Wind Energy Technologies

SUPERGEN

University of Surrey

People

Dr P. E. Hancock

Longstanding interests in turbulent flows with strong distortions - separated flows, boundary layers, wakes - and, more recently, wind-flow over complex terrain and wind turbine aerodynamics.

Prof. A. G. Robins

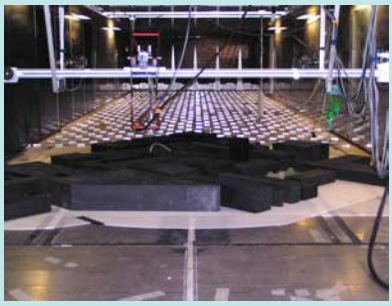
Director of the EnFlo Laboratory of the Environmental Flow Research Centre, an NERC national facility, based at Surrey. Longstanding interests in atmospheric boundary layer flows in urban and complex terrain, and wind turbine aerodynamics.

Prof. J. M. R. Graham (Imperial College)
Longstanding standing interests in unsteady aerodynamic, experimental and theoretical, including marine hydrodynamics and wind-turbine blade aerodynamics.

Researchers - about to be appointed

Relevant Expertise

The EnFlo Laboratory has well established facilities and experienced personnel for wind-flow studies, primarily for flow modelling and dispersion, and experience in field data measurement campaigns. The picture below is of the EnFlo wind tunnel, one of several in the laboratory.



Technical role within the SUPERGEN

To develop improved modelling and design tools, assisted by wind tunnel simulation and available field data, for

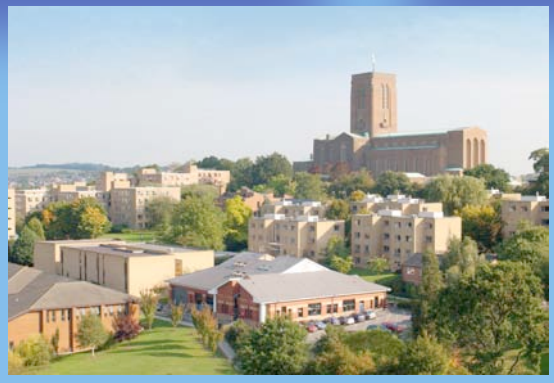
- wake development of large wind turbines in the atmospheric boundary layer,

- wake-wake interactions and development of complex wakes,

- the effects of atmospheric boundary layer conditions on large wake and complex wake development,

- the effects of wakes as they impinge on downwind machines, and use of sensors to distinguish wake effects from the background atmospheric boundary layer.

View of the University around Guildford Cathedral



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