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PARTNERS WITH A COOPERATION AGREEMENT
Tecnalia
Bcam
IT Cantabria
IDOM
Sener
Sedeca
Innosea
Runde Miljøsenter
EDF
Principle
SINTEF
Bureau Veritas
Astilleros de Murtzeta
Tecnalia
En synonyme
Euskal Enerjiak
Foro Maritimo Vasco
Bermag
Cámara de Gipuzkoa
Basque Energy Cluster
Nautilia
Vicenç Martíne
Bombilla
Metrovacesa
Ingeniería
CENER\Atalaya
Navantia
Eolli
HENE Group
DRV-GL
Wedge

Asociación de Empresas de Energía
Reciclables
GLUAL
Hydraulics
Catapult
CTNS
Sea Europe
CNP
CPR
B"n Toubkan
D-ICE
SEA Integrity
CSEM
MERIC
MNHN
RIDC
Helexis
ITI Technic 
Linnea
University of Strathclyde
Glasgow
DTU
TU Delft
Basalt
GCEE/NODEE
Swansea University
MaxAVRDF
Herzl
France Energies Marines
AMASSI/SU

www.master-remplus.eu/
ERASMUS MUNDUS MASTER IN RENEWABLE ENERGY IN THE MARINE ENVIRONMENT – REM PLUS

INTRODUCTION & OBJECTIVES

Renewable energy plays a more and more important role. At a social level, renewable energy contributes to a more sustainable energy system, by providing a more independent power system and contributing to the reduction of global warming and climate change. Offshore renewable energy has a vast potential, but they represent a major technological challenge. The harsh conditions offshore demand advanced specific knowledge in various scientific and technological fields, and specifically trained professionals are demanded by this industry.

The aim of the REM PLUS master is to form specialists with the required skills to accomplish this technological challenge. The Master provides the student with skills in assessment, analysis, simulation, development and exploitation of all available energy in the marine environment and in project development of safe, efficient and reliable marine energy generation plants, including operation and maintenance design and study of the integration of the plants in the electrical system.

The Master program is fully presented in English and classes are presented by professors of University of the Basque Country, University College Cork (Cork, Ireland), École Centrale de Nantes (France), and NTNU (Norway), and professionals from the supporting companies and institutes.

The master also offers the possibility to develop the Master’s thesis in one of the supporting entities and it offers a number of scholarships.

ENTRY PROFILE

Applicants must have a bachelor’s degree or equivalent in different specific areas of Engineering, Naval Architecture, Nautical and Maritime Transport, Applied Mathematics or Physics. Additional prerequisites about linguistic competence, qualifications and personal skills are required. To find out more, turn to www.master-remplus.eu/admission/

CAREER OPPORTUNITIES

The completion of the master will prepare the student for a leadership role in various renewable energy and marine sectors. Students will be able to carry out high-level technical jobs in engineering companies, equipment manufacturers and other marine industries. Marine and renewable energy companies and institutions increasingly demand specifically trained professionals with an advanced specific knowledge in various scientific and technological fields. This programme trains the student to face the technological challenges that harsh conditions offshore require.

Likewise, students will also be able to pursue research positions in Universities, Research and Development in technological poles, and other institutes. Moreover, this programme has a network of associated centers formed by several world-renowned research institutions and companies entailing a great career opportunity for students. Not only they have a direct participation in the master teaching and hosting students for their master thesis but they also recognize that the learning outcomes of the REM PLUS programme are suitable for positions in their institutions/companies.

ABOUT THE COURSE

Teaching place:
The program involves studying one semester each at 3 of the 4 European partner universities depending on the selected module, and a last 4th semester to develop the final Thesis:
- University of the Basque Country (Bilbao, Spain)
- University College Cork (Cork, Ireland)
- Norwegian University of Science and Technology (Trondheim, Norway)
- École Centrale de Nantes (Nantes, France)

Teaching type: On-site.
Teaching language: English.

Schedule, calendar: From September to July in the morning.

TRAINING SYLLABUS

“Renewable Offshore Energy Systems Engineering”: the units studied include concepts on marine environment, conversion technologies, design and deployment of particular devices and sustainable management of offshore parks.

“Power Electronics and Control for Offshore Renewable Energy Systems”: the units studied include concepts on marine environment, conversion technologies, design and connection into the electricity grid.

Both ways provide students with environmental, economic and legal aspects of marine renewable energy. They prepare students both for further research, and for work within government and energy engineering research/consultancy companies.

TEACHING LOAD

<table>
<thead>
<tr>
<th></th>
<th>Compulsory subject courses</th>
<th>Optional subject courses</th>
<th>Master Thesis</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credits ECTS</td>
<td>34.5</td>
<td>55.5</td>
<td>30</td>
<td>120</td>
</tr>
</tbody>
</table>

Specialization (A):
“Renewable Offshore Energy Systems Engineering”.

Specialization (B):
“Power Electronics and Control for Offshore Renewable Energy Systems”.

The programme contains 2 specializations within the area of marine energy:

<table>
<thead>
<tr>
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</table>

Compulsory subject courses
34.5 Credits ECTS

Teaching Load

Optional subject courses
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Master Thesis
30 Credits ECTS

Total
120 Credits ECTS
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- École Centrale de Nantes (Nantes, France)

Teaching type: On-site.
Teaching language: English.
Approximate fees: Programme Country student (28 EU Member States, Iceland, Liechtenstein, Macedonia, Norway or Turkey) 9000 €, Partner Country student (any other country) 17500 €. Scholarships available.

Schedule, calendar: From September to July in the morning.

TRAINING SYLLABUS

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Hezeta
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