Postdoctoral Researcher

Department	Department of Biomedical Engineering		
Faculty	Faculty of Engineering (www.strath.ac.uk/engineering/)		
Staff Category	Research	Reference No	631524
Reports To	The Head of School/Department, through	Grade:	7
Salary Range:	£36024 - £44263	Contract Type:	Fixed Term (until 01 November 2024)
FTE:	1	Closing Date	Monday, 15 July 2024

Job Advert

We are recruiting a full-time Postdoc Researcher (PDRA) to conduct phantom experiments using a newly developed low-cost diffuse correlation spectroscopy (DCS) instrument funded by EPSRC QuantiC. The PDRA must be experienced in DCS theory/instrumentation (having a track record in publication), optical system design, optoelectronics (with experience in handling lasers & CMOS single-photon sensors), mechanical system design, and machine-learning with strong analytical, instrumentation and innovation skills. As we will perform phantom experiments with tissue-like materials at a medical school, the candidate must have experience working in a multi-disciplinary environment and be a team player to work in a team.

As a PDRA, you will assist in the delivery of the research activities as part of a team, working under the general supervision of senior colleagues. You will conduct literature reviews, conduct surveys, collect and collate data, and undertake and record the outcomes of experiments. You will manage and prioritise your own workload and ensure that all activities are completed to deadlines and you will write up the results of your own research and contribute to the production of research reports and publications. You will input as a team member to administrative activities and assist, where required, with relevant teaching and knowledge exchange activities.

To be considered for the role, you will be educated to a minimum of PhD degree level in optical engineering, optical system design or instrumentation and you will have sufficient breadth or depth of knowledge in diffuse correlation spectroscopy You will have knowledge of appropriate research methods, have an ability to plan and prioritise your own workload, with general supervision, and you will have 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.

Job Description

Brief Outline of Job:

To assist in the delivery of research activities as part of a team, working on an established research programme/s under the general supervision of senior colleagues; to input as a team member to administrative activities; to assist where required with relevant teaching and knowledge exchange activities.

Main Activities/Responsibilities:

1.	Develop and characterise our diffuse correlation spectroscopy (DCS) prototypes using the latest CMOS single-photon avalanche diode sensors and conduct tissue-like phantom experiments, conduct IP protection and exploitation activities, and publish research outcomes.
2.	Manage and prioritise own workload within agreed objectives to ensure that all activities are completed to deadlines.

3.	Write up results of own research and contribute to the production of research reports and publications.
4.	Contribute to the planning of research programmes.
5.	Assist with professional and knowledge exchange activities as required.
6.	Assist with the supervision of student projects and the delivery of introductory classes as required.
7.	Input as a team member to Department/School, Faculty and/or University administrative activities.
8.	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)	
E1	At least PhD level in optical engineering, optical system design or instrumentation. The candidate must have experience in diffuse correlation spectroscopy as the project only has a limited period.
D1	Membership/working towards membership of relevant Chartered/professional bodies (including Higher Education Academy).
Experience	
E2	Solid experience in DCS theory/instrumentation (having a track record in publication in this area), optical system design, optoelectronics (with experience in handling lasers & CMOS single-photon sensors), mechanical system design, and machine-learning with strong analytical, instrumentation and innovation skills. Experience in handling tissue-like materials for phantom experiments.
D2	Some relevant work experience.
D3	Experience of relevant student supervision and teaching activities.
Job Related Skills and Achievements	
E3	Strong analytical and innovation skills
E4	Ability to plan and organise own workload effectively with general supervision from senior colleagues.
E5	Ability to work within a multidisciplinary team environment.
D4	Experience of knowledge exchange related activities.
Personal Attributes	
E6	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.

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 David Li, Senior Lecturer (david.li@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.

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.