



UNIVERSITY OF LEEDS

## CANDIDATE BRIEF

**Research Fellow in Vehicle Fuel Consumption and Emission Measurement / Analysis, Institute for Transport Studies**



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

**Please note, due to funding limitations an offer will not be made above £34,804 p.a.**

**Reference: ENVTR1117**

**Fixed-term for 2 years (due to external funding)**

**We will consider job share / flexible working arrangements**



# Research Fellow in Vehicle Fuel Consumption and Emission Measurement / Analysis

## Institute for Transport Studies, Faculty of Environment

**Are you an ambitious researcher looking for your next challenge? Are you wanting to contribute to the development of vehicle emission surveillance technologies that will help make cities cleaner, healthier places to live? Do you have an interest in enhancing your skills to handle and analyse transport and environmental data?**

Working with staff in the Institute for Transport Studies (ITS) and collaborating with world leading researchers across Europe, you will undertake research to help take vehicle emission surveillance technologies to the next level; their widespread use to identify high- or low-emitting vehicles, tracking policy effectiveness, and informing consumer purchase decisions.

The road transport emissions research you will be conducting will help address one pressing issue for our global society, the impact of poor air quality on our health. More evidence is desperately needed on vehicle fleets, the emissions they generate on-the-road not in laboratories, exposing widespread practices to cheat emission controls; to help solve the air-quality problems in our cities.

You will be a keen, motivated post-doctoral data analyst; with a proven ability to handle, analyse, visualise and communicate complex environmental information. You'll have the opportunity to work alongside leading researchers in the field, including the International Council on Clean Transportation ([www.theicct.org](http://www.theicct.org)). Your role will be to help establish data infrastructures and analytics using open-source tools to allow for easier, faster, and more accurate integration and aggregation of vehicle emission data. You will work on two, inter-related European Horizon 2020 project and have the opportunity to travel to meetings, conferences and city demonstrations.

### What does the role entail?

As a Research Fellow, your main duties will include:

- Collaborating with colleagues in ITS and project partners, writing high-quality open source code to handle and analyse the vehicle emission and air quality measurements made in the project's demonstration cities;



- Demonstrating the data infrastructure and analysis innovations to researchers, city authorities and regulators to establish best practices;
- Generating and pursuing independent and original research ideas in the appropriate subject area;
- Developing research objectives and proposals and contributing to setting the direction of the research project and team including preparing proposals for funding in collaboration with colleagues;
- 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 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 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 an inter-disciplinary research environment;



- 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 pursuing external funding to support research;
- 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)113 343 6608

Email: [j.e.tate@its.leeds.ac.uk](mailto:j.e.tate@its.leeds.ac.uk)





## Additional information

Find out more about [the Faculty](#)

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](mailto: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.

