Research Associate

Department	Design, Manufacture and Engineering Management (www.strath.ac.uk/engineering/designmanufacturingengineeringmanagement/)		
Faculty	Faculty of Engineering (www.strath.ac.uk/engineering/)		
Staff Category	Research	Reference No	607960
Reports To	The Head of School/Department, through	Grade:	7*
Salary Range:	£36,024 - £44,263*	Contract Type:	Fixed Term (for 3 years)
FTE:	1 (35 hours/week)	Closing Date	Friday, 21 June 2024

Job Advert

A Research Associate is sought to join the Department of Design, Manufacture and Engineering Management to undertake research in smart manufacturing within an EPSRC Transformative Healthcare Technologies project "Real time digital twin assisted surgery" (EP/X033686/1)". The Research Associate will carry out research and of digital twin of surgical procedures for the selected operations. The Research Associate will disseminate project information and knowledge through journal publications and conference presentations and contribute to lectures, tutorials and laboratories within the department, as appropriate.

As a Research Associate, under the general guidance of a research leader, you will develop research objectives and proposals, play a lead role in relation to a specific project/s or part of a broader project, conduct individual and/or collaborative research, contribute to the development of new research methods, identify sources of funding, and contribute to the securing of funds for research, including drafting grant proposals and planning for future proposals. You will write up research work for publication, individually or in collaboration with colleagues, and disseminate the results via peer reviewed journal publications and presentation at conferences. You will join external networks to share information and ideas, inform the development of research objectives and to identify potential sources of funding. You will collaborate with colleagues to ensure that research advances inform departmental teaching effort and you will collaborate with colleagues on the development of knowledge exchange activities by, for example, participating in initiatives which establish research links with industry and influence public policy and the professions. You will supervise student projects, provide advice to students and contribute to teaching as required by, for example, running tutorials and supervising practical work. You will contribute in a developing capacity to Department/School, Faculty and/or University administrative and management functions and committees and engage in continuous professional development.

To be considered for the role, you will be educated to a minimum of PhD level in an appropriate discipline, or have significant relevant experience in addition to a relevant degree. You will have sufficient breadth or depth of knowledge in computer science, robotics, automation and control, mechatronics or precision instrument and a developing ability to conduct individual research work, to disseminate results and to prepare research proposals. You will have an ability to plan and organise your own workload effectively and an ability to work within a team environment. You will have excellent interpersonal and communication skills, with the ability to listen, engage and persuade, and to present complex information in an accessible way to a range of audiences.

Whilst not essential for the role, applications are welcomed from candidates with: relevant work experience, membership of relevant Chartered/professional bodies (including the Higher Education Academy), experience of relevant student supervision and teaching activities, and/or experience of knowledge exchange related activities.

*While Research Associates with successfully completed PhDs are ideally sought for this position, applications from candidates who are close to completing the write-up of their PhD are also welcome. Dependent on the profile and experience of the candidate, the appointment may be made at Research Assistant level (RS06 salary scale £31,396 - £34,980) and duties will be adjusted to reflect the grade of the post.

Job Description

Brief Outline of Job:

To undertake a specific research project/s under the general guidance of a research leader; to establish a personal research portfolio and plan research proposals, with assistance from senior colleagues as required; to engage where required in relevant teaching, professional and knowledge exchange activities; and input to administrative activities.

Main Activities/Responsibilities:

1.	As part of a wider research group or programme, develop research objectives and proposals for own or joint research and play a lead role in relation to a specific project/s or part of a broader project, with guidance from senior colleagues as required.
2.	Plan and manage own workload, with guidance from colleagues as required.
3.	Conduct individual and/or collaborative research, including determining appropriate research methods and contributing to the development of new research methods.
4.	Identify sources of funding and contribute to the securing of funds for research, including drafting grant proposals and planning for future proposals.
5.	Write up research work for publication, individually or in collaboration with colleagues, and disseminate results as appropriate to the discipline by, for example, peer reviewed journal publications and presentation at conferences.
6.	Join external networks to share information and ideas, inform the development of research objectives and to identify potential sources of funding.
7.	Collaborate with colleagues to ensure that research advances inform departmental teaching effort.
8.	Collaborate with colleagues on the development of knowledge exchange activities by, for example, participating in initiatives which establish research links with industry and influence public policy and the professions.
9.	Supervise student projects, provide advice to students and contribute to teaching as required by, for example, running tutorials and supervising practical work.
10.	Contribute in a developing capacity to Department/School, Faculty and/or University administrative and management functions and committees.
11.	Engage in continuous professional development.

Person Specification

Educational and/or Professional Qualifications (E=Essential, i.e. a candidate must meet all essential criteria to be considered for selection, D=Desirable)	**Essential/ Desirable**	**Assessment Method**
E1 Good honours degree and PhD (or equivalent professional experience) in an appropriate discipline i.e. computer science, robotics, automation and control, mechatronics or precision instrument.	Essential	Application/CV
D1 Membership of relevant Chartered/professional bodies (including Higher Education Academy).	Desirable	Application/CV
Experience		
E2 Sufficient breadth or depth of knowledge in the relevant discipline/s to contribute to research programmes and to the development of research activities.	Essential	App/CV/ Interview
E3 Hand-on work experience of development of digital twin platform, including software, hardware and system integration	Essential	App/CV/ Interview
E4 Experience of precision motion control, or haptics.	Essential	App/CV/ Interview
E5 Experience of computer vision technology, AR/VR/XR and AI.	Essential	App/CV/ Interview
E6 Track record of securing research funding and/or potential to lead successful research bids.	Essential	App/CV/ Interview
D2 Some relevant work experience.	Desirable	Application/CV

D3	Experience of relevant student supervision and teaching activities.	Desirable	App/CV/ Interview
D4	Experience of knowledge exchange related activities.	Desirable	App/CV/ Interview
Job Related Skills and Achievements			
E7	Developing ability to conduct individual research work, to disseminate results and to prepare research proposals.	Essential	App/CV/ Interview
E8	Ability to plan and organise own workload effectively.	Essential	Interview
E9	Ability to work within a team environment.	Essential	App/CV/ Interview
Personal Attributes			
E10	Excellent interpersonal and communication skills, with the ability to listen, engage and persuade, and to present complex information in an accessible way to a range of audiences.	Essential	App/CV/ Interview

Application Procedure

Applicants are required to complete an application form including the name of three referees who will be contacted without further permission, unless you indicate that you would prefer otherwise. Applicants should also submit a Curriculum Vitae and a covering letter detailing the knowledge, skills and experience you think make you the right candidate for the job. Applicants should also complete the Equal Opportunities Monitoring Form.

Other Information

Further information on the application process and working at Strathclyde can be found on our website (http://www.strath.ac.uk/hr/workforus).

Informal enquiries about the post can be directed to Professor Xichun Luo (xichun.luo@strath.ac.uk).

Conditions of Employment

Conditions of employment relating to the Research staff category can be found at: Conditions of Employment.

Rewards and Benefits

Our staff have access to a wide range of outstanding benefits that include financial rewards, family friendly and wellbeing benefits and career development opportunities, details of which can be found here.

Probation

Where applicable, the successful applicant will be required to serve a **9** month probationary period.

Pension

The successful applicant will be eligible to join the Universities' Superannuation Scheme. Further information regarding this scheme is available from Payroll and Pensions.

Relocation

Where applicable, the University offers a relocation package to support new employees who meet the eligibility criteria. The relocation package is offered as a contribution towards costs incurred, and is designed to be flexible, allowing staff to use the financial support available in the way that will be most helpful to them. Further details are outlined in the Relocation Policy.

Interviews

Formal interviews for this post are scheduled to be held on Thursday, 16 May 2024.

Equality and Diversity

The University of Strathclyde is a socially progressive institution that strives to ensure equality of opportunity and celebrates the diversity of its student and staff community. Strathclyde is people-oriented and collaborative, offering a supportive and flexible working culture with a deep commitment to our equality, diversity and inclusion charters, initiatives, groups and networks.

We strongly encourage applications from Black, Asian and minority ethnicity, women, LGBT+, and disabled candidates and candidates from lower socio-economic groups and care-experienced backgrounds.

University Values

The University's Values capture what we're all about: who we are, what we believe in and what we stand for. Our Values have been derived from how we act and how we expect to be treated as part of Strathclyde.