



## Internship

« **Technical and economic analysis of sea tests site for Ocean Energy in Europe and worldwide** »

### **SEMREV presentation:**

In Ecole Centrale Nantes (France), the research laboratory in hydrodynamics, energetics, and atmospheric environment (LHEEA) aims to help companies to develop new capacities of energy production.

To reach this objective, the laboratory set up an experimental test site which has all onshore and offshore equipment enabling to develop offshore wind turbine and wave energy converters in operational conditions. The test site is called SEM-REV.

The site has oceanographic measurement tools, a subsea power cable and an onshore electrical substation connected to the national grid. The research center based in Le Croisic comprises offices and a computer room (hosting the servers) to receive, follow-up and control systems in experimentation at sea.

### **Internship scope of work:**

In the frame of its development, SEM-REV test site plans to perform a technical and economic analysis in order to compare the different test sites in Europe and worldwide.

The technical aspect will enable to compare test sites on various parameters such as the available area, the number and types of technologies that can be welcomed on site, the type of electrical connection (if existing), the available resource... The different services proposed by test sites will also be considered.

The economic aspect will enable to compare running costs, business model, past and future investments...

A strategic aspect for future development of test sites will also be treated in order to define future requirements of industry and to propose development proposals to answer these needs.

The intern could also participate in current projects, by assisting project managers of SEM-REV team.

### **Required profile:**

Student in Master (M1 or M2) in school of engineering, you studied the field of Ocean Energy, both from technical and economic aspects. You speak English fluently.

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**Starting date :** March-April 2017

**Internship duration :** 4-6 months

**Localisation :** the intern will be based in Le Croisic (France)