Centre for Agroecology, Water and Resilience (CAWR)

JOB DESCRIPTION & PERSON SPECIFICATION

1. JOB INFORMATION

Post Title:	**Research Fellow**
Grade:	**7**
Salary:	**Competitive starting salary range from £38,784 up to £42,254 per annum (dependent upon experience) with the potential to progress. A discretionary range for candidates with exceptional experience can be discussed/considered**
Mode:	**Full Time, 7 Month Fixed Term Contract**
Ref:	**3881**

2. JOB DESCRIPTION

.1 Job Purpose

This Research Fellow position offers an exciting opportunity for an early career researcher to contribute to the UKRI-funded project "H_2R: Portable Circular System for Greywater & Rainwater Treatment and Reuse". This post will be based at the Centre for Agroecology, Water and Resilience (CAWR), Coventry University.

As part of the H2R project, the Research Fellow role will support research activities in the project on building and bench-testing the integrated H_2R prototype and undertaking water quality analysis at CAWR's High-Performance Analytical Hub, and leading field trials on two sites (in London and Coventry).

This will include sampling, sample preparation, and analysis of influents and effluents from the integrated H_2R system for target water quality parameters (pH, turbidity, *E. coli*, BOD, COD, ionic/elemental/organic pollutant composition, etc.), using standard methods and a range of instrumental techniques, including Ion Chromatography (IC), Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES), Inductively Coupled Plasma Mass Spectrometry (ICP-MS), and Liquid Chromatography High-Resolution Mass Spectrometry (LC-HRMS).

.2 Duties and Responsibilities

1. Plan and manage own research activity, including:

- Designing, conducting and recording outcome of experiments and fieldwork.
- Designing and managing data collection through interviews, focus groups and survey.
- Designing and managing equipment, rig-design, software, instrumentation.
- Designing and conducting literature and database searches and preparing reviews of findings.
- Designing and/or undertaking data coding.

- Ensuring data quality assurance procedures.
- Analysis, interpretation and evaluation of research outcomes.

2. Develop research objectives and proposals for own or joint research, that incorporates the principles of impact planning. Contribute to impact activities in larger projects, under the direction of the Principal Investigator. Contribute to REF impact rated nationally/internationally excellent.

3. Identify new areas for research, develop new research approaches, apply innovative research methods and extend the research portfolio.

4. Prepare proposals and applications to external bodies, e.g. for funding and contractual purposes.

5. Plan and manage small-scale research activities using resources, laboratories and workshops as appropriate.

6. Communicate complex research information using a range of methods and media, including to the public where appropriate. This may include material of a specialist or highly technical nature.

7. To undertake the publication of your research results and outcomes with a view to developing a national/international profile. To publish in a variety of formats including via the project's website and through singularly-authored and collaborative peer-reviewed papers.

8. Build internal and external contacts, participate in internal networks for the exchange of information and form relationships for future collaboration. Join external networks to share information and identify potential sources of funds.

9. Undertake supervision of staff and/or students. Co-supervise projects at Masters Level and supervise research students with support.

10. Continually update knowledge and understanding in the discipline and develop new research techniques and approaches to enable contribution within established research programmes.

11. Contribute to teaching, learning and development programmes as appropriate, using research findings to inform curriculum development.

12. Support assessment of student knowledge and supervision of projects; assist in the development of student research skills.

    AND other such duties as are within the scope and spirit of the job purpose, the title of the post and its grading.

3. PERSON SPECIFICATION

ATTRIBUTES	ESSENTIAL	ADVANTAGEOUS
Education/ Qualifications	PhD or equivalent (where equivalence is having evidence of a submitted thesis by the closing date for applications and award within Probation) in Chemistry, Instrumental Analysis, Environmental/Chemical Engineering, Environmental Chemistry. Or relevant discipline or professional experience equivalent to a PhD demonstrating an ability to carry-out independent research. Good degree (1st class or 2.1) in an appropriate subject such as chemistry, environmental/chemical engineering, environmental chemistry.	Masters qualification in an appropriate subject such as Chemistry, Instrumental Analysis, Environmental/Chemical Engineering, Environmental Chemistry.
Experience (Paid and Unpaid)	Prior research experience related to Chemistry, Instrumental Analysis, Environmental/Chemical Engineering, Environmental Chemistry. Research sufficient to produce excellent, high-quality publications and to communicate the results of their work to the wider public. Previous experience of active involvement in research at university level.	Support of teaching and postgraduate project supervision in a Higher Education Institution. Participated in successful applications for research funding. Ability to contribute to the development of high-quality research grant applications and to take part in funded research projects. Ability to carry out public engagement, policy engagement and knowledge transfer activities. Experience of collaborative, interdisciplinary or cross-disciplinary research.

Research/Publications Special Interests	Ability to write up research for publication in high profile peer reviewed journals and present at national/international peer-reviewed conferences and events. A record of disseminating research outputs at appropriate conferences. Demonstrable up to date knowledge and understanding of relevant discipline and contribute to innovation and development in own field. Ability to lead and/or take responsibility for a small research project or identified parts of a large project Interest in and enthusiasm for the subject matter of the project(s) Collecting evidence of research impact.	Assisted Principal Investigators prepare research-funding bids. Ability to collaborate with other researchers and produce appropriate collaborative outputs.
Job-related skills/ Aptitudes	Advanced knowledge of research methods and techniques used in Instrumental Analysis, Environmental/Chemical Engineering, Environmental Chemistry. Demonstrate adherence to regulations e.g. ethics, legal requirements. Competency to conduct individual and collaborative research projects. Ability to develop research objectives, projects and proposals for own and joint research, with the assistance of a mentor if required. Ability to manage time and work to strict deadlines. Good formal presentation skills. Use of relevant project management, survey and	Research project management skills. Ability to manage a research project including supervision of the work of others and/or provision expert advice and guidance to teams. Ability to identify sources of funding and contribute to the process of securing funds, with collaborators if required.

	other specialist research software. IT skills to include familiarity with Microsoft office suite and internet/ e-mail. Literature search skills including electronic databases.	
Interpersonal Skills	Excellent interpersonal, oral and written communication skills, using a range of media. Aptitude for working collaboratively on research development, delivery and dissemination. Highly self-motivated and organised, flexible, independent, innovative, creative thinker and able to tolerate working with different styles. Aptitude for working as part of a team Commitment to working on interdisciplinary or cross-disciplinary research. Commitment to public engagement and knowledge exchange. Flexible approach to work. Presents a professional image to a range of external client groups/ stakeholders. Cultural sensitivity and a commitment to equal opportunities.	
Other Requirements	Able to take responsibility for developing their own career in partnership with the University. May be required to work outside of normal 8.30 am to 5.00 pm hours including weekends, on occasion. Willingness to travel nationally and internationally.	