**Job Description: Research Assistant in Local Regeneration of Activated Carbon**

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| **Faculty:** | **Faculty of Science and Engineering** |
| **Department/Subject:** | **Chemical Engineering** |
| **Salary:** | **Grade 7: £32,982 to £37,099 per annum** |
| **Hours of work:** | **Full time** |
| **Number of positions:** | **1** |
| **Contract:** | **This is a fixed term position for 12 months duration** |
| **Location:** | **This position will be based at the Bay Campus** |

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| **Main Duties** | 1. Perform an extensive series of experimental tests on chemical regeneration of granular activated carbon (GAC) used in water treatment. 2. Evaluate the physico-chemical properties of treated and untreated GAC (capacity, FTIR, BET, SEM, etc.). 3. Conduct data analysis, understand the effect of various chemical regeneration methods on GAC properties, and ascertain the best regeneration regime. 4. Based on lifecycle assessment, ascertain potential cost and carbon footprint savings of local GAC regeneration. 5. Liaise effectively with all partners working in this project and report findings on a regular basis to academic and industrial collaborators. 6. Conduct literature review and draft academic papers for publication in specialist high-impact journals. |
|  | 1. Pro-actively contribute to and conduct research, including gather, prepare and analyse data, generate original ideas and present results. 2. Prepare reports, draft patents and papers describing the results of the research, both confidential and for publication. 3. Be self-motivated, apply and use their initiative, aiming to determine suitable ways to tackle challenges and seeking guidance when needed. 4. Interact positively and professionally with other collaborators and partners within the Faculty and elsewhere in the University and beyond as appropriate such as in industry and academia. 5. Contribute to Faculty organisational matters in order to help it run smoothly and to help raise its external research profile. 6. Keep informed of developments in the field in technical, specific and general terms and their wider implication for the discipline area, commercial applications and the knowledge economy. 7. When requested act as a representative or member of committees, using the opportunity to extend their own professional experience. 8. Demonstrate and evidence own professional development, identifying development needs with reference to the Vitae Researcher Development Framework, particularly with regard to probation, PDR and participation in training events. 9. Maintain and enhance links with the professional institutions and other related bodies. 10. Observe best-practice protocols in maintenance and retention of research records as indicated by HEI and Research Councils records management guidance.  This includes ensuring project log-book records are deposited with the University/Principal Investigator on completion of the work. |
| **General Duties** | 1. To promote equality and diversity in working practices and maintain positive working relationships. 2. To conduct the job role and all activities in accordance with safety, health and sustainability policies and management systems, in order to reduce risks and impacts arising from the work activity. 3. To ensure that risk management is an integral part of any decision making process, by ensuring compliance with the University’s Risk Management Policy. 4. Any other duties as agreed by the Faculty / Directorate / Service Area. |
| **Person Specification** | **Essential criteria:**   1. A Degree in Chemical Engineering, Chemistry, Environmental Engineering or equivalent or a postgraduate qualification in Water Engineering or equivalent. 2. Evidence of the ability to actively engage in and contribute to writing and publishing research papers, particularly for refereed journals. 3. A demonstrable ability to conduct research in line with the objectives of the project. 4. Evidence of planning skills to contribute to the research project. 5. Evidence of the ability to manage own research and administrative activities to meet deadlines. 6. A commitment to continuous professional development   **Desirable Criteria**   1. Experience in water treatment using GAC and/or advanced oxidation 2. Experience in chromatographic methods for water analysis |
| **Welsh Language Level** | Level 1 – ‘a little’ - pronounce Welsh words. Able to answer the phone in Welsh (good morning / afternoon). Able to use very basic every-day words and phrases (thank you, please etc.). Level 1 can be reached by completing a one-hour training course.  For more information about the Welsh Language Levels please refer to the Welsh Language Skills Assessment web page, which is available [here](https://www.swansea.ac.uk/welsh-language-standards/compliance/recruitment/). |
| **Additional Information** | Informal enquiries: Prof Chedly Tizaoui (c.tizaoui@swansea.ac.uk) |

  