the economy, where the boost to renewable energies comes into play, at a time when they are already more competitive than fossil fuels.

At the national level, Spain's energy dependence is also well above the European average. We currently import around 74% of the energy we consume. Once again, renewable energies are key to solving this serious problem. Spain's leadership in the field of renewable energies is indisputable; not only in terms of installed capacity, but also in terms of technological and industrial development, with significant participation in the entire value chain.

Spain is the country with the longest coastline in the European Union (8,000 kilometres) and has 46 national ports. With a great experience in the naval sector and an important effort in R+D+I, it is in a privileged position to lead the Offshore Renewable Energies. And it is proving it, with a leading industry with a strong presence in the international offshore wind energy market, for example, it already has companies and consortiums participating in the entire value chain of European offshore wind projects.

But the continental shelf in our waters is short and narrow, and great depths are soon reached. The new floating platform technology would make it possible to install offshore wind farms in Spain. The Basque Country has become a technological and industrial niche in Offshore Renewable Energies. It is a world reference with extensive experience in the naval sector, with local developers, testing infrastructures, cutting-edge technology centres and a well-positioned industry capable of supplying advanced components throughout the value chain.

# Program

**14-07-2022**

10:45 - 11:00 Registro / Erregistroa

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11:00 - 11:40 “Tecnologías Renovables Marinas: Presente y Futuro”

**Eider Robles Sestafe** | Tecnalia, Renovables Offshore / Transición Energética, Climática y Urbana UPV/EHU - Departamento Ingeniería de Sistemas de Automática y Control - Directora Científica JRL-ORE

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11:40 - 12:15 “Vehículos Submarinos para Energías Renovables Marinas”

**Iñigo Martínez de Alegria Mancisidor** | UPV/EHU - Miembro JRL-ORE - Departamento de Tecnología Electrónica

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12:15 - 13:15 Mutrikuko olatu plantara bisita gidatua / Visita guiada a la planta undimotriz de Mutriku (plaza mugatuak - plazas limitadas)

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## Teachers



### **Iñigo Martínez de Alegría Mancisidor**

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Mi nombre es Iñigo Martínez de Alegría Mancisidor y soy Dr. en Ciencias, Sección Física, desde el año 2012. Antes de mi incorporación a la universidad, formé parte del departamento de Ingeniería de Control del Centro Tecnológico IKERLAN y del laboratorio metalúrgico AZTERLAN. En 1999 me incorporo como Profesor Colaborador a tiempo parcial, y a partir de 2000 a tiempo completo a la UPV/EHU en el área de Tecnología Electrónica donde obtuvo, en el año 2012, el título de doctor. Hoy en día, es Profesor Agregado del Dpto. Tecnología Electrónica de la UPV-EHU. Asimismo, he participado en más de 50 proyectos de investigación y he sido el investigador principal en 14 de ellos, tanto en la empresa privado como en el sector público. Obtuve el título de doctor en el 2012, Tesis con mención de "Doctor Internacional" y ganadora del premio "GL Garrad Hassan Global PhD Award in Renewable Energy 2012". He dirigido 3 tesis doctorales (y otra que está en curso) financiadas por el Gobierno Vasco y la UPV/EHU. Por otra parte, he sido coautor de 25 artículos en revistas indexadas, más de 70 ponencias en congresos y 3 patentes. Tengo 2 sexenios de investigación y uno de transferencia y 3 quinquenios docentes



### **Eider Robles Sestafe**

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B.Sc. in Electronic Engineering (2001), M.Sc. in Electronic and Automatic engineering from the University of Deusto, Spain (2003) and Ph.D. degree in electronic engineering (Cum Laude, Extraordinary Prize) from the University of the Basque Country (UPV/EHU) in 2010. Since 2012, she is Associate Professor in the Automatic Control and Systems Engineering Department, University of the Basque Country. Since 2003, she has been with TECNALIA, where she is currently a Research Engineer with the Offshore Renewable Energy Area. She has more than 15 years of experience working in European and local research projects. She is author or co-author of more than 50 technical papers, around 50 contributions in international conferences, co-authored 2 patents and 1 technical book. She is also regular reviewer in international journals. Her main research activity deals with power electronics, control and grid connection of Offshore Renewable energy systems. She received a recognition from the Basque government for his research work and scientific and technological merit in 2018.

# Registration fees

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**REGISTRATION - FACE-TO-FACE****UNTIL 14-07-2022**

Free registration

0 EUR

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**REGISTRATION - LIVE ONLINE****UNTIL 14-07-2022**

Free registration

0 EUR

## **Place**

### **Zabiel Kultur Etxea**

Erdikokale Kalea, 28, 20830 Mutriku, Gipuzkoa

Gipuzkoa