



Job title: Hydrodynamic engineer
Level: Research engineer
Institution: LHEEA (Hydrodynamic, Energetic and Atmospheric Environment Research Laboratory)

As a member of the “Ecoles Centrales” group of engineering schools, our establishment provides superior engineering training to a highly select group of talented students. Each year, we welcome more than 2000 French and international students to our Nantes campus.

Research and training at Centrale Nantes focuses on three main growth areas: manufacturing, energy transition, and health. To this end, our school is equipped with numerous resources, including research platforms (ocean engineering tank, engine test benches) and a project incubator to support the development of innovative businesses.

The advertised position is within the Hydrodynamic, Energetic and Atmospheric Environment Research Laboratory (LHEEA), whose missions include development of marine renewable energy, human and environmental safety in marine activities, reduction of polluting emissions associated with marine and terrestrial transport, and urban air quality. The position is attached to LHEEA’s hydrodynamic and ocean engineering tank (BHGO)¹.

Description of position:

In collaboration with the director of the BHGO, and with the assistance of the technical team, your mission will be to organize, perform and analyze hydrodynamic tests in the tank. This will involve:

- ✓ Working with researchers, partners or customers to develop test protocols that address specific scientific requirements, for measurements, characterization or observations.
- ✓ Drafting functional and technical specifications.
- ✓ Organizing, coordinating and carrying out trials in the tank, monitoring their implementation, and validating the experimental set-up and methods at all stages.
- ✓ Taking the lead in carrying out, interpreting and validating measurements.
- ✓ Managing the human, technical and financial resources allocated to the experiments.
- ✓ Analyzing data and presenting results in reports, publications and scientific presentations.
- ✓ Organizing team projects in collaboration with permanent staff and doctoral students.
- ✓ Assisting researchers from the laboratory with setting up their experimental projects.
- ✓ Developing the team’s understanding of ocean engineering and simulation of physical systems.
- ✓ Providing support to students, doctoral students and post-doctoral researchers.
- ✓ Closely monitoring technological developments.
- ✓ Presenting, sharing and promoting the work of the laboratory.
- ✓ Giving advice in your area of expertise.
- ✓ Leading a team.
- ✓ Drafting experimental protocols, experimental reports, and scientific publications.

¹ The acronym BHGO derives from the French, *Bassin de Houle et de Génie Océanique*.

Profile sought:

Skills:

- ✓ Expertise in ocean engineering.
- ✓ Expertise in physical and hydrodynamic modeling.
- ✓ Understanding of the science of measurement and the scientific method.
- ✓ Experience in data analysis and signal processing.
- ✓ Fluency in written and spoken English.
- ✓ Experience in project management.
- ✓ Proficiency in use of relevant software (e.g. Matlab).
- ✓ Experience in negotiation.
- ✓ Implementation of quality-assurance procedures.
- ✓ Application of hygiene and safety standards.
- ✓ Monitoring and evaluation of project performance.

Qualities:

- ✓ Disciplined.
- ✓ Well-organized.
- ✓ A team player.
- ✓ Able to train both students and staff.

Level required:

Masters degree or equivalent
2--5 years experience in an experimental research unit.

Details of the position:

Full-time contract, either fixed-term or permanent, according to the level of experience.
Open to contractors.
Position based in Nantes.
Immediate start.

Conditions:

Occasional travel to attend meetings and conferences is to be expected.

To apply:

Please address your CV and cover letter to candidatures@ec-nantes.fr or the following address:

Direction des Ressources Humaines
1 rue de la Noë
44321 Nantes
FRANCE

Applications accepted until 31st January 2020.

Public institution reporting to the minister for research and higher education.

GROUPE CENTRALE

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