



UNIVERSITY OF LEEDS

CANDIDATE BRIEF

Research Fellow in Vehicle Fleet and Air Quality Analysis, Institute for Transport Studies, Faculty of Environment



Salary: Grade 7 (£33,797 – £40,322 p.a.)

Please note that due to funding limitations an appointment will not be made above £34,804

Reference: ENVTR1120

Fixed-term for 2 years

We will consider job share / flexible working arrangements

Research Fellow in Vehicle Fleet and Air Quality Analysis Institute for Transport Studies, Faculty of Environment

Are you an ambitious researcher looking for your next challenge? Are you wanting to contribute to understanding the evolution of the UK road transport fleet and its implications for climate and air quality emissions? Do you want to know what policies are effective in improving air quality, helping make our cities cleaner, healthier places to live? Are you motivated to enhance your data carpentry and analysis skills and share your developments with researchers and practitioners?

Working with staff in the Institute for Transport Studies (ITS) and collaborating with researchers in the [UK Energy Demand Centre](#) and the [Leeds Institute for Data Analytics](#), you will undertake research to track the evolution of the UK road transport fleet and study the implications for climate and air quality emissions. You will also study the effectiveness of policies and plans to improve air quality in our cities; sharing knowledge on what interventions work, helping accelerate the pace of change to cleaner, healthier city streets.

The research you will be conducting will help address two of the most pressing issues our global society faces: tackling climate emissions and the impact of poor air quality on our health. More evidence is desperately needed on the trends in vehicle purchasing, use and the emissions they generate. You'll have the opportunity to realise innovations in this field by accessing new sources of information and crafting novel analysis approaches.

The UK is implementing plans to improve air quality in many of our towns and cities. One of your roles, as part of a wider team, will be to track the impacts of these policies on traffic flow and the vehicle fleet composition; but also air quality measurements, the "ground-truth" indicator of the success of efforts to clean the air in our city streets.

You will be a Researcher with a PhD in an appropriate area. You will be a keen, motivated data analyst; with a proven ability to handle, analyse, visualise and communicate complex environmental information. You'll have the opportunity to work alongside researchers in the field the [UK Energy Demand Centre](#) and the [Leeds Institute for Data Analytics](#).



What does the role entail?

As a Research Fellow, your main duties will include:

- Collaborating with colleagues in ITS and with our project partners, writing high quality open-source code to handle and analyse vehicle fleet data and air quality measurements across the UK;
- Demonstrating the data infrastructure and analysis innovations to researchers, city authorities and regulators to establish best practices;
- Articulating and conveying the research innovations and its impact;
- Providing quality documentation of the open-source software code you have contributed to developing;
- Disseminating findings from the research projects by preparing and delivering research presentations at conferences;
- Contributing to the development of research and Innovation funding applications;
- Contributing to project deliverable reports;
- Evaluating methods and techniques used and results obtained by other researchers and to relate such evaluations appropriately to your own work;
- Preparing papers for publication in leading international journals and disseminating research results through other recognised forms of output;
- Working both independently and also as part of a larger team of researchers, engaging in knowledge-transfer activities where appropriate and feasible;
- Maintaining your own continuing professional development and acting as a mentor to less experienced colleagues as appropriate;
- Contributing to the training of both undergraduate and postgraduate students, including assisting with the supervision of projects in areas relevant to the project.

These duties provide a framework for the role and should not be regarded as a definitive list. Other reasonable duties may be required consistent with the grade of the post.

What will you bring to the role?

As a Research Fellow you will have:



- A PhD in a relevant area such as Vehicle Emissions, Air Quality, Sustainable Cities, Transport Planning, Geographic Information Systems, Computer Science or Civil Engineering or a closely allied discipline;
- A strong background in a relevant technical subject such as Environmental Science, Statistics, Engineering, Physics or Computer Science (or other relevant experience);
- Experience in the use of software for data science and an in-depth understanding of large environmental and transport datasets;
- Computer-literacy in R, Python or equivalent programming language for data science;
- Networking skills, with demonstrable ability to work effectively in a cross-cultural environment;
- A strong commitment to professional development;
- Good time management and planning skills, with the ability to meet tight deadlines, manage competing demands and work effectively under pressure without close support;
- A proven track record of peer-reviewed publications in high impact factor journals;
- Excellent written and verbal communication skills including presentation skills;
- A proven ability to work well both individually and in a team;
- A strong commitment to your own continuous professional development.

You may also have:

- Experience of the design, development and delivery of projects with strong applications to the real world;
- Experience of applying research to the real world, with an emphasis on industrial or policy impact;
- Experience of supervising student or commercial projects or of mentoring graduates;
- Experience of providing support for commercial or public sector research projects and hosting of industry and related datasets.

How to apply

You can apply for this role online; more guidance can be found on our [How to Apply](#) information page. Applications should be submitted by **23.59** (UK time) on the advertised closing date.



Contact information

To explore the post further or for any queries you may have, please contact:

Dr James Tate, Associate Professor in Vehicle Emissions and Air Quality

Tel: +44 (0)113 34 36608

Email: j.e.tate@its.leeds.ac.uk

Additional information

Find out more about [the Institute for Transport Studies](#)

Find out more about [Athena Swan](#) in the Faculty.

A diverse workforce

The Faculty of Environment has received a prestigious Athena SWAN silver award from [Advance HE](#), the national body that promotes equality in the higher education sector. This award represents the combined efforts of all schools in the Faculty and shows the positive actions we have taken to ensure that our policies, processes and ethos all promote an equal and inclusive environment for work and study.

Working at Leeds

Find out more about the benefits of working at the University and what it is like to live and work in the Leeds area on our [Working at Leeds](#) information page.

Candidates with disabilities

Information for candidates with disabilities, impairments or health conditions, including requesting alternative formats, can be found on our [Accessibility](#) information page or by getting in touch with us at disclosure@leeds.ac.uk.

Criminal record information

Rehabilitation of Offenders Act 1974

A criminal record check is not required for this position. However, all applicants will be required to declare if they have any 'unspent' criminal offences, including those pending.



Any offer of appointment will be in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our [Criminal Records](#) information page.

