



UNIVERSITY OF LEEDS

## CANDIDATE BRIEF

**Research Fellow in Artificial Intelligence applied to Civil Engineering,  
Faculty of Engineering**



**Salary: Grade 7 (£32,548 – £38,833 p.a.)**

**Reference: ENGCV1063**

**Closing date: 12 October 2017**

**Fixed-term for 3 years**

**We will consider flexible working arrangements**

# Research Fellow in Artificial Intelligence applied to Civil Engineering

## School of Civil Engineering, Faculty of Engineering

AI will change the way we do everything in all walks of life, and Civil Engineering is not different. At Leeds we are leading the way in robotic applications to infrastructure and would like now to expand to artificial intelligence applications. Are you up for the challenge? Do you want to trail blaze the way into the field?

With an ever-expanding robotics and technological applications portfolio in the [School](#) and [University](#), we would like to expand into artificial intelligence (AI) to complement our skills set and promote new ideas and research. The university has world-known experts in the area in other Schools like [Prof David Hogg](#) and [Prof Anthony Cohn](#), who you could also interact with as part of this role, although the field of application will be Civil Engineering and Infrastructure.

Your work will centre on the development of AI applications in Civil Engineering and Infrastructure, and you will work in interdisciplinary teams of researchers involved with flagship projects such as [Self-repairing Cities](#) or [Shaking Tunnel Vision](#).

Holding a PhD (or close to completion) in Artificial Intelligence or a closely allied discipline, you will have a strong background in two of the following: Automated reasoning and inference, machine learning, multi-agent systems, decision support systems, reasoning under uncertainty, or imprecision.

### What does the role entail?

As a Research Fellow your main duties will include:

- Lead the development of AI applications in Civil Engineering and Infrastructure;
- Generating and pursuing independent and original research ideas in the appropriate subject area;
- Developing and submitting research proposals in collaboration with colleagues in the School and beyond in the University;
- 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 with national and international collaborators;
- Working both independently and also as part of a larger team of researchers, engaging in knowledge-transfer activities where appropriate and feasible;
- Attend and represent the School, Faculty and University at national and international events, including, but not limited to, Conferences;
- Carry out Consultancy, when appropriate, in consultation with Dr Fuentes;
- 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 area.

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 (or close to completion) in Artificial Intelligence or a closely allied discipline;
- A strong background in two of the following: Automated reasoning and inference, machine learning, multi-agent systems, decision support systems, reasoning under uncertainty, or imprecision;
- Ability, already developed through evidence, or demonstrated during the recruitment process, to work in a civil engineering setting with engineers.
- A proven track record of peer-reviewed publications in high impact factor journals commensurate with experience in the two fields chosen from the above list;
- Good time management and planning skills, with the ability to meet tight deadlines and work effectively under pressure;
- Excellent written and verbal communication skills including presentation skills;
- 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.

## 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:

**[Raul Fuentes](#), Pro-Dean International – Faculty of Engineering, and Associate Professor of Infrastructure Engineering, School of Civil Engineering.**

Tel: +44 (0)113 343 2282

Email: [r.fuentes@leeds.ac.uk](mailto:r.fuentes@leeds.ac.uk)

## Additional information

### Faculty and School Information

Further information is available on the research and teaching activities of the [Faculty of Engineering](#) and the School of [Civil Engineering](#).

### A diverse workforce

The Faculty of Engineering is proud to have been awarded the [Athena Swan Silver Award](#) from the Equality Challenge Unit, the national body that promotes equality in the higher education sector. Our [equality and inclusion webpage](#) provides more information.

### Working at Leeds

Find out more about the benefits of working at the University and what it's 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.

