

# Research Associate

Department	Pure and Applied Chemistry ( <a href="http://www.strath.ac.uk/science/chemistry/">www.strath.ac.uk/science/chemistry/</a> )		
Faculty	Faculty of Science ( <a href="http://www.strath.ac.uk/science/">www.strath.ac.uk/science/</a> )		
Staff Category	Research	Reference No	269539
Reports To	Dr Alison Nordon	Grade:	7
Salary Range:	£32,817 - £36,914 restricted due to funding	Contract Type:	Fixed Term (24 months)
FTE	1 (35 hours/week)	Closing Date	16/02/2020

## Job Advert

Applications are invited for a Research Associate with experience in multivariate data analysis to work on a project entitled 'Data analytics for digital manufacturing and healthcare'. This new Post-Doctoral Researcher position is funded by the Community of Analytical Measurement Science (CAMS), which is an industry-led initiative dedicated to world class analytical measurement science training, research and innovation. The project is an excellent opportunity for researchers with skills in multivariate mathematics and is suitable for candidates from a range of disciplines including analytical science, engineering, chemistry, physics, mathematics, statistics and management science.

There are tremendous opportunities afforded by adoption of digital technologies in both the pharmaceutical industry and for healthcare. While the types of measurements might be very different, common to both digital manufacturing and healthcare is the need to understand and combine different types of data for in situ monitoring and diagnostic purposes, whether it be of a manufacturing process or a patient. Therefore, the aim of this project is to advance data analytics for real-time process and patient performance monitoring, based on point of use (i.e. in situ) measurements, in the pharmaceutical manufacturing and healthcare sectors, respectively. You will be required to develop software (inferential) sensors, estimate the uncertainty of measurements and utilise multivariate statistical process control methods for performance monitoring in the pharmaceutical manufacturing and healthcare sectors. You will interact with academics and industrialists in the Centre for Process Analytics and Control Technology (CPACT) and the Centre for Continuous Manufacturing and Advanced Crystallisation (CMAC), which are academia-industry consortia led by the University of Strathclyde, and industrial partners in CAMS.

Knowledge and experience of multivariate data analysis is essential, and knowledge of in situ measurements is desirable. You will have a good honours degree and PhD (or equivalent professional experience) in an appropriate discipline.

## Job Description

### Brief Outline of Job:

To undertake research in data analytics for digital manufacturing and healthcare under the general guidance of Dr Alison Nordon.

### Main Activities/Responsibilities:

1.	To carry out research in the area of multivariate data analysis that contributes to the aims of the project
2.	Develop research objectives and proposals, and play a lead role in research activities related to multivariate data analysis, with guidance from colleagues as required
3.	Plan and manage own workload, with guidance from colleagues as required

4.	Conduct individual and collaborative research, including determining appropriate research methods and contributing to the development of new research methods
5.	Write up research work for reports and publications, in collaboration with colleagues, and disseminate results through peer-reviewed publications and presentations at conferences
6.	Collaborate with colleagues on the development of knowledge exchange activities by participating in initiatives which establish research links with industry
7.	Supervise student projects, provide advice to students and contribute to postgraduate training as required
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 Good honours degree and PhD (or equivalent professional experience) in an appropriate discipline such as analytical science, engineering, chemistry, physics, mathematics, statistics and management science, which covers multivariate mathematics

### Experience

- E2 Sufficient breadth or depth of knowledge in the relevant disciplines to effectively contribute to the research programme and to the development of research activities
- E3 Knowledge and experience of multivariate data analysis
- D1 Knowledge of in situ measurements
- D2 Experience of knowledge exchange related activities
- D3 Experience of student supervision

### Job Related Skills and Achievements

- E4 Developing ability to conduct individual research work and to disseminate results
- E5 Ability to plan and organise own workload effectively
- E6 Ability to work independently and as part of a team
- E7 Ability to liaise effectively with academic and industrial partners

### Personal Attributes

- E8 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 before interview 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 Alison Nordon, Reader ([alison.nordon@strath.ac.uk](mailto:alison.nordon@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

It is anticipated that formal interviews for this post will be held in early March 2020.

## Equality and Diversity

We value diversity and welcome applications from all sections of the community.

The University currently holds a Bronze Athena SWAN award, recognising our commitment to advancing women's careers in science, technology, engineering, maths and medicine (STEMM) employment in academia.

## 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.

