



INTERNSHIP / RESEARCH FELLOWSHIP

FOUNDATION SOLUTIONS FOR OFFSHORE WIND TURBINES

The development of offshore wind has a potential electrical generating capacity of over 900 GW. Offshore wind also has advantages of (i) being closer to high population areas; (ii) minimizing visual and noise impact of turbines; and (iii) being located in areas of faster and more uniform wind speeds. With these advantages comes technical complexities of designing structures to handle combined wind, wave, and ice loading for various water depths. As water depth increases, foundation design becomes more important and could approach up to 50% of total turbine costs for water depths in excess of 50m. Research is needed so that offshore wind energy can be harnessed in an efficient and cost effective manner.

Fugro and the **Graduate School at the University of Wisconsin - Madison** are looking for a qualified individual to perform research related to foundation solutions for offshore wind turbines. The research will combine experimental and theoretical studies of offshore wind turbine foundation performance, specifically addressing the influence of foundation configuration, installation, soil/rock type, water depth, long term cyclic loading, redundancy, and ageing effects.

The program entails a **12 week internship** for the summer 2009 and option for a subsequent internship in summer 2010 at Fugro Atlantic in Norfolk Virginia, or other domestic Fugro office, working on geotechnical aspects of nearshore and offshore engineering design and construction. A **2 year scholarship** (fees & \$19k/year stipend) to earn a **Masters Degree** in Civil (CEE) or Geological (GLE) Engineering at the **University of Wisconsin - Madison** is provided for the academic years of 2009/2010 and 2010/2011.



For additional information please contact:

James A. Schneider
Assistant Professor, University of Wisconsin - Madison
james@cae.wisc.edu
http://www.engr.wisc.edu/cee/faculty/schneider_james.html

Tom McNeilan
General Manager, Fugro Atlantic, Norfolk, VA
tmcneilan@fugro.com
<http://www.fugroatlantic.com>