



UNIVERSITY OF LEEDS

CANDIDATE BRIEF

Research Fellow in Liquid Crystals for Augmented Reality and Virtual Reality (Physics), Faculty of Engineering and Physical Sciences



Salary: Grade 7 (£41,064 – £48,822 p.a.) Due to funding restrictions, an appointment will not be made higher than £42,254 p.a.

Reporting to: Dr Mamatha Nagaraj

Reference: EPSPA1130

Closing date: Monday 15 September 2025

Fixed-term (until 30 September 2029 - to complete specific time limited work)

Location: Leeds Main Campus

We are open to discussing flexible working arrangements

Research Fellow in Liquid Crystals for Augmented Reality and Virtual Reality (Physics), School of Physics and Astronomy.

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

Overview of the Role

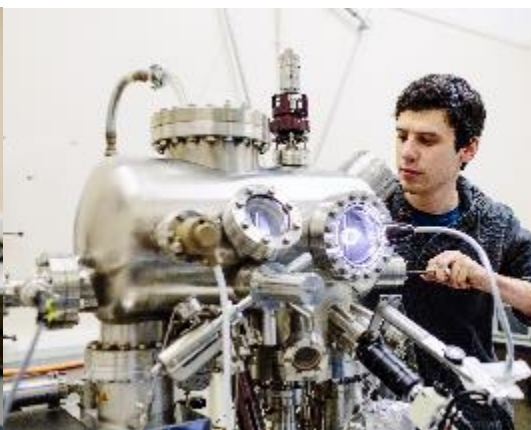
You will join a collaborative programme with Merck Electronics KGaA, a world-leading company working in liquid crystals. You will work with a team of scientists from the company along with [Dr Mamatha Nagaraj](#), [Prof Helen Gleeson](#), [Prof Gordon Love](#), and [Dr Richard Mandle](#) and at the University of Leeds.

You will have an PhD degree (or have submitted your thesis before taking up the role) and research experience in experimental Physics and/or Engineering, along with significant experience in experimental aspects of liquid crystal optics, liquid crystal physics, electro-optics, active and passive device fabrication and modelling or related areas.

You will focus on a range of liquid crystal-based technologies and work on the optics, design, fabrication, optimisation, modelling and characterisation of liquid crystal devices. In addition to carrying out a series of research projects, you will be an excellent communicator, responsible for day-to-day interactions with the company, writing papers, contributing to patent applications and making presentations. You will travel regularly to the company's premises in the UK and Germany.

Main duties and responsibilities

- Designing, planning and carrying out the experimental and theoretical work needed to accomplish the aims of the project, in consultation with the academic leads;
- Contributing to, and encouraging, a safe working environment;
- Being the first point of contact for researchers in the partner laboratories relevant to each project;



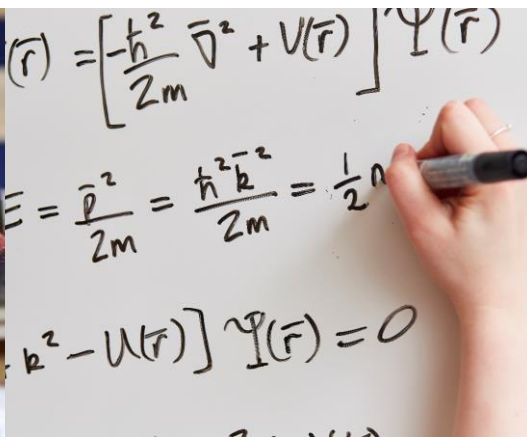
- Generating and pursuing original research ideas in the appropriate subject area;
- Developing research objectives and proposals and contributing to setting the direction of the research project and team including preparing proposals for funding in collaboration with colleagues;
- Evaluating methods and techniques used and results obtained by other researchers and relating such evaluations to your own research;
- Making a significant contribution to the generation of intellectual property and the dissemination of research results, by publication in leading peer-reviewed journals, and by presentation at national and international scientific meetings;
- Working independently and as part of a larger team of researchers, both internally and externally, to develop new 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.

Qualifications and skills

Essential

- A PhD (or have submitted your thesis before taking up the role) or equivalent in experimental Physics, Engineering or a closely allied discipline;
- A strong background in experimental optics and optical devices;
- Direct experience of liquid crystal optics and device physics with significant experience in experimental techniques relevant to liquid crystal research;
- A developing track record of peer-reviewed publications in international journals;
- Experience of working in an interdisciplinary environment or with industrial collaborators;



- The ability to design and execute research independently and initiative to explore new ideas and contribute to the development of the research, both conceptually and in practice;
- Good time management and planning skills, with the ability to meet tight deadlines and manage competing demands effectively without close support;
- 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.

Desirable

- Experience of pursuing external funding to support research;
- Skills in computing, both in writing software to control experimental apparatus and numerical analysis and simulation or modelling of materials and/or optics and devices;
- Experience in thin film coatings and in clean room techniques such as photolithography or nano-imprint lithography;
- The ability to mentor and act as a role model for postgraduate researchers.

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:

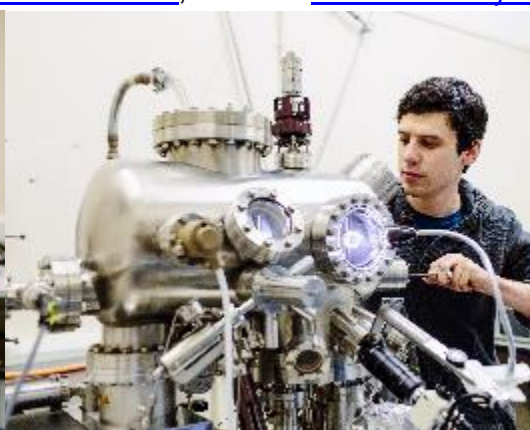
[Dr Mamatha Nagaraj](#), Lecturer

Email: M.Nagaraj@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 Physics and Astronomy](#).



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.

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.

Information for disabled candidates

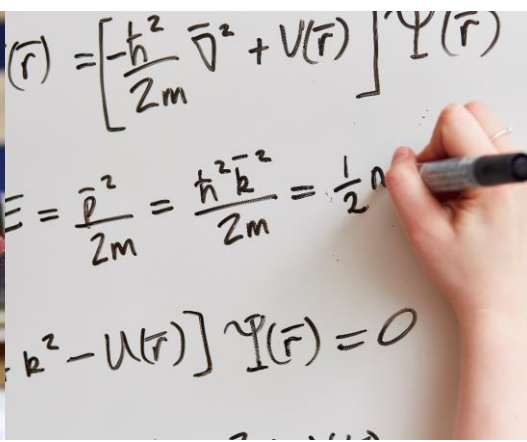
Information for disabled candidates, impairments or health conditions, including requesting alternative formats, can be found under the 'Accessibility' heading on our [How to Apply](#) information page or by getting in touch by emailing HR via hr@leeds.ac.uk.

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 [the Government's Skilled Worker visa page](#).

For research and academic posts, we will consider eligibility under the Global Talent visa. For more information, please visit [the Government's page, Apply for the Global Talent visa](#).

