UNIVERSITY OF CAMBRIDGE

Technical Specialist (Whittle Laboratory)

Department of Engineering

CLOSING DATE: 22 November 2026
Job Reference: NM50348









Race Equality Charter Bronze Award

We are a Living Wage Employer

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Athena SWAN Silver Award

Technical Specialist (Whittle Laboratory)

Salary:
£36,320- £46,970

Contract:
Fixed-term for five years in the first instance.

Location:
Whittle Laboratory
1 JJ Thomson Avenue
Cambridge
CB3 0DY

Faculty / Department:
Engineering

Responsible to:
Whittle Laboratory Manager

Working Pattern:
Full-time



Purpose of the role

The Whittle Laboratory in West Cambridge is a purpose-built facility for the development of aeroengine and associated technologies. The Laboratory contains highly sophisticated experimental facilities; these include a 1MW variable density wind tunnel, more than 15 rotating turbine and compressor test facilities and a range of new heat transfer tunnels. The Whittle Laboratory supports a range of experimental measurement capabilities; these include laser anemometry, infrared cameras, hot-wires and gas sampling equipment.

The Whittle laboratory leads in the field of accelerated research and technology development, and is the National Centre for Propulsion and Power. In these experiments, advanced and turbomachinery-specific CNC techniques (for rapid blade and test rig machining) have been developed by a close partnership between technicians and researchers. The skills of the Whittle Laboratory technicians, particularly high-quality turbomachinery related CAD-CAM skills, are critical to future of the Lab and its ability to decarbonise the propulsion and power sectors.

Additionally, the role-holder will be expected to engage with and support staff, students and external companies in the design and manufacture of highly specialist equipment and apparatus, and to develop and deploy specialist manufacturing techniques and machining methods to enable rapid research turnarounds. The role-holder will schedule and assign workload to the Whittle Laboratory technicians to meet project delivery deadlines, as well as provide cover for the Laboratory Manager during periods of absence.

Key responsibilities

- Develop analytical methods and techniques to support the effective use of the facility by research groups. Keep up to date and informed of advancements in manufacturing to identify new techniques and methods for introduction to the facility. Contribute as requested to peer reviewed publications and presentations.
- Management of technical resources within the facility. Operate and maintain specialist equipment, upgrade equipment as required in response to changing requirements and advances in technology. Lead in the assessment of equipment failures, quality assurance of equipment bought in and made in house. Routine inspection and maintenance of equipment, testing and tuning of the instruments to keep them operating at or above manufacturers specification.
- Provide highly specialist advice on manufacturing techniques to contribute to the development of propulsion and power systems. Work with research groups to use results to make changes to experimental equipment and methods.
- Contribute to planning of joint research projects. Discuss objectives and progress of various research projects, provide critical and constructive comments during meetings and 1:1 interaction with research staff, raise any concerns about scientific results or research conducted as necessary.

Key responsibilities (continued)

- Support the local Safety officer in ensuring safe operation of equipment/apparatus. Review and draw up risk assessments for processes, document safety procedures, advise staff, research students and others when new safety procedures are developed. Advise the Whittle Laboratory on safety considerations on experiments undertaken.

- Responsibility for training and induction of new research and technical staff, and students. , Ensure that staff, visitors and students are properly and safely trained in activities undertaken by the laboratory. Train users in the use of instruments/apparatus, provide training in research techniques and methodologies to staff.

- Responsible for the specification and supply of chemicals/consumables and equipment, agree joint purchasing with their manager/ research group. Provide input into the purchase of high value equipment for the facility.

- Manufacture specialist components using both conventional and CNC machining techniques. Develop new methods of manufacture, including holding fixtures and novel tooling to produce developmental components with complex geometries and very high tolerance requirements. Including milling, turning and grinding.

- Schedule and assign workload to the Whittle Laboratory technicians to meet project delivery deadlines. The role-holder will provide cover for the Laboratory Manager during periods of absence.

Person Specification

Criteria	Essential	Desirable
Education		
Degree in a relevant research area/ Level 6 vocational qualifications or equivalent level of practical experience	✓	
Skills		
Specialist knowledge and skills in conventional and CNC machining	✓	
Good knowledge of specialist manufacturing software (CAD/CAM)	✓	
Ability to operate specialist experimental equipment	✓	
Strong written and verbal communication skills	✓	
Demonstrate advanced knowledge of research technical work involving a critical understanding of relevant theory and/or principles (machining)	✓	
Experience		
Practical experience of specialised workshop activities and equipment	✓	
Experienced in conventional and CNC machining techniques	✓	
Experience of dealing with a variety of research projects and communicating research results to a wide variety of audiences	✓	
Experience of implementing health and safety requirements within a research environment	✓	
Experience of providing training to groups and on a 1:1 basis	✓	
Additional Requirements		
Experience in motivating and mentoring of staff members		✓

Professional Services Values

Developed by professional services staff, our values underpin everything we do. By living the values in the work we do, we hope to foster an environment where staff feel empowered. The values encourage staff to; work together and share skills to create a sense of community, act with integrity, take an inclusive and fair approach and develop honest and open relationships that are underpinned by our shared values. We encourage applicants to consider these values within their application.



The Department of Engineering

The Department of Engineering is the largest department in the University of Cambridge, representing approximately 10% of the University's activities by the majority of common metrics, and is one of Europe's largest integrated engineering departments. It achieves the highest standards in both research and teaching. Its international reputation attracts the best students, academics, sponsors and partners from around the world. The Department is accommodated on two sites; one in central Cambridge and four satellite buildings in West Cambridge.

The Department seeks to benefit society by creating world-leading engineering knowledge that fosters sustainability, prosperity and resilience. We share this knowledge and transfer it to industry through publication, teaching, collaboration, licensing and entrepreneurship. By integrating engineering disciplines in one department, we can address major challenges and develop complete solutions, serving as an international hub for engineering excellence.

The Department is committed to promoting gender equality as part of a landscape of encouraging diversity, tolerance and a culture of mutual support. The dedicated Diversity Committee oversees equality, diversity and inclusion related activities in the Department, and holds regular events to promote Engineering to under-represented groups. The Department was first granted an Athena SWAN Silver Award in 2017, which was renewed in September 2020 to recognise the Department's ongoing commitment to advancing the careers of women in STEMM. The Department of Engineering continues to make excellent progress towards achieving gender balance amongst its staff and students. More information on the Athena SWAN Charter can be found here.

The Department has six Academic Divisions and two Services Divisions as follows:

Academic Divisions	Division A – Acoustics, Energy, Fluid Mechanics and Turbomachinery
	Division B – Electrical Engineering
	Division C - Mechanics, Materials and Design
	Division D – Civil, Structural and Environmental Engineering with Sustainable Development
	Division E – Manufacturing and Management
	Division F – Information Engineering
Services Divisions	Division V – HR Office, Postgraduate Office, Teaching Office (including Faculty Board and Exams), Finance Office, Library, Building and Estate Services, Information and Computing Services Division W – Design and Technical Services

The size and two site location means it is especially important to have an effective organisational structure in place. All staff are assigned to the appropriate Academic or Support Service Division on appointment so that the line of management responsibility is clear and this role is part of Division A.

More information on the Department can be found at www.eng.cam.ac.uk.

The School of Technology

The School of Technology is one of six academic Schools at the University of Cambridge. The School brings together departments and institutes working at the forefront of technological and societal progress, including the Department of Engineering, Department of Chemical Engineering and Biotechnology, Cambridge Institute for Sustainability Leadership, Cambridge Judge Business School, and the Department of Computer Science and Technology.

Dedicated to benefitting society through advancing the frontiers of technology and the economies and enterprises into which it is deployed, we deliver outstanding education, conduct world-class research, and foster discovery and innovation. We support students, staff, industry, and society by nurturing talent, promoting individual enterprise, and building partnerships that benefit society.

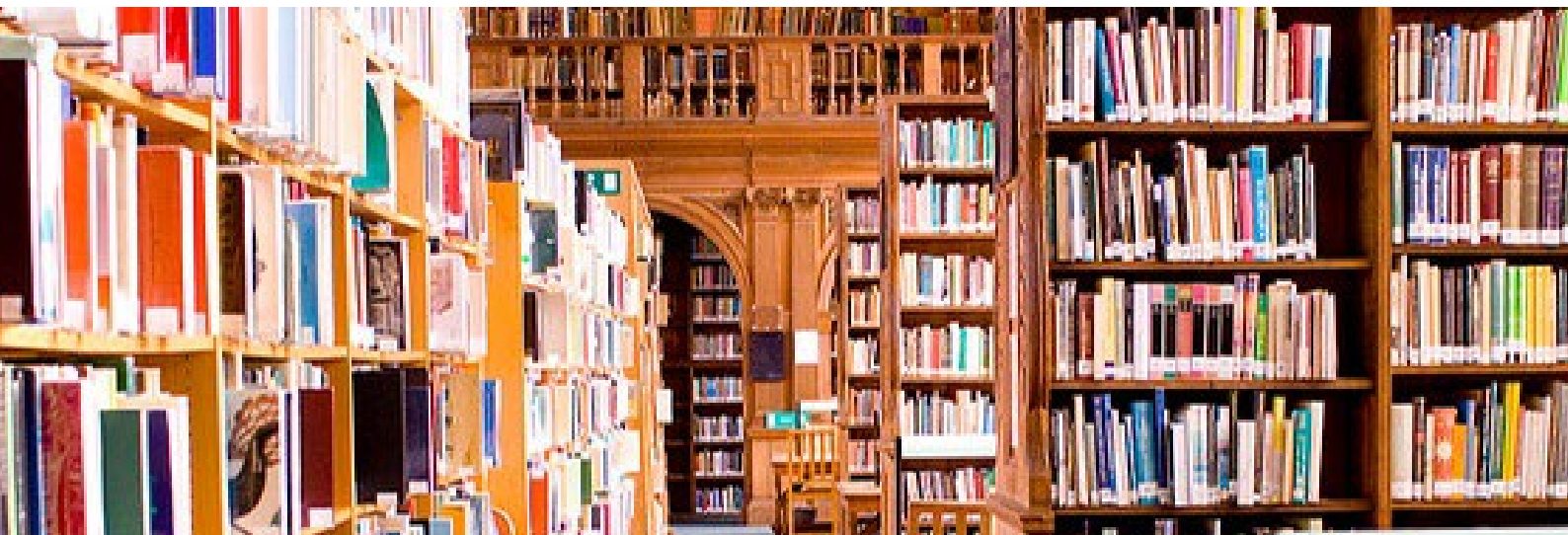
We strive to continue to be a global leader in education, research, and innovation, inspiring a diverse community of staff, students, alumni, and external partners that drives technological progress and societal impact. Building on the fundamental underpinning technologies that we work on, we envision a future where our commitment to excellence and collaboration empowers individuals and industries to meet complex challenges and shape a better world.

Our four strategic research themes – **Sustainable Future**, **Health and Wellbeing**, **Increased Competitiveness**, and **Security and Resilience** – guide interdisciplinary collaboration and reflect our ambition to address some of the most pressing global challenges through technological innovation.

We are proud to foster a welcoming, inclusive, and supportive environment where people from all backgrounds can thrive. We value diversity and promote equal opportunities, recognising that a wide range of experiences and perspectives strengthens our community and our work. International staff are a vital part of our success, and we aim to support all new colleagues in their transition to life and work in Cambridge. Our staff benefit from access to outstanding resources, a vibrant global academic community, and a wide range of personal and professional development opportunities.

The School plays a key strategic role in supporting its departments, allocating resources, shaping academic and financial planning, and advancing initiatives in research, infrastructure, education, and engagement. The School Office, led by the Head and Secretary of the School, supports governance, coordination, and services across departments.

For more information about the School and its departments, please visit:
https://www.tech.cam.ac.uk/



Terms of Appointment

Tenure and probation
Appointment will be made on a fixed-term basis for five years in the first instance as an appointment to this post relies on the availability of finite funds for a specific purpose that are not part of the University's general revenues. The appointment will be subject to the satisfactory completion of a six-month probationary period.

Hours of Work and Working Pattern
This is a full-time post.

There are no formal conditions relating to hours and times of work, but you are expected to work such hours and days as are reasonably necessary for the proper performance of your duties. Your times of work should be agreed between you and your head of institution.

Pension
You will automatically be enrolled to become a member of USS (Universities Superannuation Scheme) – a hybrid pension scheme. For further information please visit: www.pensions.admin.cam.ac.uk/

Annual leave
Full time employees are entitled to annual paid leave of 41 days inclusive of public holidays.

General information

Pre-employment checks

Right to work in the UK
We have a legal responsibility to ensure that you have the right to work in the UK before you can start working for us.

If you do not have the right to work in the UK already, any offer of employment we make to you will be conditional upon you gaining it.

Health declaration Once an offer of employment has been made the successful candidate will be required to complete a work health declaration form.

Qualifications
The person specification for this position lists qualifications that are essential and/or desirable. Please note that if you are offered the post you will be asked to provide your relevant original certificates of these qualifications.

References
Offers of appointment will be subject to the receipt of satisfactory references.

Information if you have a disability
The University welcomes applications from individuals with disabilities. We are committed to ensuring fair treatment throughout the recruitment process. We will make adjustments to enable applicants to compete to the best of their ability wherever it is reasonable to do so and, if successful, to assist them during their employment. Information for disabled applicants is available at http://www.admin.cam.ac.uk/offices/hr/staff/ disabled/

We encourage you to declare any disability that you may have, and any reasonable adjustments that you may require, in the section provided for this purpose in the application form. This will enable us to accommodate your needs throughout the process as required. However, applicants and employees may declare a disability at any time.

If you prefer to discuss any special arrangements connected with a disability, please contact, the HR who are responsible for recruitment to this position, on 01223 332615 or by email on hr-office@eng.cam.ac.uk

The University

The University of Cambridge is consistently ranked one of the best universities in the world, achieving academic excellence through its Faculties, Departments and other Institutions, together with the 31 Colleges.

The University is renowned for its record of discovery and innovation. It is one of the great institutions, with a regional, national and global reach, attracting the very best and brightest minds. Our staff and students shape the world around us for the better: we attract and partner with like-minded people.

Whether contributing to the development of new anti-cancer drugs, adding to the understanding of how black holes are formed, revolutionising the study of ancient settlements, convening academic expertise to offer solutions to the climate crisis, or analysing public attitudes towards democracy around the world, the University's research is remarkable in its breadth, quality and impact. The University also sits at the heart of Europe's largest technology cluster and has catalysed more than 1,500 high-tech companies. And yet what inspires our 24,000 students and 13,000 staff is not what has already been achieved, but what is possible in the future.

The education and experience of our students, based on a partnership between the University's academic Departments and Faculties and the 31 Colleges, is second to none. Every student is a member of one of the Colleges, each a community of students, academics and staff drawn from across the University's comprehensive range of subject areas.



The University is a self-governing community, with a system for decision-making that provides a high degree of accountability and transparency to its members. Each Department and Faculty is part of one of six academic Schools, but each of them, and each individual academic, has a great deal of autonomy. The Colleges are independent and self-governing, working in a symbiotic relationship with the University.

The University has a number of Institutions that are independent of any Faculty or Department and are not part of the academic Schools. These include the Institute of Continuing Education (which provides high-quality education to adults throughout their lives), the Fitzwilliam Museum, Kettle's Yard (an historic house and gallery that holds important collections of modern art) and the University Library. In addition to their diverse contributions to University and public life, these non-School Institutions are also important centres of teaching and research.

Cambridge University Press & Assessment provides academic publishing, examinations and learning materials worldwide, supporting the dissemination of research, academic development at school and in higher education, and international student mobility. Legally, the Press & Assessment is a department of the University. It provides very important funds to invest in the academic purposes of the University.

The University has made truly remarkable contributions to the sum of human understanding, with breakthrough ideas and discoveries that have changed the way we understand ourselves, our planet, and the universe around us. Yet the global and national contexts in which it operates are fast-changing and increasingly filled with uncertainty. In a world that is becoming - politically, economically, socially, and technologically – ever more interconnected but even less equal, the University's mission – "to contribute to society through the pursuit of education, learning and research at the highest international levels of excellence" – has never been more relevant.



About Us

The University is one of the world's leading academic centres. It comprises 150 faculties and departments, together with a central administration and other institutions. Our institutions, museums and collections are a world-class resource for researchers, students and members of the public representing one of the country's highest concentrations of internationally important collections.

The University has an annual income of £2 billion. Research income, won competitively from the UK Research Councils, the European Union (EU), major charities and industry, exceeds £500 million per annum and continues to grow.

The Colleges and the University remain committed to admitting the best students regardless of their background and to investing considerable resources both in widening access and financial support. The 31 Colleges are self-governing, separate legal entities which appoint their own staff. Many academic staff are invited to join a College as a Teaching Fellow, which provides a further social and intellectual dimension. The Colleges admit undergraduate students, provide student accommodation and pastoral support and deliver small group teaching for undergraduates.

The University awards degrees and its faculties and departments provide lectures and seminars for students and determine the syllabi for teaching.

Our instinct for seeking out excellence and setting up enduring and mutually beneficial collaborations has led us to establish strategic partnerships across the globe. Whether it is the successful Cambridge-Africa Programme involving universities in Ghana, Uganda and elsewhere on the African continent; or the close association with the government of India to pursue new research in crop science; or the creation, with Germany's Max Planck Institutes, of a Cambridge-based centre for the study of ethics, human economy and social change – international partnerships are now an inextricable part of the University's make-up.

"Through its outstanding education, research and innovation, the University of Cambridge has made – and continues to make – a lasting contribution to human knowledge and is flourishing. By working at the University of Cambridge, you will be joining a vibrant community of students, scholars and professional services staff committed to supporting and enhancing the University's mission to contribute to society."

Professor Deborah Prentice,

Vice Chancellor 2023



Working at the University

Working at Cambridge you will join a diverse, talented and innovative community, with more than 24,000 students and over 13,000 staff from all walks of life and corners of the world.

The University continually explores strategies to attract and retain the best people. It is committed to supporting its staff to achieve their best. We are a fair, diverse and inclusive society and we believe our staff are our greatest asset. There is strong commitment to developing institutional leadership and supporting and encouraging staff development at all levels.

The University offers a variety of roles including academic, research, professional, managerial and support roles. We also offer extensive benefits and excellent learning opportunities within a stimulating working environment.

The University's estate is undergoing the most significant transformation in its history. Cambridge has been able to create a science and technology campus to the west of the city centre, and is expanding further to the north west of Cambridge including investing in affordable homes for University key workers and community facilities. Even with their continued development, the University remains within walking or cycling distance across the campus. The University is a major partner on the Cambridge Biomedical Campus and continues to redevelop its historic city centre sites demonstrating a clear determination to ensure that we can offer the best facilities and opportunities for our staff and students.



Equality, Diversity and Inclusion

The University has built its excellence on the diversity of its staff and student community. We aim to be a leader in fostering equality and inclusion, and in promoting respect and a sense of belonging for all. We encourage applications from all sections of society. All appointments are made on the basis of merit. We have an Equal Opportunities Policy, along with a range of diversity groups, including the Women's Staff Network, Race Equality Network and LGBT+ Staff Network. More details are available here: http://www.equality.admin.cam.ac.uk/

The University has a bronze Race Equality Charter award, with a framework for improving the representation, progression and success of minority ethnic staff and students within higher education. Furthermore, the University's silver Athena swan award recognises and celebrates good practice in recruiting, retaining and promoting gender equality.

Living in Cambridge

Cambridge is rich in cultural diversity. From beautiful University and College buildings, museums and art galleries, quaint gardens and punts on the River Cam, to a vibrant restaurant and café scene, our employees are surrounded by the wonderful features of this unique city.

You can find a wide-range of high street shops and 3 shopping centres, with independent alternatives at the historic market and nestled within the passageways in the city centre. You will find a cinema, bowling alley, a nightclub and various live performances at the Cambridge Leisure Park, with further entertainment options at the Corn Exchange, Arts Theatre and the ADC Theatre. Further information can be found on the Visit Cambridge website.

If you prefer the faster pace of life, London is a 45-minute train journey away. For those travelling from overseas, Stansted Airport is just 45 minutes away and Heathrow Airport under 2 hours away. The University is a short distance from a host of other attractions such as Ely Cathedral, Newmarket Races and various wildlife parks and stately homes. Cambridge is also within easy reach of the beautiful Broads and coastlines of Norfolk and Suffolk.

Relocation Support

The University recognises the importance of helping individuals to move and settle into a new area. We provide support and guidance to those relocating internationally or domestically to take up a post at the University of Cambridge, liaising with other University offices and selected partners to ensure comprehensive relocation support is available. This includes: accommodation, childcare, schools, banking, immigration and transport. If you would like further information, please visit https://www.accommodation.cam.ac.uk/RelocationService/. The Shared Equity Scheme and the Reimbursement of Relocation Expenses Scheme provide financial assistance to qualifying new members of

Accommodation Service

The University Accommodation Service helps staff, students and visiting scholars who are affiliated to the University in their search for suitable accommodation in Cambridge. The dedicated accommodation team can provide access to a wide range of University-owned furnished and unfurnished properties, and has a database of private sector accommodation available for short and long-term lets. For further information and to register with this free service please visit: https://www.accommodation.cam.ac.uk/





What Cambridge can offer

We offer a comprehensive reward package to attract, motivate and retain high performing staff at all levels and in all areas of work.

The University offers a wide range of competitive benefits, from family leave entitlement, to shopping and travel discount schemes. Our generous annual leave package contributes to the positive wellbeing of our University employees. Sabbatical leave enables academics to focus on research and scholarship, whilst still maintaining their full salary. The University also has a career break scheme for academic and academic-related staff, with additional flexible working policies for all other staff.



Pay and benefits

The University salary structure includes automatic service-related pay progression in many of its grades and an annual cost of living increase. In addition to this, employees are rewarded for outstanding contribution through a number of regular pay progression schemes. The University offers attractive pensions schemes for employees, with an additional benefit of a salary exchange arrangement providing tax and national insurance savings.



CAMbens employee benefits

The University offers employees a wide range of competitive benefits, known as CAMbens. CAMbens offers something for everyone across a range of categories, including:

- Financial Benefits, including shopping discounts (both local and national) and a Payroll Giving scheme;
- Relocation and Accommodation Benefits, including relocation assistance and interest-free Rental Deposit Loans;
- Travel Benefits, including Cycle to Work, discounts on train season tickets and interest-free Travel to Work loans;
- Family Friendly and Lifestyle Benefits, including support with childcare and family friendly policies;
- Health and Wellbeing Benefits, including a University Staff Counselling Service, discounts at the University Sports Centre, and other local gyms, and healthcare schemes.

What Cambridge can offer

Family-friendly policies

The University recognises the importance of supporting its staff. We have a range of family-friendly policies to aid employees' work-life balance including a generous maternity, adoption and shared parental leave entitlement of 26 weeks' full pay, and paid emergency leave for parents and carers.

Other family-friendly support includes:

Our highly regarded workplace nurseries, a childcare salary exchange scheme and a high-quality holiday Playscheme are available to help support University employees with caring responsibilities (subject to demand and qualifying criteria). Further childcare information can be found here: https://www.childcare.admin.cam.ac.uk/

The Newcomers and Visiting Scholars Group (https://www.nvs.admin.cam.ac.uk/) is an organisation within the University that welcomes the partners and families of visiting scholars and new members of the University. Run by volunteers, the group offers opportunities to visit interesting Cambridge venues, learn about the community, take part in social events and gain local knowledge while developing a strong support network of both residents and other newcomers.



Your wellbeing

The University's Sport Centre, Counselling Services and Occupational Health are just some of the support services available to University employees to promote their physical and mental wellbeing. The University delivers The Festival of Wellbeing annually, which is a programme of stimulating talks and activities, which aim to promote wellbeing and good mental and physical health. The University also hosts the Cambridge Festival, which is a great opportunity to get your first taste of public engagement, through volunteering, supporting hands-on activities or proposing a talk.

Development opportunities

We support new employees to settle in through various activities as well as supporting their professional and career development on an ongoing basis. Our Personal and Professional Development (PPD) team provide development opportunities for all University employees, including face-to-face sessions, online learning modules and webinars. All employees also have unlimited access to LinkedIn Learning to support their development. Both new and existing employees can undertake funded Apprenticeships, which lead to a range of vocational and professional qualifications. We offer reduced staff fees for University of Cambridge graduate courses and the opportunity to attend lectures and seminars held by University departments and institutions. A range of University training providers also offer specialist learning and development in their own areas e.g. teaching and learning, digital literacy, finance, health and wellbeing, safety.

How to apply

Applications should be submitted online via the University of Cambridge jobs page www.jobs.cam.ac.uk by clicking “Apply online” in the job advert. You will need an email address to register for our online system.

Conversations about flexible working are encouraged at the University of Cambridge. Please feel free to discuss flexibility prior to applying (using the contact information below) or at interview if your application is successful.

Informal enquiries are welcomed and if you have any queries regarding either the vacancy or the application process, please contact the HR Office in the first instance on hr-office@eng.cam.ac.uk or 01223 332615

The closing date for applications is 22 November 2026.

