



UNIVERSITY OF LEEDS

CANDIDATE BRIEF

Research Fellow in Climate Change Mitigation and Sanitation,
Faculty of Engineering & Physical Sciences



Salary: Grade 7 (£33,797 – £40,322 p.a.) Due to funding restrictions, an appointment will not be made higher than £38,017 p.a.

Reference: EPSCV1035

Closing date: Monday 10th May 2021

Fixed-term for 22 months

We will consider job share and flexible working arrangements

Research Fellow in Climate Change Mitigation and Sanitation, School of Civil Engineering.

Are you an enthusiastic and motivated researcher with an interest in the global sanitation and climate change challenges facing society and the environment? Would you like to be a key part of a large international team researching and communicating information about global greenhouse gas emissions from sanitation systems? Are you interested in the opportunity to gain experience working with UK lead researchers and multiple partners overseas?

As part of the £1.15 million Climate Change and Sanitation; Assessing Resilience and Emissions (SCARE) which is a three year project funded by the Bill and Melinda Gates Foundation, you will contribute to field and laboratory based experimental work designed to estimate the performance of typical on-site sanitation systems with respect of greenhouse gas emissions. Fieldwork will take place in the UK, Ethiopia, Nepal, Senegal and Uganda. SCARE is led by the University of Bristol, in collaboration with: the University of Leeds; University of Technology Sydney; Kathmandu University, Nepal; Bangladesh University of Engineering and Technology; Haramaya University, Ethiopia; Kuambogo University, Uganda; and the Global Green Growth Institute.

Holding a PhD (or close to completion) in a relevant discipline such as Civil, Chemical or Process Engineering, you will have research experience in experimental measurement of wastewater processes including emissions, you will deal independently with a wide range of people, in a number of different international settings, support existing research and lead new research. You will possess excellent analytical and writing skills and the ability to deal with a variety of tasks to set deadlines. The ability to work alone or as part of a multicultural and transdisciplinary team are essential, along with strong organisational skills.

You will be based at the University of Leeds and it is anticipated that you will need to visit partners in all four international countries as part of your role. The post will be jointly supervised between [Professor Barbara Evans](#), and [Dr Miller Alonso Camargo-Valero](#) from the School of Civil Engineering.



What does the role entail?

The overall objective of the role is to contribute to the measurement of greenhouse gasses from a range of typical sanitation installations. This will include the selection, deployment and use of field and laboratory scale monitoring equipment in selected locations and the development of laboratory and field scale experiments designed to improve our understanding of operational conditions and their impact on emissions. Field work will be focused in Nepal, Ethiopia, Uganda and Senegal. In a second phase of the project the successful candidate will provide scientific and technical support to partner organisations in Ethiopia and Uganda to further develop and roll out experimental methods.

As a Research Fellow, your main duties will include:

- Working with and in support of Professor Evans in the management, implementation and delivery of the University of Leeds elements of the SCARE project;
- Work closely with Professor Evans and Dr Camargo-Valero to oversee and contribute to joint working of project partners involved in the observation and modelling of greenhouse gas emissions including active participation in the mitigation sub-group of the SCARE project;
- Lead on the development and deployment of field-based and lab-based observations of GHG emissions from sanitation installations in Yorkshire to finalise and refine emissions models and experimental methods
- Liaise with the mitigation sub group (initially with colleagues in Nepal) to design and roll out a campaign of field-based observations including the design of appropriate experiments and observational studies on in-situ installations.
- Contribute and in some cases lead, the preparation of academic outputs relating to the laboratory and field-scale experiments;
- Lead on the design of a replication campaign to roll out field-level observations with project partners in Ethiopia, Senegal and Uganda – the exact timing and details of this will be developed by the mitigation sub group;
- Generating and pursuing independent and original research ideas in the area of sanitation related greenhouse gas emissions;
- Preparing papers for publication in leading international journals and independently writing reports;



- Communicating or presenting research results through publications or 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 occasional research-led teaching activities and 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 close to completion) in a relevant discipline such as Civil, Chemical or Process Engineering;
- Lab and/or field based experience of experimental measurements associated with sanitation and/or wastewater processes;
- Practical experience in laboratory experimentation;
- A demonstrable understanding of the processes that take place in sanitation systems, particularly under anaerobic and aerobic processes that are typical of onsite sanitation systems such as pit latrines and tanks (this element could be assessed at interview);
- Good time management and planning skills, with the ability to meet tight deadlines, manage competing demands and work effectively under pressure without close support;
- Some experience of report writing or peer-reviewed publications in journals;
- 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.



You may also have:

- Experience of pursuing external funding to support research;
- Web based or other visualisation experience (such as utilising JavaScript libraries);
- An awareness of the global challenges related to sanitation or other development sectors and evidence of a personal interest in helping to address these;
- Some experience in working with external project partners, ideally in an international context.

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 Miller Alonso Camargo-Valero](#), Director of Research and Innovation

Email: M.A.Camargo-Valero@leeds.ac.uk

[Professor Barbara Evans](#), Chair in Public Health Engineering

Email: B.E.Evans@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

The Schools in the Faculty of Engineering & Physical Sciences are proud to have been awarded the Athena SWAN [Bronze or 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 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.

Please note: If you are not a British or Irish citizen, from 1 January 2021 you will require permission to work in the UK. This will normally be in the form of a visa but, if you are an EEA/Swiss citizen and resident in the UK before 31 December 2020, this may be your passport or status under the EU Settlement Scheme.

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.

