

## Wind engineering

Wind engineering is becoming increasingly important because of more extreme weather events. By building what is believed to be the UK's leading research team in this subject, headed by **Professor Baker** (</staff/profiles/civil/baker-chris.aspx>) and co-ordinated by **Dr Sterling** (</staff/profiles/civil/sterling-mark.aspx>), the aim of this research theme is to address the complex challenges posed to engineers.

Examples of the advances made in wind engineering include:

- **Dr Quinn** (</staff/profiles/civil/quinn-andrew.aspx>) recently joined the group from Silsoe Research Institute to advance the pioneering research on wind-induced forces on buildings and their ventilation being conducted by Dr Sterling and Professor Baker.
- Novel transport-related wind research includes an EU grant on cross-wind forces on lorries awarded to Professor Baker, Dr Sterling and Dr Quinn (£137k - EU FP6 CRAFT(CT-2004-512862)), and builds on earlier research into wind-induced effects associated with vehicles and trains.
- A major donation of research equipment and instrumentation (worth >£0.2million), transferred from Silsoe College to Birmingham, together with the lease of uniquely well-characterised test sites, has provided the group with excellent facilities.
- A thunderstorm generator has been created with Royal Society funding as a major facility in the Civil Engineering laboratories.
- Senior figures in the fields of railway, (Roger Gawthorpe), and wind engineering research, (Roger Hoxey), have been appointed as Honorary Professors.
- Grants have been awarded to Professor Baker, Dr Sterling and Dr Quinn by defra to advance novel work on cereal crop damage, the Rail Safety and Standards Board for research on Pantograph movement in cross-winds and EPSRC (EP/F03489, £417k) for research into the flight of wind borne debris.
- **Dr Tang** (</staff/profiles/civil/tang-xiaonan.aspx>) has recently been appointed as a Birmingham Research Fellow to add an additional computational ability to underpin this research.



The work undertaken at Birmingham is truly multidisciplinary and involves a number of collaborators from a variety of fields. Details relating to our current projects work can be found on the Research section of the website, whereas information relating to past research can be found under the publication sections. Alternatively, if the information you require is not on the website or you wish to discuss any items of our work further please email **Dr Mark Sterling**. (</staff/profiles/civil/sterling-mark.aspx>)