IFB Institute of Aircraft Design - University of Stuttgart

Stuttgart Wind Energy (SWE) • Prof. Dr. Po Wen Cheng

At Stuttgart Wind Energy (SWE) – part of the Institute of Aircraft Design – we have looking for a:

Researcher / Research Assistant (Salary according to TV-L E13, 100%)

Floating wind farm design and optimization

About this job

Stuttgart Wind Energy (SWE) is part of the Institute of Aircraft Design at the University of Stuttgart. SWE's research group "Simulation, Optimization and Control" focuses on tackling design, optimization, and control challenges in onshore and offshore wind farms. SWE has extensive experience in floating offshore wind through participation in several EU and national research projects such as LIFES50+, COREWIND, VAMOS, and FARID. Tools like SLOW and FloatingWAYS have been developed by SWE researchers to push the boundaries of floating offshore wind energy.

The main task of the candidate will be to contribute to a floating wind farm research project. Within this project, the candidate will develop design methodologies for mooring systems, inter-array dynamic cables, and export cables in floating offshore wind farms. The design objective is to improve efficiency and reduce the cost of energy using passive relocation and active wind turbine control.

Your responsibilities:

In addition to research activities, responsibilities will include:

- Supporting SWE's teaching activities (e.g., lectures and supervision of student theses)
- Contributing to project management within ongoing research projects.
- Participating in other institute-related tasks are required.

What we can offer you:

- An internationally recognized, young and motivated team of researchers.
- A versatile and interdisciplinary job and the possibility to pursue a PhD.
- A flexible working environment to support your professional and academic development.
- Collaboration with international research institutions and industry partners in wind energy.
- Flexible working hours.

Candidate Profile

Applicants should have the following qualifications:

- A Master of Science degree (or equivalent) in aerospace engineering, wind energy engineering, naval engineering or related field.
- Basic knowledge in floating wind energy and structural dynamics.
- Creativity, analytical skills, self-motivation, and the perseverance to pursue a PhD.
- Excellent written and spoken communication skills in English.

We are looking for a candidate who:

- Has a strong motivation in scientific research.
- Enjoys working in research projects and is enthusiastic about pushing technological boundaries and is self motivated.
- Actively support new project applications and willing to explore new research directions.

The University of Stuttgart is committed to increasing the number of women in science and encourages qualified female candidates to apply. Applicants with a disability and equal qualifications will be given preference.

Contact

Please send your electronic application in English with curriculum vitae, transcript of grades, job references, and an electronic copy of the final thesis of your studies or relevant research papers to

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Please include a short paragraph in the letter, discussing the concept of floating wind turbine that according to your opinion has the biggest potential. Review of applications will begin immediately and continue until the position is filled.