



UNIVERSITY OF LEEDS

CANDIDATE BRIEF

**University Academic Fellow in Vehicle Automation
Institute for Transport Studies, Faculty of Environment**



Salary: Grade 8 (£40,792 – £48,677 p.a.)

Reference: ENVTR1082

Closing date: 10 March 2019

We will consider flexible working arrangements

University Academic Fellow in Vehicle Automation Institute for Transport Studies, Faculty of Environment

Are you an experienced and ambitious researcher looking for your next challenge? Do you have a strong research background in vehicle automation? Do you want to further your career in a World-Leading, research-intensive Russell Group University?

With a vision and drive to contribute to a World-Leading research portfolio, as well as a passion for undertaking research-led teaching, you will make a significant impact on the performance, stature and profile of research and student education at The University of Leeds.

In a bid to improve road safety, reliability, energy efficiency and productivity, while reducing infrastructure costs, vehicle manufacturers are increasing the degree of automation in cars. These systems reduce the driver's involvement in the actual operation of the vehicle, while increasing their potential to engage in other tasks, such as reading emails, texting etc.

As automation penetration increases, it is not clear how humans will interact with these systems and what the real consequences of vehicle and road automation are. With its world leading [Virtuocity](#) centre, incorporating an immersive simulation suite which includes the leading motion-based driving simulator in the UK and the world leading, state-of-the-art, EPSRC-funded, pedestrian-in-the-loop simulator, the Institute for Transport Studies (ITS) is at the forefront of understanding the human factors challenges these automated systems pose.

Members of the Human Factors and Safety group at ITS are partners in a number of leading projects in this area, including [HumanDrive](#), funded by Innovate UK, and the EU-sponsored [interAct](#) and [L3Pilot](#) projects, which are investigating solutions for the human-centred design of these systems, as well as their verification and validation. Designing automated vehicles, requires a multidisciplinary approach and we need an expert in machine learning, vehicle control or simulation validation techniques to help design the vehicles of the future. With researchers involved from the School of Computer, Mechanical Engineering, Psychology and the Institute for Data Analytics (LIDA), the University provides the perfect environment to leverage the multidisciplinary interaction between artificial intelligence and immersive simulation, to ensure that these systems provide a safe environment for traditional drivers and other, more vulnerable, road users.

This fellowship position is available in a vibrant research market, with over £500M of funding opportunities in the driverless car research area supported by multiple funding paths, including the Industrial Strategy Challenge Fund, Meridian Mobility Technology,

UKRI, Innovate UK, and the European Commission, as well as through direct collaboration with a wide range of industrial partners.

In partnership with colleagues at ITS and across the University, you will be encouraged and supported to develop multidisciplinary research proposals. You must be able to apply knowledge from Engineering, Computer Science, or other relevant disciplines to leverage existing developments in simulation, sensors, Artificial Intelligence, and control technologies.

You will also expand the link between the engineering and human factors aspects of this work, and you will be expected to play a key part in bringing together interests in automation research across the University. Working closely with colleagues from Virtuocity, Psychology, Leeds Institute for Data Analytics, the School of Computing, and Leeds Robotics, with an aim to build a cross-disciplinary PhD training programme in automation, simulation and immersive technologies. You will contribute to current and future Masters teaching at ITS, and to the recruitment and supervision of doctoral students in the area.

Career Pathway: Tenure track equivalent post requiring successful completion of a 5 year development plan, leading to appointment to a grade 9 Associate Professor, with the potential for accelerated progression.

What does the role entail?

As a University Academic Fellow your main duties will include:

- Pursuing a programme of individual and collaborative research, resulting in high quality publications and a national and international profile and engaging with industry as appropriate to attract and co-ordinate major initiatives;
- Promoting the integration of your own research area with other research interests, in the School, Faculty and University;
- Attracting research funding individually and collaboratively to underpin high quality research activity and research programmes/projects;
- Developing a strategy to ensure that your research has the potential for impact beyond academia;
- Undertaking research-led teaching at different levels, with engagement in continual improvement in response to student and other feedback;
- Contributing to the design, development and planning of teaching modules and policy within the subject area as required;
- Working in partnership with students to provide outstanding education and an excellent student experience;
- Contributing to the management of the School or cross university interdisciplinary initiatives by taking on appropriate leadership, management and administrative responsibility;

- Leading academic initiatives and projects in research and student education which facilitate School, Faculty and/or University development;
- Participating in the recruitment, management and development of staff as well as acting as a mentor to less experienced colleagues;
- Contributing to the development of the discipline or research area, e.g. through organisation of conferences or membership of key bodies setting the strategic direction of the area;
- Contributing to the development and achievement of University, faculty and school strategy within the context of an international, research-led university;
- Becoming a specialist in the field, developing and maintaining an external profile as appropriate to the discipline;
- Maintaining your own continuing professional development;
- Carrying out the duties of the post in accordance with University policies, procedures, values and standards, including the Leadership and Management standard.

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 University Academic Fellow you will have:

- A PhD (or equivalent qualification) in a relevant field, for example Computer Science, Robotics, Electronic or Mechanical Engineering;
- Significant research expertise in vehicle automation;
- Evidence of the potential to secure significant external funding to support your research activity;
- A clear and compelling academic plan that will deliver academic and more general impact at an international level;
- A clear strategy to connect across the different research groups within the University;
- Significant proven research experience within the academic discipline with a developing record of internationally excellent publications;
- Experience of presenting at national and international conferences and/or symposia;
- Evidence of building strong working relationships within and, as appropriate, beyond your own discipline and to contribute to successful projects and collaborations;
- The potential and commitment to undertake high quality and innovative teaching and gain a higher education teaching qualification or award;

- Experience of delivering and engaging with student education where opportunities have existed;
- A high level of interpersonal and communication skills, and a strong ability to communicate effectively in writing and verbally with students, academic and external audiences;
- The ability to lead projects and organise, balance and prioritise work commitments.

You may also have:

- Experience of leading on projects and initiatives, including managing resources and conflicting priorities within challenging circumstances;
- A growing track record of successful and innovative teaching at both undergraduate and/or postgraduate level;
- Experience of involvement in postgraduate research supervision;
- Experience of working collaboratively with external partner organisations;
- Experience of mentoring in the workplace.

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

For any queries, please email: UAFSupport@leeds.ac.uk

To explore the post further, please contact:

Professor Natasha Merat, Research Group Leader for Human Factors and Safety

Tel: +44 (0)113 343 6614

Email: n.merat@its.leeds.ac.uk

Additional information

Find out more about the [Faculty of Environment](#).

Find out more about our [Institute](#).

Find out more about our [Research and associated facilities](#).

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

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.