# CANDIDATE PACK

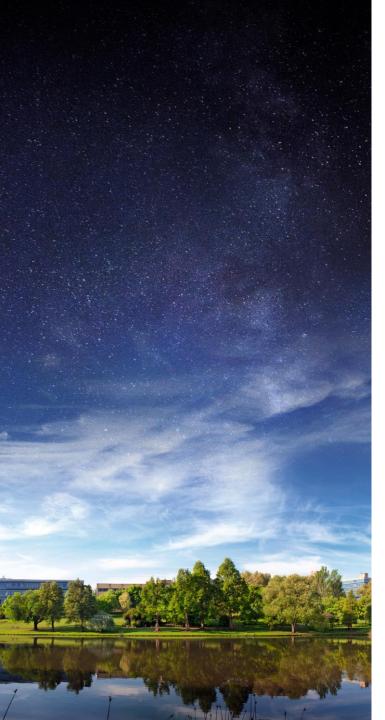
HEAD OF SCHOOL OF ENGINEERING FACULTY OF ENGINEERING AND PHYSICAL SCIENCES (FEPS)

CLOSING DATE FOR APPLICATIONS 23:59 MONDAY 28<sup>TH</sup> OCTOBER 2024

INTERVIEW DATE- 1<sup>ST</sup> NOVEMBER 2024







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Welcome Message President and Vice

<u>Chancellor</u>

Our Ambition

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# WELCOME MESSAGE FROM THE PRESIDENT AND VICE CHANCELLOR

Thank you for your interest in this important senior faculty role. The University of Surrey is a global community of talented students and staff; we work with our stakeholders and partners to produce graduates of outstanding quality and impactful research.

Since the University's founding in 1966, and before that at Battersea College, our community has thrived on a strong ethos of practical learning and connections with the real world. This spirit of collaboration is evident across the University today at every level. It informs our teaching, adds value to our research and increases our impact.

We embrace the transformative power of technologies such as AI and seek to improve everything we do to give our students the head-start for their personal and professional success. We prepare them to be the leaders of the future and change-makers that will help shape the world for the better. We have over 148,000 alumni around the world, and we work with hundreds of institutions for students' exchange, mobility and research collaboration.

In 2024, Surrey was ranked 86<sup>th</sup> in the world for contributions to the UN Sustainable Development Goals in the Times Higher Education Impact Ranking, and we have nine subjects ranked in the world top 100 in the global Shanghai Subjects Ranking. We have a proud record in high quality education and student experience, and in the 2024 NSS, the University of Surrey was placed 11th position overall in the UK. In the last three years, the University of Surrey has invested significantly in new study spaces and teaching facilities as well as a new data analytics system for enhancing education and campus life for our students.

The whole University is united around our vision of making more contributions to society through education and research, and is proud of our excellence-driven, supportive and inclusive culture, building on strong values of Inclusion, Inspiration, Innovation and Integrity. If your ethos and ambition match the University's, I wish you the very best with your application.

See our <u>Key Facts and Figures</u> Find out more here about <u>Sustainability at Surrey</u>

**Professor G Q Max Lu AO DL FREng FAA FTSE** President and Vice-Chancellor University of Surrey

### OUR AMBITION



"To be a leading global university renowned for the outstanding quality and impact of its graduates, research, and innovation, together making great contributions to society."

#### OUR GOALS

We will have achieved our ambitions when we have become:

- A global leader in higher education, a destination of choice for higher learning in the UK and internationally, with outstanding employment outcomes.
- A leading research and innovation institution with talented staff, students and postgraduate researchers committed to research excellence and to benefitting the economy, society, and the environment.
- An engaged and connected university which is the intellectual home for staff, students, alumni, supporters and the local community, and aware of its impact.
- A preferred partner for government, business, industry, and other universities in creating technological solutions, digital transformation and policy innovation.
- A financially astute and sustainable institution with diverse funding support, including philanthropy.

### Our Strategy 2041

The current strategy extension Forward thinking. And doing (2021-2024) was developed to see the University through the uncertain period post pandemic. This strategy identified three high-level priorities to consolidate the University's position and prepare it to exploit the opportunities that would inevitably arise post-2024 from demographic expansion, and government policies to drive economic growth. There has been a period of significant investment.

The University is now embarking on a strategy development process that aims to set a vision for 2041 – the University's 150th anniversary and marking 75 years on Stag Hill Campus in Guildford – and a three-phase strategic plan to realise its ambition. This process has started with the University community engaging in a "big conversation" about how the megatrends in the world today – AI/Tech, sustainability, global population growth, urbanisation, and wellbeing pressures – might create both risk and opportunity for the University. Later this year, these ideas from the ground up will be consolidated with the views of the Executive and the Governing body to create a purposeful and ambitious strategy that articulates clear choices about the future direction of the University.

Strategy 2021-2024 Forward thinking. And doing

# OUR SUCCESS

## WE HAVE ALREADY MADE SIGNIFICANT PROGRESS TOWARDS THIS GOAL, AS DEMONSTRATED BY OUR METRICS

Complete University Guide has ranked us 12th in the 2025 League Tables for UK Universities. We are in the top 250 globally ranked universities, placed at 233<sup>rd</sup>, by the Times Higher Education World University Rankings 2024.

Manufacturing and production engineering at Surrey was ranked 9th in the UK within the Complete University Guide 2025 while aeronautical and manufacturing engineering was ranked 12th in the UK in The Times and Sunday Time Good University Guide 2025. In Computer Science Surrey ranked 5th in the Daily Mail University Guide 2025, 7th in the UK and in the top 100 for computer science and engineering in the Shanghai Global Ranking of Academic subjects 2023.

The REF 2021 ranked the University of Surrey 33rd for overall research quality, 7th for our research outputs in computer science and 15th for research power within engineering.

University of Surrey celebrates strong performance on student satisfaction in National Student Survey 2024 we were ranked 11th – with an overall positivity score of 84.7 per cent. This result represents a trend of sustained year-on-year successes in official measures of student satisfaction over the last four years. Building on insights gained from last year's survey, the University has continued to improve facilities and enhance services for students.



# OUR PRIORITIES



Students are at the heart of our University, and we will deliver an excellent student experience for all students regardless of background. Surrey is renowned for enabling our students to realise their potential. We will continue to push the boundaries of pedagogy, ensuring our students experience a research-led education delivered by engaged academic staff using technology for greater flexibility to facilitate learning. We will be relentless in our pursuit of improvements to the overall student journey.

Our aim is to empower our students to be responsible for their Surrey journey. We will support our students to achieve their potential and prepare them to thrive throughout and beyond university. We will do this by working in partnership with students to build a strong Surrey community, fostering pride and belonging and championing diversity, inclusivity, and togetherness.

We will listen to, work with and support our students to help them succeed, identifying and improving support services and the necessary infrastructure for a truly joined up experience.



We will focus our resources and support around our existing and emerging critical masses of excellence. We will enhance excellence and build scale, bringing together disciplinary strengths from across the University to share ideas and address the challenges of our time. New pan-University institutes will serve as flagships of cross-disciplinary research concentration from which to elevate our global impact and visibility.

We will start upscaling and broadening our excellent innovation ecosystem to grow our innovation activity within our academic community, through educating, stimulating, and facilitating. We will continue to bring the research and education missions of the University ever closer together, building on the synergies already achieved by individual teachers and researchers.

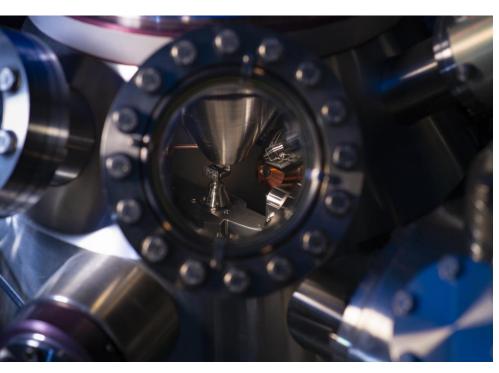
We will align our research and innovation support to be researcher-centric, 'can-do', digital and integrated which will help our researchers improve their effectiveness, and continue to be extraordinary collaborators, with each other and our partners around the world. Create the conditions for success.

We will foster talent and create an environment where all our staff, students and postgraduate researchers are empowered and supported to flourish, valuing each and every contribution. We have redesigned our resource allocation model and our support processes to reward excellence, enable growth, and to create more capacity for the academic mission.

We will use technology to enhance our systems and simplify processes, putting our community at the heart of everything we do, building Surrey as the place to start and grow a career for all our staff – support and academic alike.

The success of our strategy will be underpinned by the quality, energy and commitment of our staff, supported by a strong and inclusive culture in an environment where all members of our community can bring their whole selves, flourish and fulfil their full potential.

# RESEARCH AND INNOVATION



### THE UNIVERSITY OF SURREY HISTORY OF COLLABORATION. THE CONNECTIONS WE MAKE HAS A PROUD HISTORY ACROSS DISCIPLINES AND DEPARTMENTS, AND WITH OTHER INSTITUTIONS AND INDUSTRY, ENABLE US TO ACHIEVE RESEARCH BREAKTHROUGHS THAT MAKE A DIFFERENCE TO SOCIETY

There are many examples of this across the University. We host the UK's largest research centre in 5G and 6G – which is developing the communications infrastructure that will underpin the way we communicate, work and live in the future – and are also home to the GCHQ-accredited Surrey Centre for Cyber Security. In the last two years, we have launched two pan-University Institutes – in Artificial Intelligence and Sustainability – which have given greater prominence to areas of world-leading research strength at Surrey. The Institutes are at the forefront of innovative new taught postgraduate offerings.

This research excellence is also at the heart of what we offer at Surrey in terms of teaching, adding realworld relevance and unique content to our undergraduate and masters courses, and enabling our PhD students to benefit from a world-class research environment.

We are proud to welcome high calibre young researchers to our community as they begin their academic careers, and even prouder to see them moving.

Read more here <u>Research and Innovation Strategy</u>

# OUR FACULTIES

WE ARE PROUD OF THE OUTSTANDING TEACHING OUR THREE FACULTIES DELIVER TO OVER 17,000 STUDENTS FROM ALL OVER THE WORLD.



### FACULTY OF ENGINEERING AND PHYSICAL SCIENCES (FEPS)

The Faculty of Engineering and Physical Sciences covers the core engineering disciplines of aeronautical, civil, chemical, electronic and mechanical engineering, alongside the specific disciplines of chemistry, computing, space, mathematics and physics. FEPS research ranges in scale from nuclear physics to interplanetary space exploration, and we have an enviable reputation for the contributions we have made towards a variety of challenges faced by out society. These challenges include improving our environment, health, communications, transport, energy and water.

### FACULTY OF HEALTH AND MEDICAL SCIENCES (FHMS)

The Faculty of Health and Medical Sciences is comprised of five schools, all working together under a 'One Health, One Medicine' vision, to provide interdisciplinary research and teaching in human and animal health.

### FACULTY OF ARTS, BUSINESS AND SOCIAL SCIENCES (FABSS)

The Faculty of Arts, Business and Social Sciences transforms lives through combining research intensity with practice-led education, bridging disciplines and embracing disruptive landscapes to address today's most challenging issues.

# EQUALITY, DIVERSITY AND INCLUSION

AT SURREY, WE ARE VERY PROUD OF THE DIVERSITY WITHIN OUR COMMUNITY AND ARE COMMITTED TO PROVIDING AN INCLUSIVE ENVIRONMENT THAT OFFERS EQUITABLE OPPORTUNITIES FOR ALL

We strive for Surrey to be a place where everyone feels welcomed, valued and safe and we seek to embed our values in everything we do:

- Inclusion: to value everyone in our community
- Inspiration: to find it in ourselves and each other
- Innovation: to work together to make tomorrow better than yesterday
- Integrity: to do the right thing, individually and collectively

Our vision to be a leading global university relies on our proven ability to attract the best people from the UK and internationally to work and study here; this can only be achieved when we work together to create a truly inclusive culture. Our Equality, Diversity and Inclusion (EDI) Plan 2020–2025 lays out our aims to develop our inclusive and supportive culture, eliminate discrimination, harassment and victimisation, and advance equality of opportunities.

Across the University of Surrey, we are working actively towards fulfilling our EDI Plan targets and encourage everyone to engage with and participate in its progress. To achieve culture change, we are working to embed EDI in all teaching and learning, research and partnerships, as well as supporting our professional services colleagues. This will enable a self-sustaining process that will support EDI in becoming 'second nature' for our community.

See the plan here Equality, Diversity and Inclusion Plan 2020 - 2025

Inclusion | Inspiration | Innovation | Integrity

We are proud members of the Race Equality Charter and the Athena SWAN Charter for gender equality (holding University and departmental awards). We are also a Stonewall Diversity Champion and a committed Disability Confident employer Our AccessAble app provides accessibility support to people who need it around our campus and we have thriving staff networks and equality groups that support our work in all our areas of equality (gender, race/ethnicity, LGBTQI+, disability and faith).



# WELCOME MESSAGE FROM THE PVC EXECUTIVE DEAN OF FACULTY

The Faculty of Engineering and Physical Science (FEPS) is one of three Faculties at Surrey, and covers the core engineering disciplines of aeronautical engineering, civil engineering, chemical engineering, electrical and electronic engineering and mechanical engineering, alongside the sciences of mathematics, physics, chemistry and computer science.

I am proud that the league table positions reflect our excellence in teaching and education. For example, Civil Engineering sits in the top 150 within the Shanghai Global Rankings 2024, while Mechanical Engineering is ranked in the top 10 in NSS 2024. At subject level, the Complete University Guide 2025 has ranked Surrey 9th for manufacturing and production and 12th for aeronautical and manufacturing engineering in the Times Good University Guide 2025.

I am now in my third year as Executive Dean of FEPS. During this time, we have worked hard on implementing our new strategy entitled "Towards an Optimised and Connected Future" which focuses on improving the ways we work. During my tenure, we have moved towards larger schools within the faculty to provide greater opportunity for interdisciplinary teaching and research, while optimizing our leadership teams and creating resilience in our operations. I am also proud of the improvements we have made to our curriculum and physical infrastructure within the faculty, as we work together to promote a 'can do' attitude where we seek continual improvements in everything we do. The new School of Engineering is the next step in that 'connected and optimised' future. It brings together similar disciplines (Civil, Environmental and Mechanical Engineering) to create the second biggest school in the Faculty. The school will have over 130 staff teaching nearly a thousand students (undergraduate and postgraduate). It also builds capacity and capability across our key research areas and promotes further inter-disciplinary opportunities for a wide range of engineering disciplines. This is an exciting opportunity for the Head to shape the future of such an important new school in FEPS and the University.

The Head will also join the senior leadership teams of both the faculty and university. As Surrey moves towards larger schools (only 13 across the University now), the opportunity to shape the future beyond the School of Engineering is possible especially as we embark as a university on our new "Shaping Surrey 2041". That strategy looks towards making Surrey one of the leading technology universities in the world with a strong emphasis on innovation and industrial partnerships.

Thank you for your time and look forward to your application

#### **Professor Bob Nichol**

Executive Dean, PVC and Executive Dean of the Faculty of Engineering and Physical Science (FEPS) University of Surrey

### Find out more about our research here

Professor Bob Nichol has been ranked 16th in the world and 3rd in the UK in a rating of the world's top 1,000 physics scientists. Aug 2022.



## ABOUT THE SCHOOL

Welcome to our new School of Engineering within the Faculty of Engineering & Physics Sciences, where our Civil Engineering and Mechanical Engineering disciplines have been brought together to create an innovative school that is excellently positioned to deliver globally impactful Research and Education. Our School is home to a diverse student population of c1205, including c157 PGR students. It is home to c60 FTE academic staff.

Our mission is to unite research and industry expertise, tackling real-world challenges to the betterment of society.

The School of Engineering has been formed from two pre-existing schools, the School of Sustainability, Civil and Environmental Engineering and the School of Mechanical Engineering Sciences. The creation of the new school has been designed to harness the current strengths of the two key sets of disciplines and to enhance the natural synergies between these disciplines to further propel research and educational activity.

Our Civil Engineering discipline sits in the top 150 within the Shanghai Global Rankings 2024. The overarching area of Mechanical Engineering is ranked within the top 10 in NSS 2024. At subject level, the Complete University Guide 2025 has ranked Surrey 9th for manufacturing and production, 13th for Civil Engineering and 12th for aeronautical and manufacturing engineering in the Times Good University Guide 2025.

The recent Research Excellence Framework 2021 results further highlight our academic prowess, positioning the Engineering discipline 23rd overall in the UK.

In Civil Engineering educational activity is focused through a range of programmes offering a breadth of opportunities for students to enhance specialist skills in a range of areas from water to geotechnics to structures and infrastructure. Programmes utilise dedicated specilaised lab spaces to deliver innovative hands-on learning that translate into tangible skills that increase employability post study. Research activity covers environmental health and Engineering, the Global Centre for Clean Air Research, infrastructure systems engineering and geomechanics.

Educational activity under the Mechanical Engineering Sciences disciplines engage a number of topics across mechanical, automotive, aerospace, biomedical and material engineering with a focus on helping to ensure a resilient, green and healthy future. Teaching utilises practical learning through our state-of-the-art facilities. One such area is our Design Centre, which acts as a collaborative workspace for students to plan and build projects while understanding the underpinnings of engineering design, whether that be through the creation of UAVs, prosthetics or robotic rovers. Research activity includes aerodynamics and environmental flow, automotive engineering, biomedical engineering, energy and engineering materials.

The new school will utilise the synergies of these disciplines to grow research and innovation through increased collaborative grants and cross school research groups.

### OVERVIEW OF THE ROLE

We are looking to appoint a Head of School with a breadth of knowledge and experience who will support the Pro-Vice-Chancellor and Executive Dean and the Faculty Leadership Team in delivering our vision and aspirations.

This unique position offers an exciting opportunity to harness the advantages of interdisciplinarity, fostering connections that empower both students and cutting-edge research, transcending traditional boundaries. Building on our strong performance across our areas of activity, as evidenced by our league table position, we are looking to further develop and deliver ever more innovative, high-quality education, alongside our internationally excellent research that has demonstrable global impact.

We are seeking to appoint an outstanding strategic leader who will bring an inspirational and innovative approach to delivering the University and Faculty priorities. The Head of School will play a pivotal role in developing areas for delivery across the School, further enhancing reputational and academic performance and ensuring the financial sustainability of the School.

The role holder will also contribute to pan-university activities defined by the broader strategic priorities set by the Executive Board. Reporting to the PVC Executive Dean, the postholder will take strategic leadership of the School, bringing the different disciplinary cultures and identities of its component parts together in a multi-disciplinary unit.

Whilst the successful candidate will be appointed to a permanent senior academic post, the Head of School role is for a fixed 5-year tenure, with the potential to extend, subject to internal processes.

### Aims of the Role

The formation of the School of Engineering has been undertaken to best harness the natural synergies of the disciplines and enhance the operational benefits that come from a large multi disciplined school.

This is an exciting time to join and lead the evolution of the new School.

#### **Key Responsibilities**

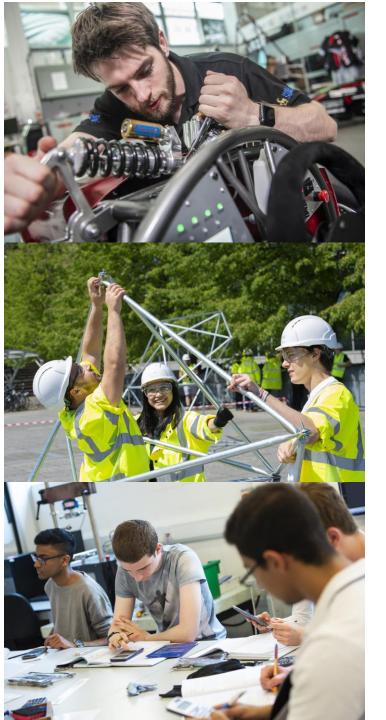
- To lead the School through the critical launch period, unifying its constituent parts into a resilient, multi-disciplinary unit.
- To devise and lead on a short- and long-term strategy for the new School that leverages the opportunities afforded by the bringing together of cognate subjects, building and further developing each discipline's strong performance across education and research metrics.
- To develop frameworks that enable growth across education and research.



### The successful candidate will demonstrate;

- A higher degree or PhD in a relevant subject.
- Excellent leadership and management skills with substantial experience and proven ability to operate effectively as a credible academic leader.
- A track record of developing strategic vision and implementation through innovative, inclusive and entrepreneurial approaches.
- Demonstrable research activity evidenced by high quality outputs and grant income as appropriate to the discipline.
- Experience of delivering a high-quality student experience and innovative teaching practice.
- Proven experience of building strong relationships with a diverse range of external stakeholders, with the interpersonal and diplomatic skills required to be an exceptional ambassador for the School and the Institution.

- Ability to deliver high quality outcomes under pressure and in a collegiate and inclusive manner.
- Ability to think innovatively to grow student numbers, develop contemporary programmes and drive forward research activity and impact.
- Proven experience of inspiring, motivating and developing teams, engendering trust and respect.
- An excellent understanding of the sector including accrediting body regulatory requirements relevant to the disciplines within the School.
- Experience of developing a highly successful team and setting the standards required for such achievement. This can be evidenced through NSS results, increased student numbers, innovation in teaching, REF outcomes, UKRI / EU grant income and/or leadership in world-class collaborations.



### HOW TO APPLY

To make a formal application, please do so via our website.

In your application\*, please include;

• A full academic CV

• A cover letter outlining your suitability for the role and motivation in applying for the role

The closing date for applications is 23:59 on 28th October 2024

Shortlisted candidates will be invited to campus-based interviews being held on 1<sup>st</sup> November 2024.

\* Should you require any reasonable adjustments to support your application or interview please contact <a href="mailto:resourcingteam@surrey.ac.uk">resourcingteam@surrey.ac.uk</a> who will ensure that you have the support you need to maximise your application. The University of Surrey is committed to providing an inclusive environment that offers equal opportunities for all, placing great value on diversity and seeking to increase diversity in its community. Therefore, we particularly encourage applications from under-represented groups such as people from Black, Asian and minority ethnic backgrounds, women and people with disabilities.







# TERMS AND CONDITIONS





### PAY SCALE AND MODEL:

### PAY SCALE/PAY MODEL

OUR BENEFITS:

Link to our Benefits

Link to USS Pension Scheme

Relocation Policy

You and Your Family



For more information contact a.g.foster@surrey.ac.uk

