



UNIVERSITY OF LEEDS

## CANDIDATE BRIEF

**Research Fellow in Mineral Waste Recycling in Construction Blocks,  
Faculty of Engineering and Physical Sciences**



**Salary: Grade 7 (£37,099 – £44,263 p.a.) Due to funding restrictions, an appointment will not be made higher than £41,732 p.a.**

**Reference: EPSCV1147**

**Location: Leeds (with scope for hybrid working)**

**Closing date: Wednesday 07 August 2024**

**Fixed term until 31 March 2025, with the possibility of an extension**

**We are open to discussing flexible working arrangements**

# **Research Fellow in Mineral Waste Recycling in Construction Blocks, School of Civil Engineering.**

**Do you hold a PhD in the area of recycling mineral industrial waste (i.e. fly ash, steel slag) for use in cementitious materials? Are you looking to kick start your research career in one of the UK's leading research-intensive universities?**

The shift in steel production in the UK towards the low-carbon Electric Arc Furnace (EAF) processes is accompanied with an increase in the EAF slag generated for which currently only limited use exists as low-value recycling in backfilling and road embankments.

The selected candidate will lead experimental work between the University of Leeds and industrial partners, aiming to characterise the EAF slag generated at UK steel factories, activating it for use as a binder in non-load bearing construction products, and finally optimizing the mix design to fit the industry specifications of the desired products. The project is in collaboration with a major UK steel producer and a major EU construction material producer.

## **What does the role entail?**

As a Research Fellow, your main duties will include:

- Carrying out the characterisation of raw materials, materials processing and testing of the designed cementitious product mix;
- 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 research;
- Making a significant contribution to the dissemination of research results by publication in leading peer-reviewed journals and by presentation at national and international meetings;





- Working independently and as part of a larger team of researchers, both internally and externally, to develop new research links and collaborations and engage in knowledge transfer activities where appropriate;
- 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 (or have submitted your thesis before taking up the role) in Civil Engineering or Materials Science or a closely allied discipline;
- A strong background in mineral waste processing and concrete testing;
- Experimental skills including mineral waste characterization, activation and testing;
- Good time management and planning skills, with the ability to meet tight deadlines and manage competing demands effectively without close support;
- A developing track record of peer-reviewed publications in international journals;
- Excellent communication skills both written and verbal, and the ability to communicate your research at national and international conferences;
- A proven ability to work well both independently 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.



## 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. Hisham Hafez](#), Research Fellow**

Tel: +44 (0)113 343

Email: [H.Hafez@leeds.ac.uk](mailto:H.Hafez@leeds.ac.uk)

## Additional information

### Faculty and School Information

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

### A diverse workforce

As an international research-intensive university, we welcome students and staff from all walks of life and from across the world. We foster an inclusive environment where all can flourish and prosper, and we are proud of our strong commitment to student education. Within the Faculty of Engineering and Physical Sciences we are dedicated to diversifying our community and we welcome the unique contributions that individuals can bring, and particularly encourage applications from, but not limited to Black, Asian and ethnically diverse people; people who identify as LGBT+; and people with disabilities. Candidates will always be selected based on merit and ability.

The Faculty of Engineering and Physical Sciences are 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

We are a campus-based community and regular interaction with campus is an expectation of all roles in line with academic and service needs and the requirements of the role. We are also open to discussing flexible working arrangements. To find out more about the benefits of working at the University and what it is like to live and work in the Leeds area visit our [Working at Leeds](#) information page.

## Information for disabled candidates

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

## Salary Requirements of the Skilled Worker Visa Route

**Please note** that this post may be suitable for sponsorship under the Skilled Worker visa route but first-time applicants might need to qualify for salary concessions. For more information, please visit: [www.gov.uk/skilled-worker-visa](http://www.gov.uk/skilled-worker-visa).

For research and academic posts, we will consider eligibility under the Global Talent visa. For more information, please visit: <https://www.gov.uk/global-talent>.

