

Course title:

Eficiencia Energética y Energías Renovables en el Sector Marítimo
Energy Efficiency and Renewable Energies in the Maritime Sector

Modality: CFA- Advance Training Course**Orientation:**

- Ocean Observation and Global Change
- Sustainable use of Marine Resources
- Integral Management of the Sea
- Technological progress. Engineering and Business Management

Dates: 24, 26 and 27 of April/2023 and 02 and 03 of May/2023**Timetable:** 16:00 to 20:00**Duration:** 20 h**Location:** To be determined**Language:** Spanish**Academic coordinators:**

| Name | Institution | e-mail |
|--------------------------|-------------|-------------------|
| Camilo Carrillo González | UVIGO | carrillo@uvigo.es |

Lecturers:

| Name | Institution | e-mail |
|-------------------------------|----------------------|-------------------|
| Eloy Díaz Dorado | UVIGO | ediaz@uvigo.es |
| José Cidrás Pidre | UVIGO | jidras@uvigo.es |
| Blanca Nieves Miranda Blanco | UVIGO | blancan@uvigo.es |
| Raúl Villa Caro | UDC | raul.villa@udc.es |
| Miguel Ángel Vilar Montesinos | Navantia | - |
| Evripidis Intzempelis | Hijos de J. Barreras | - |

General description:

The maritime sector is involved in a process to reduce its environmental impact. In this context, several aspects are involved in technological advances in regulatory development. In this course, it will be analyzed those developments in the area of ship transportation.

The implementation of renewable energies ships is being tested in several ways and several prototypes are under development or investigation. The most important development in this area will be analyzed in the course.

Contents:

- Renewable energies in ships
- Energy Efficiency Management Plan
- Equipment, systems and electrical installations. Lighting, motor and other lodas.
- Electric propulsion systems in the maritime-fishing sector
- Generation and distribution of electric energy. Analysis tools.
- Power quality in ships.

Teaching methodologies:

Lectures, participative debates, and practical exercises. Tutored works will be proposed to use the theoretical knowledge presented in the classroom.

Evaluation system:

Attendance and participation in the scheduled sessions. The students will have to complete a series of practical exercises.

- Attendance to class: 70%
- Satisfactory completion of the proposed tutored works: 30%

Brief CV of the lecturers:

J. Cidrás works at the Department of Electrical Engineering of the University of Vigo. He is the coordinator of the research group on Electric Energy (http://grupo_ene.webs.uvigo.es). He was the IP of several projects in the energy and renewables area with public and private funding. More info in:

E. Díaz works at the Department of Electrical Engineering of the University of Vigo. He is the member of the research group on Electric Energy (http://grupo_ene.webs.uvigo.es). He was the IP of several projects in the energy and renewables area with public and private funding.

C. Carrillo works at the Department of Electrical Engineering of the University of Vigo. He is the member of the research group on Electric Energy (http://grupo_ene.webs.uvigo.es). He was the IP of several projects in the energy and renewables area with public and private funding.

R. Villa Caro is PhD in Oceanic and Naval Engineering from the University of A Coruña. He works at the Department of Oceanic and Naval Engineering of the University of A Coruña. He is Platform Engineering Manager and Secretary of Exponav (more info in: <https://www.linkedin.com/in/raul-villa-caro-86633940/?originalSubdomain=es>)

Miguel Ángel Vilar Montesinos is Industrial Engineer from the University of Vigo. He began his professional career as an Electrical Engineer at ASTANO, later deriving to Information Systems. He is currently head of the Engineering Systems Department at NAVANTIA.

Evipridis Intzempelis is Electric Project Manager at Hijos de J. Barreras. Previously, he worked at Royal Caribbean Group and Celecrity Cruises. He has over 20 years of experience working in electrical systems of vessels (more info in: <https://www.linkedin.com/in/evripidis-intzempelis-56079aa3/?originalSubdomain=de>)