



UNIVERSITY OF LEEDS

CANDIDATE BRIEF

Research Fellow in Deformation Modelling, Faculty of Environment



Salary: Grade 7 (£33,797 – £40,322 p.a.)

Please note, due to funding limitations, an offer will not be made above £34,804 p.a.

Reference: ENVEE1432

Fixed-term until 31 December 2023

We will consider job share / flexible working arrangements

Research Fellow in Deformation Modelling

School of Earth and Environment, Faculty of Environment

Are you an ambitious researcher looking for your next challenge? Do you have a background in deformation modelling? Do you want to further your career in one of the UK's leading research intensive universities?

We are seeking a Post-doctoral Research Fellow to join the European research project DEEPVOLC: Forecasting Volcanic Activity Using Deep Learning. We are looking for an enthusiastic, highly numerate scientist who will develop models to simulate surface deformation for various geophysical processes occurring at volcanoes, to build up training datasets. There will be potential to develop research beyond this goal, depending on specific research outcomes or interests.

You will work alongside other researchers in the DEEPVOLC team, which aims to use data on how volcanoes behave globally to automatically identify, and forecast, deformation at volcanoes locally. You will have a PhD in geophysics, engineering, mathematics, computer science or a related discipline, excellent communication skills, and the ability to work as part of a team. You will participate in all the project meetings and be expected to actively contribute to outreach and training activities as required. You will be expected to publish research papers and to present your research at national and international meetings.

What does the role entail?

As a Research Fellow, your main duties will include:

- Developing models to simulate time series of deformation associated with magmatic processes at volcanoes, such as pressurisation of magma bodies and injection of sills and dikes;
- Developing models to simulate time series of deformation associated with non-magmatic processes at volcanoes, such as landslides, fault movement and changes in hydrothermal systems;
- Contributing to joint discussions with the wider DEEPVOLC research group, and actively participating in team meetings;
- Planning and managing own research activity in collaboration with others and within the strategy identified for the project team as a whole;
- Contributing to the research culture of the Institute, where appropriate;



- Generating and pursuing independent and original research ideas in the appropriate subject area;
- Preparing papers for publication in leading international journals and disseminating research results through other recognised forms of output;
- Presenting work at national and international conferences, meetings and workshops;
- 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.

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 in physics, geophysics, engineering, mathematics, computer science or a related subject;
- Experience in modelling deformation associated with geophysical processes;
- Experience in scientific computer programming using languages such as Python, FORTRAN, C or Matlab;
- Enthusiasm for problem solving;
- A strong commitment to your own continuous professional development.
- Excellent written and verbal communication skills, including presentation skills;
- Good time management and planning skills, with the ability to meet tight deadlines, manage competing demands and work effectively under pressure without close support;
- A proven ability to work well both individually and in a team.

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:

[Professor Andy Hooper](#), Professor of Geodesy and Geophysics

Email: a.hooper@leeds.ac.uk

Additional information

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

Find out more about the [School of Earth and Environment](#).

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

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

A diverse workforce

The Faculty of Environment has received a prestigious Athena SWAN silver award from [Advance HE](#), the national body that promotes equality in the higher education sector. This award represents the combined efforts of all schools in the Faculty and shows the positive actions we have taken to ensure that our policies, processes and ethos all promote an equal and inclusive environment for work and study.

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.

