

Group Leader Wind Turbine Aerodynamics

The Unit ECN Wind Energy

The Unit ECN Wind Energy develops knowledge and technology for the offshore wind energy market. The research programme consists of activities in the fields of wind turbine design, control, and aerodynamics and operations. An expanding measurement & experiment group, which is ISO 17025 accredited, forms part of the unit.

The unit has 40 employees and has an intermediary position between universities, the wind turbine industry, project developers and government agencies. ECN has its own test location EWTW (ECN Wind Turbine Test Site Wieringermeer) with various turbines for experimental research. ECN co-operates closely with Delft Technical University (DUWIND) and the Knowledge Centre for Wind turbine Materials and Constructions (WMC) in the Netherlands and many international institutes throughout Europe.

In recent years, the unit has expanded its research activities and recruited new employees. To create space for further growth and to better co-operate with industrial partners, ECN Wind Energy has adapted its organisational structure, creating a vacancy for a Group Leader for the Aerodynamics group.

The Aerodynamics group

The Aerodynamics group is oriented towards developing and testing aerodynamic models which can be used for designing large turbines and determining optimal control strategies for large offshore wind farms. In the field of rotor aerodynamics, we are developing specific numerical models which are much more accurate than the usual engineering models, while being much faster than solutions with standard CFD models. In addition, we are considering new rotor design concepts, including boundary layer manipulation. In the field of farm aerodynamics, we are conducting research into a number of patented control strategies directed towards reducing wake losses in offshore wind farms, which require the development of new flow models specifically for this application. Finally, we are conducting research into the interaction between different wind farms and between wind farms and the local climate.

The Function

You will be responsible for the Aerodynamics group in the unit ECN Wind Energy.

Duties and Responsibilities

You will develop the group strategy and provide guidance in research choices. You will be responsible for drawing up the group's operational plan and for realising the targets set in the plan. This will be done within the framework of the central financial and personnel policy, and the Quality, Safety, Health and Environment assurance system (QSHE). You will also be responsible for acquisition of new projects from (inter)national research programmes and from the industry.

Main Tasks

As the group leader, you will draw up annual plans for the group's future activities. You will present the group's research themes and results for clients and at conferences, and you will contribute to acquiring new assignments. You will participate in weekly meetings with the

unit management team to develop the unit strategy and to discuss operational business. You will also organise bi-weekly group discussions to monitor the group progress, task priorities and solutions for problems the group encounters. You will ensure that the employee competencies remain up-to-date, as well as monitoring individual targets and tasks. You will also be expected to contribute materially to the projects. In addition, you will be responsible for group progress reports, and attend the ECN management quarterly meetings.

Function Requirements

You have an academic training in the field of fluid dynamics, and have experience with cutting-edge international research projects, preferably in the field of wind energy, backed up with published articles. Affinity with experimental work is a plus. You are able to motivate and stimulate others, and can infuse others with your positive attitude. You can work towards goals and results, and possess good communication skills in English. You are willing to learn Dutch.

Information

For more information, please contact T.J. de Lange, tel.: +31 (0)224 – 564134, or e-mail: t.delange@ecn.nl.

Applications

Please send your written application including a curriculum vitae and stating the vacancy number: WIN-01/478 to the following address: ECN, Human Resources Department, P.O. Box 1, 1755 ZG Petten, the Netherlands or e-mail: sollicitatie@ecn.nl.
