FLOATING WIND TURBINE LOAD ANALYSIS ENGINEER

Company Description

LKS Selection & Training Management

Information

Deadline: 2022-02-19
Category: Business
Province: Bizkaia

Country: Basque Country
City: Bilbao

Company

LKS Next Selection

Main functions, requisites & benefits

Main functions

The Main Responsibilities of this position are to analyse complex phenomena in the area of aerodynamics, structural dynamics, control response, atmospheric physics etc. and to understand the highly coupled nature of the wind turbine system and how the loads are linked to the structural components and mechanical systems design, as well as the overall cost of energy. To interpretate the metaocean data in the different offshore sites and define the Design Load Cases based on this data. To set-up the coupled model (aero-WT-hydro-moorings) using mainly OpenFAST aeroelastic software. To perform load calculations for floating wind turbines for a range of design standards and interpretate the results in terms of the performance of the Floating Offshore Wind Turbine and restrictions imposed by it. To prepare the load-set for the structural assessment of the support structure (tower, floating substructure and stationkeeping system) and dynamic cable and liaising with the other technical disciplines within the Technical Department.

Requisites

A Master's Degree in engineering or physics or mathematics field with high qualifications and is desirable to have a Master in renewable energy or PhD in engineering or physics, preferably in the area of structural dynamics or aero/hydro-dynamics. Understanding in aerodynamic loads, structural dynamics and general mechanical engineering theory. Good programming skills (MATLAB, Python, etc.) and experience in OpenFAST or GH Bladed. Thorough knowledge of wind turbine design standards and class regulations, from IEC and DNV GL among others. The position also requires good knowledge or expertise in loads analysis, aero-elasticity and/or multibody dynamics. You need to be able to understand and interpretate metaocean conditions relevant for the load analysis of Floating Offshore Wind Turbines.