



UNIVERSITY OF LEEDS

CANDIDATE BRIEF

**Research Assistant in Modelling Viscoelastic Fabric Materials,
Faculty of Engineering and Physical Sciences**



Salary: Grade 6 (£31,396 – £37,099 pro rata p.a.)

Reference: EPSME1180

Location: Leeds campus (with scope for hybrid working)

Closing date: Sunday 06 October 2024

Part time, 18.75 hours per week

Fixed-term for up to 6 months (to end by 31 March 2025)

We are open to discussing flexible working arrangements

Research Assistant in Modelling Viscoelastic Fibric Materials, School of Mechanical Engineering.

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

This post is part of a team associated with an EPSRC Standard Grant, titled '*STOP fibrous microplastic pollution from textiles by elucidating fibre damage and manufacturing novel textiles (EP/T024542/1)*', and is a three-year study to understand the fundamental mechanisms of microplastic emission from textiles. We are most of the way through the grant and a short-term post has arisen to contribute to the research and, to work with the existing research team with the promotion of impact and outputs. The grant is held jointly between the University of Leeds and Edinburgh.

Holding an undergraduate degree in Engineering, Physics or a relevant discipline; you will have a background in tribology/contact mechanics research, skills coding and using software for numerical simulations.

What does the role entail?

As a Research Assistant, your main duties will include:

- Contributing to the development of contact mechanics and degradation models for the viscoelastic materials especially materials used in textiles;
- Supporting the delivery of research on computational aspects of friction, contact mechanics and wear, and collaborating (where appropriate) with group sponsors and co-workers;
- Working as part of the project consortium to link model development with experimental measurements and concurrent research programmes;
- Supporting research activities, including contributing to research results and outputs and to the generation of original ideas, ensuring a successful programme of investigation;
- Collating and analysing data to inform the direction and progression of the research project;
- Writing reports, undertaking literature reviews and preparing papers for publication, with guidance as necessary;



- Contributing to regular project update reports and presentations to peers, academic supervisors, and project sponsors at review meetings and national and international conferences and meetings;
- Participating in the research group and presenting research output where appropriate;
- Working both independently and as part of a larger team of researchers and stakeholders;
- Contributing to the research culture of the School, where appropriate;
- Continually updating your knowledge, understanding and skills in the research field.

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 Assistant, you will have:

- An undergraduate or Masters degree in Engineering, Physics or a closely allied discipline;
- A strong background in tribology/contact mechanics research;
- Evidence of skills in coding and use of software for numerical simulations (e.g. MATLAB, Python, Ansys, Abaqus, etc.);
- Good interpersonal and communication skills, both written and verbal and the ability to communicate effectively with a wide range of stakeholders;
- Well-developed analytical skills;
- Good time management and planning skills, with the ability to meet tight deadlines;
- A proven ability to work well both independently and in a team;
- The ability to work accurately, unsupervised and use your own initiative.

You may also have:

- A PhD (or close to completion) in Engineering, Physics or a closely allied discipline;
- Experience of contributing to the writing of papers for publication;



- Experience of developing contact mechanics and wear computational models for solids or viscoelastic materials or a background in solid mechanics modelling.

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 Greg de Boer](#), Associate Professor

Tel: +44 (0)113 343 2607

Email: G.N.deBoer@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 Mechanical 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

Salary Requirements of the Skilled Worker Visa Route

Please note that due to Home Office visa requirements, this role may only be suitable for first-time Skilled Worker visa applicants if they are eligible for salary concessions. For more information, please visit: 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>.

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.

