Job posting

Type of position
☒ scientific
☐ administrative

Target group
☒ graduates
☐ post docs
☐ other

Title
PhD Students and Research Assistants working on Atmospheric Flow Around Large Offshore Wind Farms

Institution
University of Tübingen
Environmental Physics Group at the Center of Applied Geoscience

With this long tradition, the University of Tübingen is one of the most respected universities in Germany and one of Germany’s universities distinguished with that title of excellence. Tübingen has also proven its status as a leading research university in many national and international competitions. With its broad spectrum of subjects, the University of Tübingen provides a wealth of opportunities for interdisciplinary collaboration. And such close cooperation on research extends beyond the University and around the world. The University of Tübingen has joint research projects at all levels with other institutions of higher education, with research institutes and with industry.

Position
Currently, we are looking for several PhD Students and Research Assistants with a master in Meteorology, Physics, or Engineering working on Atmospheric Flow Around Large Offshore Wind Farms

These Marie Skłodowska-Curie Early Stage Researcher positions are embedded in the new ITN (Innovative Training Network) Train2Wind, in which entrainment in offshore wind farms is analysed using computer models, remote sensing, and field experiments.

Within Train2Wind, the Environmental Physics group at the University of Tübingen, Germany, studies the turbulent atmospheric flow in and around off-shore wind farms using small automatically operating unmanned aircraft systems (UAS). Our main interests are the turbulent energy and momentum exchange, the interaction of atmospheric turbulence with wind turbines, and the aerosol particle transport near wind parks. For our UAS, we develop fast meteorological sensors, calibration methods, and software for data analysis.

The positions are available from 1st August 2020 on and will be open until filled. However, we appreciate your application as soon as possible. Salary will be according to the German public
service (75 % of TVL E13). The PhD positions are limited to 36 months, for the Research Assistant postions to 1 year and 1 ½ year, respectively. In case of equal qualification and experience physically challenged applicants are given preference. The University of Tübingen aims at increasing the share of women in research and teaching and encourage female scientists to apply.

**Responsibilities**

The ideal candidates hold a master degree in atmospheric science, physics, electronics or aerospace engineering with a strong experimental focus and experience in:

- environmental measurement technology and sensors,
- data analysis and statistics in atmospheric science and fluid dynamics
- UAS / model aircraft operation and control
- Raspberry Pi, Arduino, Linux, R or Python programming

Unalterable EU eligibility criteria for candidates are:

- less than 4 years of equivalent research experience (i.e. working as researcher after obtaining your master’s degree)
- not been awarded a title of PhD
- not resided or carried out your main activity in Germany for more than 12 months in the last 3 years

**Requirements**

The tasks for the PhD students and Research Assistants include:

- maintenance and preparation of our UAS (autopilot system, data acquisition, fast response turbulence sensors, optical particle counters)
- planning and performing flights using our UAS on field campaigns at the North Sea
- analysis of experimental meteorological data, comparison with numerical studies and remote sensing
- improvement / innovations in turbulence and particle sensor technology
- co-operation with our Train2Wind partners in Denmark, Norway, and Switzerland
- including research stays at our partners’ institutes for several months, in total

**Application procedure (deadline etc.)**

Please send your application (including application letter, motivation and statement of research interests, CV, and certificates in one single PDF file!) referring to announcement code

**Contact**

umphy-2020-T2W
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