



N/Ref: FEM-2019-061

Object: Post-doc position in marine fouling management in the field of Marine Renewable Energies

Company Description

FRANCE ENERGIES MARINES (FEM), the national research institute dedicated to Offshore Renewable Energy (ORE), supports the nascent ORE industrial sector with the means and skills that increase competitiveness by mutualizing R&D costs, reducing risks and accelerating the acquisition of data and knowledge. FEM main activities relies on Research and Development projects based on a broad public-private partnership involving large groups, SMEs, regional authorities, advanced research and training institutions and competitiveness clusters with the support of the national *Investing for the Future* program. FEM collaborators are scientifically and technically strongly involved in the projects thanks to their high level of scientific expertise. The headquarters of FEM are located in Plouzané (Brest area), France.

Position Description

The successful candidate will work within the “Environmental Integration of ORE” R&D program lead by France Energies Marines. One of the program objectives is to develop tools and methodologies allowing the marine fouling management of ORE structures from a technical / economical point of view.

The postdoctoral candidate will work at the Université de Toulon in the MAPIEM laboratory (EA 4323). He/She will identify suitable systems for effectively preventing fouling from ORE components, in different theatres of operation. To address this program, the candidate will work within a pluridisciplinary consortium with a complementary expertise in ORE systems, in the development and selection of environmentally friendly antifouling or fouling release strategies, in the understanding of (bio)deterioration and the biofouling management. The risks, benefits, barriers and opportunities associated with different types of biofouling management activities will be addressed.

Mission and activities

Under the supervision of Dr. Christine Bressy from the MAPIEM laboratory (Université de Toulon) and Dr. Nolwenn Quillien from the Environmental Integration research program at France Energies Marines, the successful candidate will address a complete literature review covering antifouling approaches, in-water grooming and/or cleaning processes to manage fouling and relevant microbial communities involved in (bio)deterioration of materials. Strong interactions with collaborating partners will be developed. Preliminary *in-situ* tests on selected antifouling strategies will be investigated.

Candidate Profile

<p>➤ Education:</p>	<p>➤ Specific skills:</p>
<p>PhD degree in:</p> <ul style="list-style-type: none"> • Marine fouling, biofilm and antifouling (or mitigation, grooming) strategies • Marine Biodeterioration of materials • Materials and coatings for marine fields 	<p>Dominant skills:</p> <ul style="list-style-type: none"> • Knowledge in marine fouling, biofilm and antifouling strategies • Knowledge in microbial communities involved in (bio)deterioration • Writing reports and publications in scientific journals <p>Complementary skills:</p> <ul style="list-style-type: none"> • Broad knowledge of naval/offshore systems
<p>➤ Professional experience:</p>	<p>➤ Personal qualities:</p>
<p>Industrial or academic research environment, working in marine fields.</p>	<ul style="list-style-type: none"> ▪ Strict scientific rigor and critical analysis; ▪ Taste for applied research (industrial) in a multidisciplinary context; ▪ Skills in (collaborative) project management; ▪ Good communication skills in both French and English (oral, written); ▪ Ability to convince others and incite adherence to a common goal.

Practical Information

Starting date, location: April 2019 at the MAPIEM laboratory, Université de Toulon, France:

SeaTech, Bât. X,
Avenue de l'Université
83130 La Garde

Travels are expected to Brittany at the France Energies Marines headquarters (Bâtiment Cap'Océan, 525 Avenue Alexis de Rochon, 29280 Plouzané) and at the LBCM laboratory, Université de Bretagne Sud (27 rue Armand Guillemot, 56100 Lorient)

Final date for applications: February 28th, 2019

Contract type: 12-month FEM temporary contract, French "CDD".

Application process: please send your CV and cover letter to the following electronic addresses:

contact@ite-fem.org

christine.bressy@univ-tln.fr