CANDIDATE BRIEF

Research Fellow in Impact Assessment with Expert Systems, Institute for Transport Studies

Salary: Grade 7 (£32,548 – £38,833 p.a.) Due to funding limitations the post will be appointed at no higher than spine point 33, £35,550

Reference: ENVTR1066

Closing date: 1 July 2018

Fixed term until 31 August 2019 due to external funding

Open to job share or flexible working considerations

Research Fellow in Impact assessment with Expert Systems

Institute for Transport Studies (ITS)

Are you an ambitious researcher looking for your next challenge? Do you have a background in expert systems (e.g. fuzzy logic) and environmental impact assessment? Do you want to further your career in one of the UK's leading research intensive Universities?

ITS has been awarded the optiTruck project from H2020 which aims to create a global optimiser to reduce fuel consumption from heavy duty vehicles (http://optitruck.eu/). optiTruck is developing a set of dynamic prediction components for effective powertrain management in real time. One of the tasks in the optiTruck project is to develop an expert system model calibrated to the trials' conditions and results, and used to calculate the impacts of the optiTruck system for a variety of traffic and weather conditions, topologies and route choices, vehicle mass and types, and as well as optimisation settings. This model will also be used to simulate future scenarios (e.g. fully automatic powertrain calibration/ optimisation with real-time environment conditions, traffic data and load factors) so that the long-term impact with new trucks can be estimated. The impact assessment will also address the benefits in terms of environment protection and social aspects such as driver/fleet operator mentality shift.

You will work with and in support of Dr Chen's research to ensure project tasks are successfully completed, click here for further information. Primarily you will be working on the optiTruck project and additionally will support other projects as and when required. You will have a PhD in Transport and Environment focused on assessment and evaluation.

What does the role entail?

As Research Fellow, your main duties will include:

- Working with and in support of Dr Chen's research to ensure the optiTruck project is successfully completed. you may also support other projects as and when required;
- Generating and pursuing original research ideas in expert system modelling and simulation, impact assessment and scaling-up;
- Developing research objectives and proposals and contributing to setting the direction of the research project and team including, where appropriate 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;
- Communicating or presenting research results through publication or other recognised forms of output;
- Preparing papers for publication in leading international journals and independently writing reports;
- 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 research culture of the Institute, where appropriate;
- Contributing to the training of both undergraduate and postgraduate students, where appropriate, 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 Research Fellow you will have:

- A Degree in Transport, Engineering, or Computing Science (2.1 or above) followed by either a PhD (or be close to obtaining) in a relevant discipline or significant relevant work experience;
- A strong modelling background in expert systems, CBA, MCA;
- Experience in choice experiment surveys and stated Preference techniques;
- Excellent written and verbal communication skills including presentation skills and the ability to communicate effectively with a wide range of stakeholders;
- Proven ability to manage competing demands effectively, responsibly and without close support;
- A proven ability to work well both individually and in a team;
- A strong commitment to your own continuous professional development;
- A track record of successful, high quality publications in top journals (e.g. Transportation Research series);
- Good time management and planning skills, with the ability to meet tight deadlines and work effectively under pressure.

- You may also have:

- Good knowledge of database design;
- Experience with MATLAB, SPSS;
- Knowledge of ArcGIS;

- Knowledge of HTML and Java Programming;
- A good understanding of traffic modelling.

How to apply

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

Your application should include:

- a **supporting statement** evidencing how you believe your existing knowledge and experience equips you to carry out the role;
- a copy of your **curriculum vitae** giving full details of qualifications and experience.

Contact information

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

Dr Haibo Chen, Principal Research Fellow
Tel: +44 (0)113 343 5355
Email: H.Chen@its.leeds.ac.uk

Additional information

Working at Leeds

You can find out more about our generous benefits package and more about what it is like to work at the University and live in the Leeds area in our Working at Leeds information.

Candidates with disabilities

Information for candidates with disabilities, impairments or health conditions, including requesting alternative formats, can be found in our Accessibility information 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](#).