



UNIVERSITY OF LEEDS

## CANDIDATE BRIEF

Research Fellow in InSAR Processing and Volcano Deformation, Faculty of Environment



**Salary: Grade 7 (£39,105 – £46,485 p.a. depending on experience)**

**Reporting to: Professor Andrew Hooper**

**Reference: ENVEE1785**

**Fixed term until 31 January 2026 to complete specific time limited work**

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

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

# Research Fellow in InSAR Processing and Volcano Deformation, School of Earth and Environment, Faculty of Environment

## Overview of the Role

**Are you an ambitious researcher with skills in machine learning, and looking for your next challenge? 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 apply InSAR to Sentinel-1 data to image volcano deformation globally. 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 or a related discipline, good communication skills, and the ability to work as part of a team.

You will participate in all 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.

## Main duties and responsibilities

- Developing a system to build and update a database of volcano deformation using Sentinel-1 SAR data, which can be applied globally;
- 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;





- 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 work;
- Preparing papers for publication in leading international journals and disseminating research results through 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 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.

## Qualifications and skills

### Essential

- A PhD or near completion in geophysics or a related subject;
- A strong background in InSAR time series processing;
- A strong background in applying InSAR to measure volcanic deformation;
- Experience in scientific computer programming using Python;
- Enthusiasm for problem solving;
- Good time management and planning skills, with the ability to meet tight deadlines, manage competing demands and work effectively under pressure without close support;
- Excellent written and verbal communication skills, including presentation skills;
- A proven ability to work well both individually and in a team;
- A strong commitment to your own continuous professional development.



## Desirable

- A proven track record of publications in recognised journals within your field.

## **Additional information**

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.

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](https://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>

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

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

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

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

## **Our University**

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 Environment 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 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**

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.

### **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.

