

Job advertisement

7/2008

At the Endowed Chair of Wind Energy (SWE) of the Institute of Aircraft Design at the Universität Stuttgart, there is a vacant PhD position starting as soon as possible as

Research Assistant (Salary according to TV-L E13)

The thematic focus will be about

Simulation and Verification of the Influence of Entire System Dynamics on Drive Train Components of Wind Turbines.

Different onshore- and offshore wind turbines have to be modelled with the multibody simulation code SIMPACK in order to systematically analyse the influence of the overall system dynamics on the main components, esp. on the drive train. On this basis, improved methods for the determination of relevant design load cases have to be developed and validated with the aid of measurements. Furthermore a process to reduce the design loads and therefore improve the turbine reliability has to be demonstrated. This process shall to be based on a better adjustment of the overall dynamics with component dynamics.

The research will be in cooperation with the PhD-project "Aeroelastic and Structural Dynamic Analyses of Large Wind Turbines by Multibody Simulation" and other fields of activity at SWE (Load Measurements for On- and Offshore WT, Aeroelastic Simulation, Cybernetics, and Monitoring). Also Partners from industries of the European project „ProTest“, as well as the national projects „OWEA - Verification of Offshore WT at the Offshore Test Field" and "Development of SIMPACK Wind" are involved in this project.

Support for teaching courses, the supervision of master thesis projects and the establishment of the research area wind energy at Universität Stuttgart is expected.

The applicant needs to have a qualifying master degree in mechanical engineering, aircraft design, civil engineering or an equivalent study course with fundamental knowledge in structural dynamics and wind energy. Further requirements are the aptitude and willingness for doing a PhD, as well as fluent spoken and written English. In the beginning, the employment is limited to one year. After a positive evaluation of the first year, an extension up to minimum 4 years is aimed.

Further information and application to:

Prof. Dr. Dipl.-Ing. Martin Kühn

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The Universität Stuttgart wants to increase the amount of women doing research, by what applications from woman are explicitly supported. Full positions are basically divisible. Severely disabled are priority ranked if they have the same qualification as other applicants. The recruitment of research assistants is carried out by the head of administration of Universität Stuttgart.