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Wind engineering research

This section of the website outlines the wind engineering research that the group is either undertaking or plans to undertake in the not too distance future.

Please contact **Dr Mark Sterling (mailto:m.sterling@bham.ac.uk)** if you would like to know more about any of the projects outlined below. Recently the group has expanded to include the internationally regarded group from the former **Silsoe Research Institute (http://www.silsoeresearch.org.uk/envir-wind-waste/wind.html)** .

Current wind engineering research;

- **Development of a model to examine the wind induced forces on an oat plant (PDF) (/research/activity/civil-engineering/short-term/wind/research/cheng-wind-induced-forces-oat-plants.pdf)**
- **Determination of the characteristics of near ground level non synoptic winds (PDF) (/research/activity/civil-engineering/short-term/wind/research/non-synoptic-winds.pdf)**
- **Experimental quantification and modelling of the dispersion of particles in urban street canyons (PDF) (/research/activity/civil-engineering/short-term/wind/research/dispersion-of-particles.pdf)**
- **Investigating the effect of urban turbulence on the performance of small-scale wind turbines (PDF) (/research/activity/civil-engineering/short-term/wind/research/urban-turbulence-small-scale-wind-turbines.pdf)**
- **Investigation of the slipstreams and wakes of high speed trains and associated effects on trackside structures and people (PDF) (/research/activity/civil-engineering/short-term/wind/research/slipstreams-wakes-high-speed-trains.pdf)**
- **The investigation of the flow fields around trains in cross winds (PDF) (/research/activity/civil-engineering/short-term/wind/research/flow-fields-around-trains.pdf)**
- **The lodging of wheat in high winds (PDF) (/research/activity/civil-engineering/short-term/wind/research/lodging.pdf)**
- **Physical simulation of thunderstorm downbursts (PDF) (/research/activity/civil-engineering/short-term/wind/research/physical-simulation-thunderstorm-downbursts.pdf)**
- **Wind Early Alarm System for Terrestrial Transport Handling Evaluation of Risks (WEATHER) (PDF) (/research/activity/civil-engineering/short-term/wind/research/WEATHER.pdf)**
- **Understanding Steady and Unsteady Aerodynamic Crosswind Effects on Rail VehiclesThe lodging of wheat in high winds (PDF) (/research/activity/civil-engineering/short-term/wind/research/crosswind-on-rail.pdf)**

Possible PhD projects (PDF) (/research/activity/civil-engineering/short-term/wind/research/PhD-studentships-Wind-Engineering.pdf) : These projects are available for potential PhD study within the field of wind engineering and environmental fluid mechanics. Candidates for such projects should either be self-funded or should seek sponsorship from a suitable source.

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