Brief for the position of Executive Dean for the School of Engineering, Physical and Mathematical Sciences

Royal Holloway, University of London



ROYAL HOLLOWAY UNIVERSITY OF LONDON



March 2024

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Welcome message from the Vice-Chancellor & Principal, Professor Julie Sanders



Dear candidate,

Thank you for your interest in the role of Executive Dean for the School of Engineering, Physical and Mathematical Sciences (EPMS) at Royal Holloway. As Vice-Chancellor and Principal of Royal Holloway, I am very proud to be responsible for leading this institution alongside dedicated colleagues, working together across academic and professional services, and an astonishing global community of students, past, present and future.

This is a significant time to join this amazing university. As a community and as a senior leadership team, we are developing our RH2030s strategy, with a clear vision and shared values at its heart. Our aspiration is to shape a future that is as brave and bold as the principles which were at the heart of our two founding colleges, Bedford and Royal Holloway, which opened to enable women's education in 1849 and 1886 respectively. Bedford College marks its 175th anniversary in 2024 and this has provided a wonderful impetus for us to reflect on what we stand for and want to achieve as a university of social purpose. In a dynamic context where Artificial Intelligence and new technologies as well as global challenges are shaping research and educational imperatives at speed, we are excited what this means for EPMS.

Walking around our stunning Egham campus and learning about the exciting educational and research activities going on in our six academic schools, as well as the creative, discovery-led endeavours taking place in our performance spaces, sound studios, research laboratories and volunteering and enterprise hubs is endlessly inspiring. We now have a thriving presence in central London through our expanding portfolio of postgraduate programmes and our partnership work as a member of the globally recognised University of London federation. We have everything a close-knit campus can provide alongside access to all the stimulus and possibility of a great world city.

The strategic ambitions of RH2030s are focussed on: inclusive education and research; skills for choice and opportunity; partnerships and collaboration; and being civic minded and globally engaged. To achieve these ambitions, we recognise the importance of everything we do being underpinned by a commitment to People, Culture and Inclusion; Environmental Sustainability; and to the creation of a future-proofed and fit for purpose digital and physical infrastructure. The role of the Executive Dean for EPMS is a key part of this story and will help enhance areas of strength at Royal Holloway such as AI and new technologies, climate and biodiversity, health and wellbeing, culture and creative and social justice and addressing inequalities. Working closely with our Provost and your fellow Executive Deans, you will play a key role in enabling our academic community in its broadest sense, from students to global partners, in the development and delivery of RH2030s and the institutional values that inform it. We hope, therefore, that you will see in us a values-led and ambitious community of practice that you will be excited to join.

We are looking for someone who is imaginative and internationally focussed in their horizon-scanning capabilities and compelling in their communication of possibilities, not least for Engineering, Physical and Mathematical Sciences as areas of leading-edge research and educational opportunity. We are hugely ambitious for the future of Royal Holloway and we really hope that you will want to join us. We look forward to speaking with you about the opportunity.

Saders

Professor Julie Sanders, Vice-Chancellor & Principal

About Royal Holloway, University of London

Royal Holloway, University of London, is ranked in the top 30 universities in the UK*. Through world-class research that expands minds and changes lives, the dedication of our teachers and the feel of the Royal Holloway experience, ours is a community that inspires individuals to succeed academically, socially and personally.

The university was founded by two social reformers who pioneered the ideal of education and knowledge for all who could benefit. Their vision lives on today. As one of the UK's leading research- intensive universities we are home to some of the world's foremost authorities in the sciences, arts, business, economics and law. We are strengthened by diversity, and welcome students and academics who travel from all over the world to study and work here, ensuring an international and multicultural perspective within a closeknit and historic campus.

*Times and Sunday Times Good University Guide, 2023



Key facts

- Royal Holloway has a turnover of around £216m.
 A link to the Annual Report can be found here: <u>https://www.royalholloway.ac.uk/about-us/more/</u>financial-information/
- Royal Holloway is currently ranked in the top 30 in the UK in the Times and Sunday Times Good University Guide, 2023. We are also ranked in the top 400 in the world and 41st overall in the UK in the Times Higher Education (THE) World University Rankings 2023. In its category 'International Outlook', Royal Holloway is ranked in the UK's top 40 universities.
- Royal Holloway sits within the top 25% of universities in the UK for research rated 'world-leading' or 'internationally excellent' by the Research Excellence Framework (REF) 2021.
- Five submissions were ranked in the top 10 for 4* outputs.
- The National Student Survey (NSS) 2022 revealed that Royal Holloway, with a rating of 79%, remains above the sector average.
- Our world-leading researchers continue to address global challenges, including the development of treatments and therapies for rare diseases and life- limiting conditions, the rapid decline of bees and protecting the UK's national infrastructure from cyber-attack.
- Recognised as world-class experts in the arts, humanities and sciences, many Royal Holloway academics act as advisors to policy-makers and the Government on issues ranging from cybersecurity to climate change.



- Royal Holloway has a total of 11,844 students (FTE, at December 2022). Of these 9,421 are from the UK, 601 are from the EU and 2,002 are from further afield internationally. We currently have 9,943 undergraduates, 1,308 postgraduate taught and 595 postgraduate research students.
- In addition to the main campus in Egham, Surrey we also have a growing campus at Bedford Square in central London where over 300 of our postgraduate students are taught.
- We have 1,671 FTE of staff working at Royal Holloway across academic, professional services and support areas.
- Royal Holloway has an annual income of around £201 million (2021/22). We estimate that in the same year, we contributed c.£657.1m to the UK economy*.
- There are over 95,000 alumni of Royal Holloway and Bedford College worldwide. Notable alumni include novelist George Eliot, suffragette Emily Wilding Davison, the first woman doctor in the west Dr Elizabeth Blackwell, actor Mark Strong, EU Foreign Minister Baroness Cathy Ashton, writer, actor and campaigner Sir Lenny Henry, and Paralympic triple gold medallist Sophie Christiansen.

*Biggar Economics

Our strategic plan 2021-2024

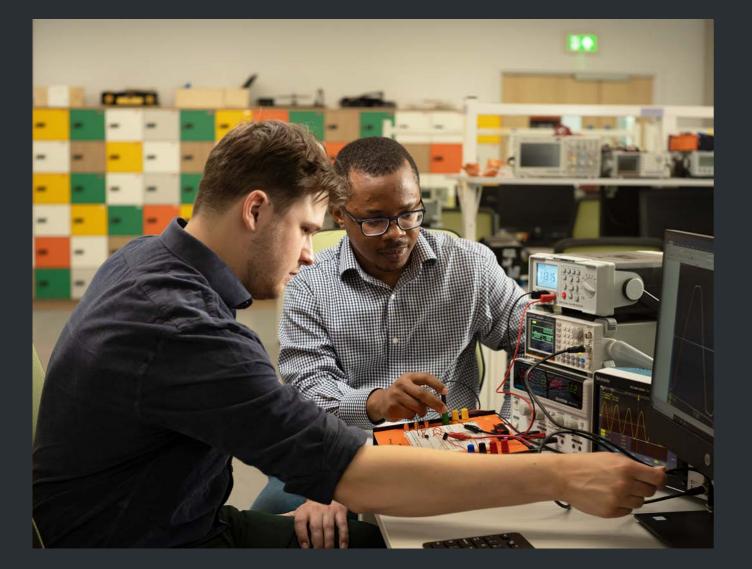
We have a bold vision for Royal Holloway's future and a clear strategy for how to make this happen.

The strategic plan considers how we can meet the needs of our modern times in terms of the provision of higher education and research based innovation. By building on our well regarded academic strengths, and by aligning to needs, for example in graduate employability, programme portfolio, access, civic influence, partnership and knowledge exchange, we can deliver on our purpose as a university.

Our three year strategic plan, covering 2021 to 2024, was inspired by the Deed of Foundation which established Royal Holloway College in 1896. Royal Holloway College merged with Bedford College in 1985, providing the foundations of the university we are today.

Our strategic plan has three strategic priority pillars:

- Respond to the higher education needs and ambitions of an expanding London population.
- Build strong and sustainable international partnerships that expand the horizons of all our students.
- Develop strengths in challenge-led research and contribute to addressing key issues of our modern time.



Vision for the future

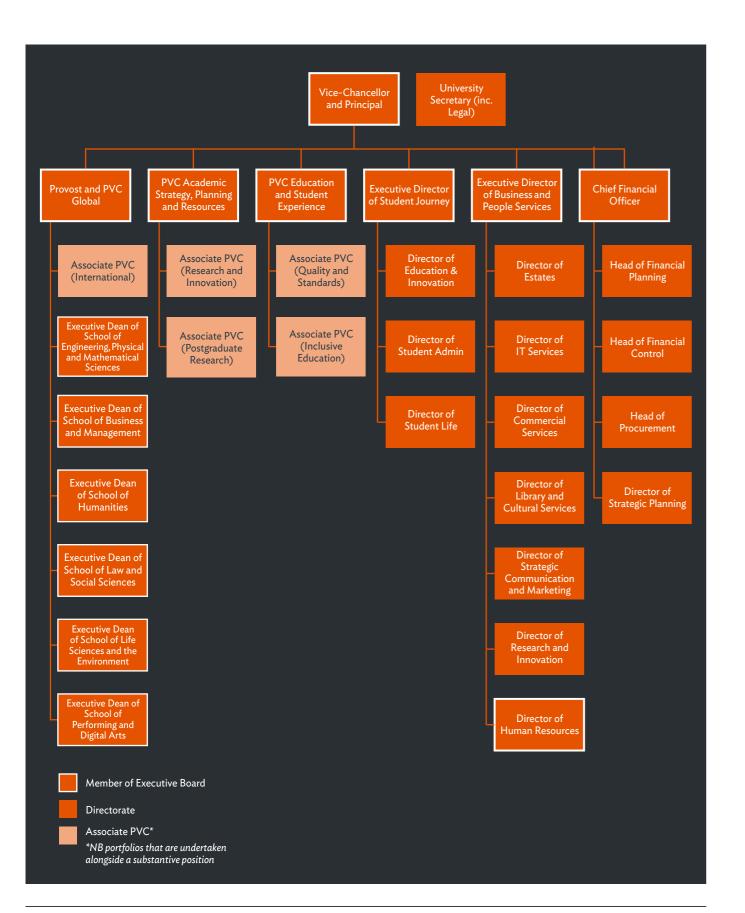
Throughout the plan is a strong focus on managing our resources effectively and efficiently. In doing so we protect the legacy of our founders and enable Royal Holloway to meet the modern needs of future generations.

Straegic plan 2021-2024

Deed of Foundation, 1883	The Founder believes that the education of women should not be exclusively regulated by the tradition and method of former ages; but that it should be founded on those studies and sciences which the experience of modern times has shown to be the most valuable, and the best adapted to meet the intellectual and social requirements of the students.				
Strategic ambition	Aligning to the opportunities and requirements of our modern times to address local and global needs.				
Strategic priority pillars	Respond to the higher education needs and ambitions of an expanding London population.	Build strong and sustainable international partnerships that expand the horizons of all our students.		Develop strengths in challenge-led research and contribute to addressing key issues of our modern time.	
	Manage resources effectively and efficiently to ensure a financially sustainable future, creating value through and for our people.				
	Operational routes to delivery	ry Academic rou		tes to delivery	
Strategy to action: Academy and Professional Services	Simplify and rationalise professional services/ processes/procedures.		Strengthen employability, inclusion, reasons for firm choice recruitment.		
	Maximise benefits of information technology and digitisation.		Grow international experiences for our students.		
	Relentless focus on service/con improvement/partnership work		Expand challenge-led research from investigator-led research basis.		

Equality, diversity and inclusion are a central part of our efforts to realise this future. As a university we are ambitious to cultivate an inclusive environment which supports excellence in teaching, research and student and colleague experience.

Royal Holloway Leadership Structure





School of Engineering, Physical and Mathematical Sciences

Royal Holloway has six schools in total: Business and Management; Performing and Digital Arts; Engineering, Physical and Mathematical Sciences; Humanities; Law and Social Science; and Life Sciences and the Environment. Schools have clear authority to successfully manage teaching and research development. Executive Deans of School have a prominent role in institutional decision-making.

The School of Engineering, Physical and Mathematical Sciences, made up of five distinctive academic departments, is research-led and focussed on delivering the best education experience to its student. The school leadership team is made up of the Executive Dean, Vice-Dean for Education and Student Experience, Vice-Dean for Research, Vice-Dean for Equality, Diversity and Inclusion, the five Heads of Departments and the School Manager.

https://www.royalholloway.ac.uk/research-andteaching/departments-and-schools/schools/school-ofengineering-physical-and-mathematical-sciences/

Department of Computer Science

https://www.royalholloway.ac.uk/research-and-teaching/ departments-and-schools/computer- science/

Created in 1968, the Department is one of oldest computer science departments in the World. It has around 35 academic members of staff who teach a range of undergraduate and postgraduate courses. 93% of our students are in employment or further study within 15 months of graduating (The Times and Sunday Times Good University Guide, 2024). In 2023, we scored an average of 73.9% in 27 questions in the National Student Survey.

World class research

In the Research Excellence Framework 2021, the Department of Computer Science scored 17th for quality of research, with a 95% of its research rated world leading or internationally excellent. The Department pursues research in several areas, including algorithms and complexity, artificial intelligence, bioinformatics, distributed and global computing, machine learning, software language engineering and type theory.

Facilities

Departmental staff in Computer Science have offices in the recently refurbished Bedford Building, shared with the Information Security Group and the EPMS school administration team, on main campus.

Department of Electronic Engineering

https://www.royalholloway.ac.uk/research-and-teaching/ departments-and-schools/electronic- engineering/

As the School's youngest department, Electronic Engineering is founded on the maxim: **'Creativity first, science follows'.** The department achieved full 5-year accreditation for its BEng and MEng degrees in its first IET accreditation assessment. Since our first ever NSS in 2020, we have scored highly across all categories; the Complete University Guide 2024 has us as 1st in the UK for Student Satisfaction and 1st for Continuation. Overall we are ranked as 24th Department of Electronic Engineering in the UK out of a total of 75.

World class research

The Department's research areas range from microwave photonics to nanotechnology, immersive technology to novel computing, signal processing and power systems. In the recent 2021 REF exercise, the Department was judged to have 93% of its research output as world-leading or internationally excellent.

Facilities

The Shilling building offers large, modern lecture spaces for teaching, two well-equipped 80-seat electronic laboratories, a creative thinking room, a FAB(rication) laboratory with 3D printers, laser cutter and PCB machines, extensive social collaboration/private study spaces, and an 80-seat PC laboratory. On the roof there is a field laboratory with solar panels and a wind turbine to provide hands-on practical experience with renewable energy generation.

Department of Information Security https://www.royalholloway.ac.uk/research-and-teaching/ departments-and-schools/information-security

The Information Security Group (ISG) is a world-leading interdisciplinary department dedicated to research and education in the area of information (cyber) security. The ISG was created as a research and teaching group in 1990 and started the first MSc programme in Information Security in 1993 and a distance learning MSc in 2003. It became a department in 2012, and in 2014 the ISG partnered with the Department of Computer Science to provide a BSc/MSci programme in Computer Science (Information Security) and to contribute to the BEng/MEng programme. The ISG currently comprises twenty four academic staff, and is an interdisciplinary mix of computer scientists, mathematicians, engineers, and social scientists, supported by visiting academics, research assistants and a large number of research students, making the ISG one of the largest academic information security teams in the world.

World class research

Royal Holloway is recognised as a UK Academic Centre of Excellence in Cyber Security Research (ACE-CSR). The department works with a range of departments in the school, across Royal Holloway and beyond.

We are at the forefront in the development of secure communication and computer systems and offers independent expertise in a field where trust and integrity are paramount. In 2021, the ISG's research contributions spanned three REF units of assessment: UoA 10, 11 and 12.

Facilities

Departmental staff have offices in the recently refurbished Bedford Building, shared with the Computer Science and the EPMS school administration team, on the main campus. Within the building there are three dedicated laboratories for teaching and the Information Security Group has two specialist labs (i) The S₃ Lab (Systems and Software Security) and (ii) the Smart Card and IoT Research Centre.

Department of Mathematics

https://www.royalholloway.ac.uk/research-and-teaching/ departments-and-schools/mathematics/

Aiming for excellence in both research and teaching, the Mathematics is a community of 15 Academic Staff, all of whom are active researchers and teachers, 220 undergraduate students, and 13 PhD students. It holds an Athena SWAN Bronze award.

World class research

The Department of Mathematics pursues research in a wide range of topics in pure, applied and applicable mathematics, including algebra, discrete mathematics, number theory, quantum dynamics, information security and probability and statistics. It is home to CANTA, the Centre for Combinatorial Methods in Algebra, Number Theory and Applications. In the most recent Research Excellence Framework (REF 2021), 96% of the Department's research was rated as world leading or internationally excellent.

Facilities

Departmental staff in Mathematics have office space in the recently refurbished McRea Building on Main campus.

Department of Physics

https://www.royalholloway.ac.uk/research-and-teaching/ departments-and-schools/physics/

Royal Holloway is one of only six Physics Departments in the UK to have achieved Champion status in the Institute of Physics' Project Juno, which aims to address a range of equal opportunity issues .The Department also holds the Athena SWAN Silver Award from the Equality Challenge Unit, recognising exceptional commitment and excellence in the advancement of gender equality. The department has 26 academic staff.

World class research

In the most recent Research Excellence Framework (REF 2014), 86% of Physics research at Royal Holloway was rated world leading or internationally excellent. The Department of Physics pursues research in particle physics at the LHC including the Higgs boson, dark matter searches and neutrino experiments, particle astrophysics, accelerator physics, nanophysics and graphene, quantum matter, superconducting/ superfluid physics, quantum computing, as well as theoretical physics.

Facilities

Facilities include the London Low Temperature Laboratory, the Superfab nanofabrication facility, the John Adams Institute for Accelerator Science, Grid computing equipment and a Schimdt- Cassegrain telescope on the roof of our building. Our location means we are close to other major institutes such as the Science and Technology Facilities Council on the Harwell Campus and SEPnet as well as the National Physical Laboratory giving us access to further outstanding research facilities.



The role

Executive Dean

The Executive Dean is responsible for providing strategic leadership and management, enabling the school to deliver innovation and impact in research, knowledge exchange, education, student experience and outcomes, aligned to the university's strategic ambitions.

Reporting to the Provost & Pro-Vice-Chancellor (Global) the Executive Dean leads a senior team to develop a strategic vision and plan for the school and is accountable for its delivery and has overall budgetary responsibility for the school. They provide a focal point for collaboration and cross-discipline working between departments within the school and between the school and the wider university.

The Executive Dean will develop wider networks both nationally and internationally in furtherance of the interests of the school and university and in line with Royal Holloway's strategic direction.

Key tasks

Strategic leadership

- To lead the development and implementation of a strategic plan for the school, aligned to overarching university objectives, which draws on future-focussed analysis of the changing HE environment to develop strategic opportunities and manage risk.
- Working with the Pro-Vice Chancellor (Academic Strategy, Planning and Resources) through the planning process, set student recruitment and research income targets for the school in line with university targets, and ensure their achievement.



- To develop new income streams for the school, consistent with university and school strategies and goals.
- To be responsible for effective workforce planning within the school to assure delivery of the strategy.
- As a member of the university's academic planning committees, to actively participate in the overall strategic planning of the university and in the implementation of strategy, resource allocation and business development.

Academic leadership

- To lead and embed strategies which promote academic innovation in research and education across each of the school's departments and disciplines.
- To provide strategic direction and vision for the school to ensure the highest quality of education, outcomes and experience for students.
- To ensure that the school maintains the highest standards of academic performance, teaching quality and of innovation in learning and teaching.
- To develop and lead a culture of active student engagement within the school, including effective representation and course co-design.
- To develop and implement a strategy for continuous improvement in response to feedback from the National Student Survey.
- To be accountable for ensuring that the school is prepared for TEF, REF and KEF working closely with the Vice-Deans and Heads of Department.
- To ensure that information from the University is shared across the school in an open and timely fashion and ensure that there are opportunities for the School to feed in University initiatives and activities.
- To represent the school at a senior level, ensuring equal and appropriate representation for each department and discipline.
- To contribute to the overall leadership of Royal Holloway, particularly through membership of the Executive Board, Academic Board and the Leadership Forum.
- Act as a major incident responder and Gold lead as and when required by the University.

Leading people

- To demonstrate effective leadership and active rolemodelling on equality and diversity issues within the school, ensuring a culture of fairness and inclusion.
- To lead the school executive as the team responsible for the school strategy and its implementation.
- To lead, recruit, manage, develop and motivate highquality academic staff to create a culture of excellence, cross-discipline collaboration and respect within the school and across the university.
- Through the Performance Development Review process to set and actively review objectives and measurable outcomes of teaching and research success, linked to school and university strategy.
- To initiate and lead change within the school in pursuit of the university's strategic objectives.
- To foster and develop a culture of close working relationships and collaboration between academic and professional services staff.
- To work as a part of a collaborative team with fellow Executive Deans.

Managing resources

- To manage the physical and financial resources of the school in a professional and efficient manner to advance the implementation of the school's strategic plan and aligning with the environmental sustainability commitments of the wider university.
- In co-operation with the appropriate Director of Professional Service, to lead and take overall responsibility for the school's compliance with the university's codes of practice, operational standards, policies and procedures, regulations and relevant legislation, particularly in relation to health and safety, ethical issues, equality and diversity, data protection, the management of staff, the supervision of research students and the security of staff, students and property.



- To be accountable for financial performance within the school, managing income flow, investment in support of strategic goals, authorisations and budget planning. To ensure a fair and appropriate distribution of resources to departments within the school working in partnership with HR and Finance.
- External networking and liaison.
- To develop and maintain a network of external partners supporting the global and local ambitions of the school and university.

Other duties

The duties listed are not exhaustive and may be varied from time to time as dictated by the changing needs of the university. The postholder will be expected to undertake other duties as appropriate and as requested by their manager. The postholder may be required to work at any of the locations at which the business of Royal Holloway is conducted.

Key relationships

The following list is not exhaustive but the postholder will be required to work with: the Vice-Chancellor & Principal, Pro-Vice-Chancellors, other Executive Deans, Executive Directors and Directors of Professional Services and Students' Union representatives. Key professional service contacts include the Executive Director Student Journey, Director of Human Resources, Director of Strategic Communications and Marketing, Director of Strategic Planning, Recruitment and Admissions colleagues, Finance Business Partner and HR Business Partner. The postholder will from time to time be expected to attend Council and Council Committees.

The person

Knowledge, Education, Qualifications & Training

- Educated to PhD level or equivalent.
- Excellent understanding of the academic challenges and needs of all disciplines within the School.

Skills and/or Abilities

- Excellent strategic planning skills.
- Excellent leadership and teambuilding skills which demonstrate the University's Leadership Behaviours at senior level.
- Ability to lead and manage a multi-disciplinary team of senior colleagues effectively, inspiring confidence, collegiality and respect.
- Ability to effectively represent and provide leadership to academic disciplines outside of your own.

- Excellent resource and financial management skills.
- Ability to demonstrate and encourage excellent collaborative working within the School and between academics and professional services.

Experience

- Proven track record of success in academic leadership and line management.
- Successful academic track record demonstrated through promotion to Chair or equivalent industrial experience.
- Demonstrable success in developing and implementing future-focussed strategic plans for a department/team which maximise opportunities and manage risk.
- Experience of successfully leading change preferably within a University context.



14 odgersberndtson.com

How to apply

Royal Holloway, University of London has engaged the services of Odgers Berndtson, to whom applications should be sent by the closing date of **15th April 2024**.



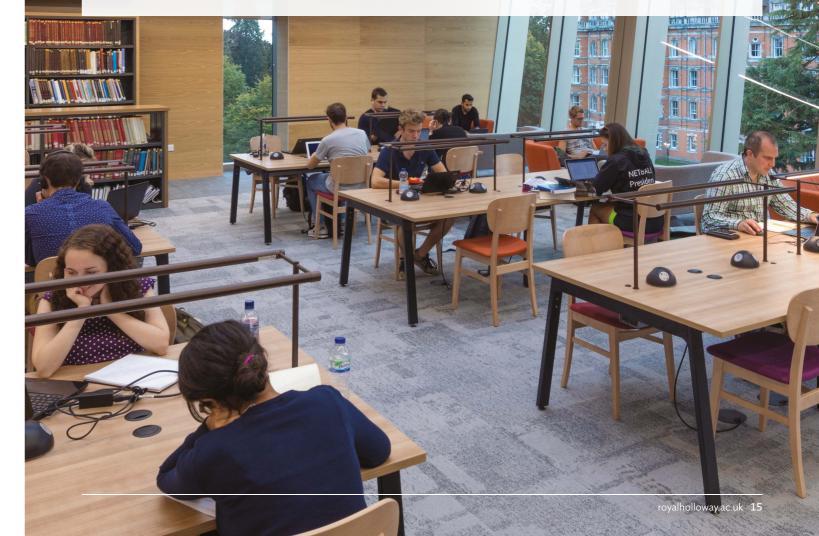
To apply, please submit a comprehensive curriculum vitae along with a covering letter setting out your interest in the role and details of how you match the required criteria. Please include in a separate document your current salary details and the names and addresses of three referees (one must be current employer)

The preferred method of application is online at www.odgers.com/91151

If you are unable to apply online, please email your application to <u>91151@odgers.com</u>

All applications will receive an automated response.

All candidates are also requested to complete an online Equal Opportunities Monitoring Form which will be found at the end of the application process. This will assist the University in monitoring selection decisions to assess whether equality of opportunity is being achieved.



or the School of Engineering, Physical and Mathematical Sciences (EPMS)

Any information collated from the Equal Opportunities Monitoring forms will not be used as part of the selection process and will be treated as strictly confidential.

Royal Holloway, University of London is wholly committed to equality, diversity and inclusion. Expressions of interest from diverse backgrounds and communities, especially with regards to age, disability, gender identity, sexual orientation, race, and religion or belief, and would therefore be particularly welcome.

Key dates

Preliminary interviews with Odgers will take place in early to late April/early May 2024

Interviews with Royal Holloway will take place on 21st and 22nd May 2024

Queries

For a confidential conversation about this opportunity, please contact:

Enfys Evans, Education Practice enfys.evans@odgersberndtson.com





royalholloway.ac.uk



odgersberndtson.com