

Elizabeth Hooper

Doctoral Researcher

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About

Title of PhD: Future Resilient Transport Networks – Investigating the potential future impacts of precipitation on the UK road network

Supervisors: [Dr Lee Chapman \(/staff/profiles/gees/chapman-lee.aspx\)](/staff/profiles/gees/chapman-lee.aspx), [Dr Andrew Quinn \(/staff/profiles/civil/quinn-andrew.aspx\)](/staff/profiles/civil/quinn-andrew.aspx)

Elizabeth's research focuses on the impact of precipitation on the UK road network, looking specifically at the impacts along the M1 and M6 motorways from London to Carlisle. Using data from the Highways Agency and NIMROD precipitation radar data, the relationships between traffic speeds, flows and precipitation intensities are being investigated with a view to using the findings with climate projections to develop an understanding of how the road network may be affected by precipitation in future.

Elizabeth's research is part of the Future Resilient Transport Networks (Futurenet) project, funded by the EPSRC.

Qualifications

MSc Applied Meteorology and Climatology, University of Birmingham, 2009

BSc (Hons) Geography, University of Birmingham, 2008

Biography

Elizabeth previously studied BSc Geography at the University of Birmingham and then went on to complete an MSc in Applied Meteorology and Climatology before commencing her PhD studies.

Research

Research interests

Climate change, Transport, GIS

Other activities

- Member of the organising committee for the Royal Meteorological Society Student Conference (2012)
- Royal Meteorological Society member
- First year undergraduate academic tutor
- Postgraduate demonstrator

Publications

Hooper E. & Chapman L. (2012) The Impacts of Climate Change on National Road and Rail Networks, in Ryley T. & Chapman L. (Eds) *Transport and Sustainability, Volume 2, Transport and Climate Change*, Emerald, Bingley, pp 105 – 136

Hooper E., Chapman L. & Quinn A. (in press) Investigating the impact of precipitation on vehicle speed on UK motorways, *Meteorological Application*