

# APPLY TODAY WORK ON TOMORROW



## CANDIDATE PACK

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**Professor/s in Machine Learning (ML) and  
Artificial Intelligence (AI)**

**Surrey Institute for People-Centered AI**  
School of Computer Sciences and Electronic Engineering

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### **Closing Date for Applications**

23:59 Sunday 11<sup>th</sup> June 2023

Interviews planned for Friday 30<sup>th</sup> June 2023



**People-Centred AI**  
UNIVERSITY OF SURREY

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# WELCOME MESSAGE FROM THE VICE CHANCELLOR

## FORWARD THINKING AND DOING

Surrey is made up of many talented individuals who make us a great institution. And working together, and connecting with external institutions, businesses and government make us even stronger.

Since the University's founding in the 1960s, and before that at Battersea College, our community has thrived on strong connections with the world outside our campus. 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 – connecting people with ideas, students with opportunities and businesses with technology.

Collaboration begins with the connections we make in our community, supporting projects that make a difference locally, and extends to our global partnerships that are enabling transformative research in areas such as 5G and 6G, AI, cancer treatment and sustainable tourism.

Around the globe and beyond, Surrey plays a significant role. We were one of only a few UK universities invited to take part in the GREAT Festival of Innovation in Hong Kong, a wonderful forum for collaboration and interdisciplinary discussion on technologies that will drive the UK's future economic growth. We also saw the first successful deployment of the RemoveDEBRIS satellite, a project we are leading with a consortium of space sector organisations.

There's real energy, momentum and ambition to Surrey. It has always been part of us, and I'm excited to be able to share with you how we're taking that energy forwards into the future using our values of;

- **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

These collaborations, and many others, are bringing improvements across a diverse range of fields, and new connections are propelling us in surprising directions. At Surrey, we are continuously redefining and joining together the many spheres that surround us – from real worlds to virtual ones, and from the worlds inside ourselves to those at the farthest reaches of our imagination.

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



See our [Key Facts and Figures](#) here.  
Find out more here about [Sustainability at 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.”***

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.

Read the latest [Social Impact Report here](#).

## FORWARD THINKING AND DOING

As society emerges from the global pandemic, we are continuing our focus on building the foundations for a better future. We are creating an environment where our community comes together as one to educate and develop the future leaders and citizens that will make the world a better place. At the same we are creating new knowledge, sharing our ideas and innovating to contribute to society in collaboration with our stakeholders and partners around the world.

We need academics who can conduct research at the cutting edge, who are forward-thinking, who provide an exceptional experience for our research students and partners, and who value and generate innovation outcomes. They are the agents for the ‘Surrey Advantage’, culminating in the premium that each and every student or partner gains by choosing us as the place to complete postgraduate research or to collaborate.

This strategy refresh extends our existing [Forward Thinking. And Doing Corporate Strategy](#) to 2024 to bridge the University’s ambitions from where we were pre-pandemic, through the national and international recovery period, to build a strong platform from which we can aspire to even greater achievements in the future. We are in the process of formulating the strategy beyond 2024 which makes it an exciting time to be joining us to have your say.

# JOIN OUR SUCCESS STORY

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

As a Top 20 university nationally and Top 200 globally, we generate nearly £50m of research income annually and were amongst the Top 30 in the last Research Excellence Framework (REF). We are 9<sup>th</sup> nationally for overall student satisfaction and are financially sustainable, with a healthy 3.5% underlying surplus.

University of Surrey celebrates strong performance on student satisfaction in National Student Survey 2022. Improvements in teaching quality, assessments and feedback, support and services for students have helped lift the University of Surrey into the top 10 for this year's National Student Survey – with an overall satisfaction score of 84 per cent.

This strong performance builds on the excellent graduate employment outcomes released last month, with Surrey ranked in the top 10 in the UK for graduate employability in the HESA Graduate Outcomes Survey 2022.

The University now ranks as the 9<sup>th</sup> placed university in the UK (excluding specialist providers) for student satisfaction in the Office for Students' benchmark survey – up from 25<sup>th</sup> in 2021 and 111<sup>th</sup> in 2020.

In 2021, Surrey was one of only six institutions to improve on student satisfaction. The continued significant improvement in 2022 reflects a University-wide strategic focus on delivering an excellent student experience.

[Student Satisfaction Report 2022](#)



# OUR PRIORITIES

Our priorities for the next three years address the core of what we do:

## Drive student experience.

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.

## Focus research intensity.

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 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 2017, three decades of ground-breaking research on the relationship between nutrition and health won us a coveted Queen's Anniversary Prize, while our newest School of Veterinary Science is already advancing research for the improvement of animal welfare, consistent with a broader 'one-health' agenda.

This research excellence is also at the heart of what we offer at Surrey in terms of teaching, adding real-world 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 [Research and Innovation Strategy](#)



# 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. 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 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](#)

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).

[Watch our Inclusion Video](#)



# WELCOME MESSAGE FROM THE HEAD OF SCHOOL OF COMPUTER SCIENCE AND ELECTRONIC ENGINEERING

I became Head of the School of Computer Science and Electronic Engineering (CSEE) in April 2022. I am proud to be leading a School which delivers world-class research in Computer Science and Electronic Engineering, areas which are making a difference in our rapidly changing world.

We sit in the Faculty of Engineering and Physical Sciences (FEPS), 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 specific disciplines of mathematics, physics, chemistry and computer science.

The School is dedicated to both research and teaching excellence. We are ensuring that we focus on driving the student experience so that we provide a nurturing environment for our future graduates to enable them to thrive and succeed. We will respond to the changing demands of the discipline by delivering a clear set of programmes that focus on the foundations, reflecting our collaborative and research-led approach to teaching and our passion for inspiring students through innovation in collaborative projects.

The University has led fundamental advances in AI and machine perception for over three decades through its Centre for Vision, Speech and Signal Processing (CVSSP) established in 1987 and, over the past decade, the Nature Inspired Computing and Engineering Group (NICE).

- CVSSP is an internationally recognised leader in AI and audio-visual machine perception research, and has pioneered technology and award-winning spin-out companies in the biometric, communication, medical and creative industries.

- The NICE group focuses on the development of computational models and algorithms inspired from systems found in the natural world to solve practical problems in sectors such as health, security, energy and the environment.

Globally, Surrey is taking a leading role in developing the fundamental principles which will underpin effective ways to characterise 'information semantics' for machine perception. It has joined a group of universities across the UK and US for the Multidisciplinary University Research Initiative (MURI) which aims to enable future machine perception systems to extract meaningful and actionable information from sensors mounted on autonomous vehicles, installed in smart cities, or supporting assisted living.

Staff within the Faculty are well respected throughout academia and industry, where links are strong, and drive the belief that a university should contribute to the mainstay sciences while enhancing the technology to improve overall quality of life.

We welcome your application.

**Professor Helen Treharne**  
Head of School of Computer Science  
and Electronic Engineering



# OVERVIEW OF SURREY INSTITUTE FOR PEOPLE-CENTERED AI

THE PAN-UNIVERSITY AI INSTITUTE AT THE UNIVERSITY OF SURREY OFFERS A UNIQUE ENVIRONMENT WHERE VISIONARY ACADEMICS WILL HELP SHAPE THE FUTURE OF AI AS PART OF A COLLABORATIVE COMMUNITY OF CO-CREATORS. Watch more here [here](#)

Taking a different approach to much AI activity in the UK, the Institute puts the needs of individuals and society at the very heart of everything it does, driving research and enabling the design of AI technologies and systems which are ethical, responsible and inclusive.

The Surrey Institute for People-Centred AI brings together Surrey's core AI-related expertise in vision, speech and signal processing, computer science, and mathematics, with its domain expertise across engineering and the physical sciences, human and animal health, law and regulation, business, finance and the social sciences.

The Pan-University Institute will be spearheaded by a group of academics with a passion for collaboration and co-creation, and a strong vision for people-centred AI. With this distinctive approach, the academic team will build on Surrey's excellent track record of collaboration with industry, the public sector, government and other relevant institutions to develop innovative ideas and foster new research directions.

The Institute/s research agenda will centre on five cross-cutting "Grand Challenges" focused on people and society. These Grand Challenges link closely with the agendas of UKRI, The AI Council, Society 5.0 and the United Nations Sustainable Development Goals and reflect the University of Surrey's excellence in AI and domain expertise.



## TRUSTWORTHY AND RESPONSIBLE AI

How can we ensure AI is embedded throughout research, design, development and deployment of AI technologies responsibly?



## AI FOR EDUCATION, INFORMATION AND ENTERTAINMENT

How can AI improve the way we learn, communicate and access trusted information?



## AI FOR HEALTH AND WELLBEING

How can AI realise its potential to transform every aspect of health and welfare of individuals within their communities and at home?



## HUMAN-AI INTERACTION

How can AI systems understand, interact and communicate naturally with people?



## AI FOR SOCIETY

How can AI transform business and the workplace for the benefit of society to enrich how individuals live, work, play and create?



## SUSTAINABLE AI

How can we shape future systems to ensure that AI training, implementation and governance achieve social justice and environmental integrity?

# OPPORTUNITIES WITHIN SURREY INSTITUTE FOR PEOPLE-CENTERED AI



## Centre for Vision, Speech and Signal Processing (CVSSP)

The Centre for Vision, Speech and Signal Processing's vision is to create machines that can see and hear to understand the world around them, enabling AI applications for the benefit of society. Research in the Centre has led to pioneering technology and award-winning spin-out companies in the biometric, communication, medical and creative industries.

To find out more click [here](#)

In CVSSP we are particularly interested in experience in foundation AI models including their design and understanding through to real-world application to multimodal data, computer vision, audio and language, healthcare, machine perception, robotics, the metaverse and blockchain technology for media provenance. Research should complement and add to existing areas of CVSSP research strength.



## Nature Inspired Computing and Engineering Research Group (NICE)

NICE, a research group within Surrey's Department of Computer Science, develops computational models and algorithms inspired from natural intelligence found in physical, chemical, social and biological systems to solve practical problems across many sectors.

To find out more click [here](#)

In NICE we are particularly interested in experience in Computational Intelligence (Optimisation Algorithms and Computational Modelling), Natural Language Processing and Data Science. Although we welcome applications from other related fields.

# PROFESSOR ROLE AND RESPONSIBILITIES

## Aims of the Role

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The purpose of the role is to develop and lead a significant programme of research in line with the faculty's research strategy, attracting and securing significant research funds.

To provide academic leadership in undergraduate and postgraduate courses within area of expertise.

## Salary Range

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Grade 7 - Competitive Salary based on experience and academic track record

## Location

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Based from Guildford.

## Flexible working

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We offer the ability to work flexibly with a proportion of time from home depending on the role requirement. Please make your requirements known as early in the process as possible.

## To develop the research activities of the School and the University by:

- Sustaining an extensive track record of published research findings in appropriate, peer reviewed research journals and/or monographs to maintain and enhance expert reputation in own subject area. Developing major funding bids that develop and sustain research support for the specialist area and advance the reputation of the Faculty and the University.
- Planning, co-ordinating and leading a significant programme of research in accordance with a specific project plan through a research team or a group of staff involved in research. Managing the financial and physical resources associated with the research activities. Supervising and guiding the work of staff and research and doctoral students on own specialist area. Monitoring progress on research projects and writing reports to relevant bodies about progress of research.
- Developing innovative research proposals and submitting funding bids, winning support for them and planning the research to be undertaken, as a self-contained item or as part of a broader programme. Developing these bids is likely to involve national and international collaboration with members of other Higher Education Institutions and partners in the public sector, business and policy.
- Taking a central role in teaching at undergraduate and postgraduate level; planning, delivering and critically reviewing a range of teaching and assessment activities including lectures in own area of subject specialism, and providing appropriate feedback to students.
- Engaging in external academic activities in accordance with the faculty's research strategy at a national level and international level.

NB This is not an exhaustive list of role responsibilities. Refer to the job description for more information.

# ESSENTIAL CRITERIA

## Essential Skills Required

- A proven track record in academic leadership.
- A track record in securing external research grant income generation.
- World-class research performance including an exceptional and continuing publication record.
- Evidence of scholarly contributions to conferences and societies at an international level and other external activities.
- Evidence of delivering high-quality, inspirational teaching at undergraduate and continuous improvement of modules/units.
- Supervision of Doctoral level students to completion.
- A higher research degree, normally a doctoral degree or equivalent.

## Further Advice on your Application;

We appreciate that you are busy and it takes time and effort to apply for a role here at the University of Surrey. We appreciate that time.

We ask that you provide us with an up-to-date CV and complete an application form. The application form contains the essential skills and we ask you to provide evidence of your experience against each criteria.

- This is your opportunity to stand out as a candidate and therefore I advise that you tailor your response to the specific requirement noting any relevance to the specific disciplines.
- When we shortlist we look for evidence against the criteria and so if you do not provide any supporting evidence we will assume that you do not have the required experience.
- This may determine whether you are considered for interview, or not.

You can up-load your CV.

A cover letter is optional but I know that our academics enjoy reading about why you are interested in Surrey.



# HOW TO APPLY\*

With your application, please attach a full CV with a ‘supporting statement’ evidencing how you meet the essential criteria (maximum 2 sides of A4). We encourage applications from UK as well as non-UK nationals.

## To Apply for

- Professor in AI and Machine Learning at the CVSSP [Click here](#)
- Professor in Machine Learning and AI at NICE [Click here](#)

For further information, please email;

Prof. Adrian Hilton, Head of CVSSP ([a.hilton@surrey.ac.uk](mailto:a.hilton@surrey.ac.uk))

Prof. Ferrante Neri, Head of the NICE ([f.neri@surrey.ac.uk](mailto:f.neri@surrey.ac.uk)).

**Closing date: 23:59 on Sunday 11<sup>th</sup> June 2023.**

**Interview\* (Guildford) Friday 30<sup>th</sup> June 2023.**

University of Surrey is committed to providing an inclusive environment that offers equal opportunities for all.

We place great value on diversity and are seeking to increase diversity in our 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.

\* Should you require any reasonable adjustments to support your application or interview please contact [resourcingteam@surrey.ac.uk](mailto:resourcingteam@surrey.ac.uk) who will ensure that you have the support you need to maximise your application.



# INDICATIVE TIMETABLE AND INTERVIEW

Depending on the level the Interview Panel will consist of;

- A number of senior academics from our Executive Board.
- Representatives from a relevant Centre, Group and School.
- A Representative at a relevant level from across the University.
- Human Resources Partner.

The Interview Process includes;

- a presentation of no more than 20 minutes +10 minute Q&A to the relevant School or Institute.
- and a panel interview of 45 minutes based on the essential criteria, leadership and management approach.

You will be provided the presentation topic to prepare in advance. Typically we would aim to give you at least two weeks notice of interview and one week advance notification of the presentation topic.

We can offer hybrid interviews for those candidates not currently in the UK where agreed.

We will confirm with you who is on your interview panel in advance when we confirm the interview details.

Activity	Date	Location
Advert closes for applications*	23:59 on Sunday 11 <sup>th</sup> June 2023	Careers Site or <a href="http://www.jobs.ac.uk">www.jobs.ac.uk</a> link
Shortlisting – Notification of Interview	Week Commencing 12 <sup>th</sup> June 2023	
Interview*	Friday 30 <sup>th</sup> June 2023	Guildford
Appointment	Following Interview	

\*Should you require any reasonable adjustments to support your application or interview please contact [resourcingteam@surrey.ac.uk](mailto:resourcingteam@surrey.ac.uk) who will ensure that you have the support you need to maximise your application.

# TERMS AND CONDITIONS



## ► **Pay Scale and Model - follow the links to find out more**

[Pay Scale](#) and [Pay Model](#)

## ► **What are the benefits?**

[Link to our Benefits](#)

## ► **What pension scheme do you offer?**

[Link to USS Pension Scheme](#)

See other schemes available in the link to our Benefits

## ► **What is it like to work in AI@Surrey?**

See what we do in our Surrey Institute for People-Centred AI

<https://youtu.be/dXezzRostUU>

# FREQUENTLY ASKED QUESTIONS



- **Will I be based on site?** Agreements are held locally between the individual and the hiring manager and you will need to explore this at interview. See our approach to flexible working - [Staff Benefits and Flexible Working](#)
- **What if I want/need a certain piece of equipment to fulfill my duties?** This would be assessed on a case by case basis so please raise this if you have specific requirements as early as possible.
- **What if I am not a UK Citizen?** We currently pay the full cost of obtaining a Visa to work in the UK for new staff and renewals for existing members of staff. [Working At Surrey - Overseas Candidates](#)
- **I don't have a Visa to work in the UK?** Read our Eligibility to Work in the UK policy here [Eligibility to work in the UK](#)
- **I am currently sponsored will you sponsor me?** See our document [Eligibility to work in the UK](#)
- **Can I claim Interview Expenses?** You can claim reasonable expenses for interview. You will need to settle your expenses and provide us with your receipts and fill out an Expenses Form which we can provide to you.
- **Where can I find out more about the salary scales?** Follow the links to find out more [Pay Scale](#) and [Pay Model](#)
- **What is it like to live in Guildford?** Find out more here <https://www.surrey.ac.uk/working-at-surrey/guildford-life>
- **What is your relocation allowance?** Up to £8,000 of eligible expenditure within Europe (moving to £15,000) and up to £15,000 of eligible expenditure worldwide.
- **What if I am ill on my interview day?** Due to the complexity of aligning diary dates with panel members, if you are ill on the day please let us know. It would be difficult to reschedule your interview at short notice without causing long delays in the process.
- **How will I be assessed?** You will be assessed across two activities on a single day on Campus in Guildford. This consists of a 30 minute presentation in the morning, chaired by a member of the interview panel, given to you in advance, to an audience relevant to the role; and a 45 minute competency based panel interview in the afternoon. Feedback from the staff presentation will be fed to the interview panel during their deliberations. We provide you with a 'chaperone' to escort you to each activity and offer you a campus tour to familiarise yourself with the site. Your resourcing specialist will be able to confirm the exact process with you.



For more information contact  
[suzi.fox@surrey.ac.uk](mailto:suzi.fox@surrey.ac.uk)