



Research Associate

Department	Electronic and Electrical Engineering (www.strath.ac.uk/engineering/electronicalelectricalengineering/)		
Faculty	Faculty of Engineering (www.strath.ac.uk/engineering/)		
Staff Category	Research	Reference No	629663
Reports To	Head of Department/Institute, through Dr Bruce Stephen	Grade	7*
Salary Range	£36024 - £44263*	Contract Type	Fixed Term (Until 31st March 2026)
FTE	1 (35 hours/week)	Closing Date	04/08/2024
Holidays	31 days + 11 statutory days Option to purchase additional holidays.	On Site Facilities	Car parking, sports centre, catering.
Working Arrangements	Hybrid. The standard requirement across the University is that at least three days per week (based on 1FTE) will be spent working on-site (with flexibility as appropriate).		
Pensions	Contributory pension scheme available to all staff including generous employer contribution.		
Training	Professional Development with Organisational and Staff Development Unit (OSDU) plus external training if required.		
Family Friendly Benefits	Generous parental leave provision, on-campus nursery and options for flexible working.		
Health and Wellbeing	University Sport centre, Occupational Health service, access to health and wellbeing events, cycle to work scheme, Employee Assistance Programme, agile working and established carers support network and carer friendly policies.		

Job Advert

Research Associate: Advanced Substation Partial Discharge Monitoring (ASPDm): Data analysis, diagnostic and predictive model development, data visualisation.

Fixed Term: Until 31st March 2026 (with possibility of funding extension)

This University of Strathclyde Research Associate (RA) position is funded through a National Grid Electricity Transmission (NGET) research project titled "Advanced Substation Partial Discharge Monitoring". The focus of the RA position is to permit condition assessment and long-term substation asset management. The project aims to develop new partial discharge (PD) condition monitoring assessment strategies for substation assets to evaluate electrical insulation breakdown and potential asset degradation. The project will collaborate closely with NGET and Doble Engineering in the UK, an international leading substation condition monitoring company.

Department of Electronic and Electrical Engineering (EEE)

The Department of Electronic and Electrical Engineering is internationally recognised for its research excellence, industrial engagement and first-class teaching programmes. Further information on the Department can be found at <https://www.strath.ac.uk/engineering/electronicalelectricalengineering/>. The successful candidate will join the High Voltage Technologies (HVT) Research Group within the Department, which has a long-standing research track-record in high voltage insulation, pulsed power technologies and electrical condition monitoring.

The RA Position

This is a very exciting opportunity to develop intelligent systems for the prognosis and diagnosis of faults in power network assets. Working closely with a number of different industry partners, this collaboration will create urgently required analytics for accurate and informed decision-making, risk management, and various other functions that will be required for future power network asset management. This will involve experimental design, software development and data science, carrying out research and development of models to predict and diagnose power network asset health condition. Candidates will be expected to have expertise and track record in some or all of the areas listed below. Individuals with complementary expertise will be considered, so please do apply even if you only meet some of the criteria below:

- Power and energy systems – including condition monitoring and asset management of the components of such systems.
- Requirements capture and experimental design.
- Data Science – handling and processing large data sets (experience across multiple domains welcome).
- Artificial Intelligence – including predictive modelling, pattern analysis and recognition.
- Software development and testing experience – ideally in power and energy, but experience in other areas will also be considered.

As a Research Associate, under the general guidance of a PI, 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. Research work will be written up for publication in collaboration with colleagues, and dissemination of the results will be via peer reviewed journal publications and presentation at conferences. You will have the opportunity 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, candidates will be educated to a minimum of PhD level in an appropriate discipline, or have significant relevant work experience in addition to a relevant degree. You will have sufficient breadth or depth of knowledge in instrumentation, data capture methods and data analysis methods 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)

E1 Good honours degree and PhD (or equivalent professional experience) in an appropriate discipline

D1 Membership of relevant Chartered/professional bodies (including Higher Education Academy).

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.

E3 Some relevant work experience.

D2 Experience of relevant student supervision and teaching activities.

D3 Experience of knowledge exchange related activities.

D4 Knowledge of power systems.

Job Related Skills and Achievements

E4 Developing ability to conduct individual research work, to disseminate results and to prepare research proposals.

E5 Ability to plan and organise own workload effectively.

E6 Ability to work within a team environment.

Personal Attributes

E7 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.

E8 Willingness to travel to attend international conferences and industrial meetings.

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/workforum>).

Informal enquiries about the post can be directed to **Dr Bruce Stephen, Senior Lecturer** (bruce.stephen@strath.ac.uk, 0141 444 7260) or **Professor Brian G. Stewart, Professor of High Voltage**, (brian.stewart.100@strath.ac.uk, 0141 548 2171)

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, 22 August 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.

