

Academically Advanced Socially Progressive

Great minds. Innovative Solutions.

Geotechnical Engineer/Senior Geotechnical Engineer (KTP Associate)

Department	Civil and Environmental Engineering (www.strath.ac.uk/engineering/civilenvironmentalengineering/)		
Faculty	Faculty of Engineering (www.strath.ac.uk/engineering/)		
Staff Category	Knowledge Transfer Partnership (KTP)	Reference No	685890
Reports To	Professor Rebecca Lunn (Knowledge Base Supervisor); Sarah Sherratt (Company Supervisor)	Grade	RS79
Salary Range	Up to £45k depending on qualifications/experience plus £4,000 training and development budget	Contract Type	Fixed Term (23 months)
FTE	1 (35 hours/week)	Closing Date	28/02/2025



Great Minds. Innovative Solutions.

The University of Strathclyde is a charitable body, registered in Scotland, number SC015263



University of
Strathclyde
Glasgow



Royal Charter
since 1964
Useful Learning
since 1796



Academically Advanced Socially Progressive

Great minds. Innovative Solutions.



Job Advert

The Department of Civil and Environmental Engineering in partnership with BAM Ritchies (<https://www.bamnuttall.co.uk/groundengineering/>) are seeking to appoint an Engineer/Senior Engineer (KTP Associate) in the area of Ground Engineering.

BAM Ritchies are a specialist ground engineering business and they are part of BAM UK&I who are a civil engineering and construction contractor. The core technical capabilities of BAM Ritchies' staff relate to civil engineering, geotechnical engineering and geology. The company aims to revolutionise the carbon footprint of ground engineering by commercialising microbially induced calcium carbonate precipitation (MICP) as a repair strategy for civil infrastructure such as coastal defences and rail embankments.

The KTP will focus on translating the MICP technology developed at Strathclyde into engineering practice. The KTP will develop the skills required to implement MICP at field-scale and will lead on developing the commercial opportunity for MICP with potential clients. As the project progresses, the KTP will develop and grow capable teams within the business to deliver pilot MICP projects and build a future market and client base for the product.

The Associate will be employed by the University of Strathclyde but spend the majority of their working time at the company's premises in Kilsyth. During the first 6-months of the role, the KTP will spend a significant proportion of their time training to implement MICP at Strathclyde, after which they will transition to predominantly working at BAM Ritchies premises in Kilsyth.

To be considered for the KTP, the ideal candidate will have a solid background in civil or environmental engineering. They should be a self-starting and inquisitive individual with a strong grasp of hydraulics and geotechnics. Prior knowledge of the MICP process is not required, but a willingness and enthusiasm to learn new skills in environmental engineering is essential.

We value individuals who display excellent communication skills, enabling them to collaborate effectively with various teams within the organization and to bridge the gap between the technical delivery and the opportunities for business development. The candidate's strong problem-solving abilities will play a pivotal role in delivering practical on-site procedures and successful trials.

This strategic appointment offers potential growth opportunities within the company, as the future Head of Biocementation in Ground Engineering. At the end of the 30-month project, the KTP will transfer to a permanent position within the company and continue to develop the commercial opportunity.

The position offers the KTP Associate the following benefits:

Great Minds. Innovative Solutions.

The University of Strathclyde is a charitable body, registered in Scotland, number SC015263



University of
Strathclyde
Glasgow



Royal Charter
since 1964
Useful Learning
since 1796



Academically Advanced Socially Progressive

Great minds. Innovative Solutions.

- £2,000 per year to spend on personal training
- A permanent position with the company;
- Fast track your career
- Own your own project, managing project teams and delivering positive change toward reducing the carbon footprint in construction
- Manage your own substantial training and development budget (you can also use this to attend conferences, cover membership of professional bodies etc.)
- You'll 'own' your own project, linked to both a university and a business whose experienced teams will provide you with full support. Applying academic knowledge to a real-world challenge, this is a chance to deliver impact and shape your career.
- A fulfilling employment opportunity where you can apply your knowledge to turn a key strategic innovation idea in to reality
- The chance to manage a challenging, real-world project
- An opportunity to tailor-make your role, as each KTP Associate position is unique
- The chance to implement strategic development within an innovative company
- You can choose a variety of training modules during your KTP: project management, marketing and communication, finance, leadership and/or personal development, as well as job-specific technical training.

The project is part of the Knowledge Transfer Partnership (KTP) programme that aims to help businesses to innovate and grow by working with UK universities. Successful Knowledge Transfer Partnership projects are funded by UK Research and Innovation through Innovate UK and are part of the government's Industrial Strategy. To find out how KTP works and the vital role you will play if you successfully secure a KTP Associate position please visit: www.ktpws.org.uk

Job Description

Brief Outline of Job:

The Associate will be expected to work at BAM Ritchies premises in Kilsyth, but will be employed by and have access to facilities at the University of Strathclyde.

Main Activities/Responsibilities:

1. Develop and document a construction process and management document (e.g. WP3.6/4.4) to detail all stages of the MICP process including; bacteria growth, injection protocols and post-treatment assessment methods.
2. Develop an understanding of, and document, the supply chain requirements for materials, bacterial cultivation and injection equipment.
3. Develop and implement quality testing methods and thresholds for acceptance.

Great Minds. Innovative Solutions.

The University of Strathclyde is a charitable body, registered in Scotland, number SC015263



University of
Strathclyde
Glasgow



Royal Charter
since 1964
Useful Learning
since 1796



Academically Advanced Socially Progressive

Great minds. Innovative Solutions.

4. Design MICP treatment injection strategies for delivering specific pilot projects and, ultimately, for commercial projects
5. Determination of suitable injection equipment and protocols to achieve the desired level of treatment in the ground
6. Organise training and workshops with BAM Ritchies staff to ensure that they have an in depth understanding of the technological developments developed during the KTP project, and have an opportunity to witness the results of the project first hand where possible
7. Develop a training programme that can be delivered to relevant staff post-KTP to ensure that new staff develop the skills required to use/sell the MICP product commercially (e.g.WP3.3/5.3)
8. Manage projects teams for MICP project delivery
9. Present MICP opportunities to potential clients and develop a future client-base for this exciting new technology
10. Plan, manage and monitor project schedules and milestones

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)

	Essential/ Desirable	Assessment Method
Bachelors degree in a relevant engineering discipline or other relevant discipline and 4-6 years of industry experience or a PhD	Essential	Application/CV
Click here to enter text or delete table row.	Choose	Select/type.
Click here to enter text or delete table row.	Choose	Select/type.
Click here to enter text or delete table row.	Choose	Select/type.

Experience

Experience in geotechnical engineering design, groundwater flow and transport modelling, or hydraulic modelling/design	Essential	Application/CV
A sound knowledge of hydraulics and geotechnical engineering	Essential	Application/CV
Interested in running multidisciplinary engineering projects and have the capability to manage and lead a project team	Essential	Application/CV

Great Minds. Innovative Solutions.

The University of Strathclyde is a charitable body, registered in Scotland, number SC015263



University of
Strathclyde
Glasgow



Royal Charter
since 1964
Useful Learning
since 1796



Academically Advanced Socially Progressive

Great minds. Innovative Solutions.



Some experience of professional reporting	Essential	Application/CV
Some experience of presenting projects to clients or engineering companies	Essential	Application/CV
Some basic knowledge of chemistry e.g. Nat 5, GCSE or a relevant undergraduate class	Desirable	Application/CV
Some knowledge of microbiology would be advantageous but is not essential	Essential	Application/CV
Click here to enter text or delete table row.	Desirable	Select/type.
Job Related Skills and Achievements		
Click here to enter text or delete table row.	Choose	Select/type.
Click here to enter text or delete table row.	Choose	Select/type.
Click here to enter text or delete table row.	Choose	Select/type.
Click here to enter text or delete table row.	Choose	Select/type.
Click here to enter text or delete table row.	Choose	Select/type.
Personal Attributes		
Ability to develop, grow and manage a team	Essential	Interview
Self-starting and inquisitive	Essential	Interview
An engaging communicator	Essential	Interview
Capability to work closely with senior colleagues within BAM Ritchies	Essential	Interview
Click here to enter text or delete table row.	Choose	Select/type.
Other Relevant Factors		
Hold a full and clean UK driving licence	Essential	Interview
Click here to enter text or delete table row.	Choose	Select/type.
Click here to enter text or delete table row.	Choose	Select/type.
Click here to enter text or delete table row.	Choose	Select/type.
Click here to enter text or delete table row.	Choose	Select/type.

Great Minds. Innovative Solutions.

The University of Strathclyde is a charitable body, registered in Scotland, number SC015263



University of
Strathclyde
Glasgow



Royal Charter
since 1964
Useful Learning
since 1796



Academically Advanced Socially Progressive

Great minds. Innovative Solutions.

Application Procedure

(HR use only)

Applicants should visit Strathclyde's vacancies portal and complete an online application form including the name of **two/three** referees who will be contacted without further permission, unless you indicate 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 **[delete as appropriate] as well as a Research Plan outlining your research strategy for the next 5 years**. Applicants should also complete the Equal Opportunities Monitoring Form.

University of Strathclyde encourages the recruitment of disabled and neurodivergent candidates. If you need any reasonable adjustments during the recruitment process, please let us know. You are welcome to submit a paper application or a CV instead of the online application form by contacting us at humanresources@strath.ac.uk.

Interviews

Formal interviews for this post will be held on **Enter an interview date**.

The University is a Disability Confident Employer and operates a guaranteed interview scheme for disabled candidates who meet all the essential criteria for the post that they are applying for.

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 Professor Rebecca Lunn, Head of Department (rebecca.lunn@strath.ac.uk / 0141 548 2826)

Conditions of employment relating to the KTP Associate staff category can be found at: [Conditions of Employment](#).

Rewards and Benefits

Our comprehensive benefits package, including generous annual leave, family-friendly benefits, flexible work options, and a commitment to continuous learning, reflects our appreciation for the valuable contributions of our colleagues.

We understand that each staff member has unique priorities and lifestyles, so our diverse benefits ensure there is something for everyone, details of which can be found on our [Rewards and Benefits webpage](#).

Great Minds. Innovative Solutions.

The University of Strathclyde is a charitable body, registered in Scotland, number SC015263



University of
Strathclyde
Glasgow



Royal Charter
since 1964
Useful Learning
since 1796



Academically Advanced Socially Progressive

Great minds. Innovative Solutions.

- **Financial Rewards:** We provide attractive financial packages, including competitive salaries, relocation support for employees and a generous pension scheme, with university contributions of 14.5% for USS and 22.1% for LGPS.
- **Work-Life Balance:** We are dedicated to enhancing healthy work-life balance for our employees. We offer generous annual leave, an additional annual leave purchase option, flexible and agile work arrangements.
 - Annual Leave: Generous entitlement of 27 days (Grade 5 and below) or 31 days (Grade 6 and above), in addition to 11 public holidays and University closure days.
 - Additional annual leave purchase: Option to request purchase of 2 weeks' additional annual leave per year.
 - Flexible and agile working: The University provides flexible work arrangements. You can request arrangements that fit you and your role, such as hybrid, part-time, compressed hours, term-time, adjusted shifts, staggered hours. These requests can be made from the first day of your employment.
- **Family Friendly Benefits:** We offer a variety of enhanced family-friendly benefits to support our employees in balancing work and family responsibilities. These include Maternity Leave, Paternity/Maternity Support, Adoption Leave, Shared Parental Leave, Parental Leave, Carers Leave and support, Family Friendly Research & Scholarship Leave, and access to our on-campus nursery.
- **Career Development:** Our commitment to personal development is reflected in initiatives such as professional courses, subsidised educational programs, coaching and mentoring, leadership development, secondment opportunities, and access to our library.
- **Health & Wellbeing:** We place high importance on the safety, wellbeing, and health of all our staff and offer discounted Strathclyde Sport membership, an Employee Assistance Programme (EAP), Occupational Health Service, and Cycle to Work scheme.
- **Recognition Awards:** At Strathclyde, we place a strong emphasis on acknowledging and rewarding our staff's commitment and exceptional contributions. This is demonstrated through our Long-Service Awards and our Values-based Strathclyde Medals.

Probation

Where applicable, the successful applicant will be required to serve a 6 month probationary period.

Pension

The successful applicant will be eligible to join Universities' Superannuation Scheme Further information regarding this scheme is available from [Payroll and Pensions](#).

Great Minds. Innovative Solutions.

The University of Strathclyde is a charitable body, registered in Scotland, number SC015263



University of
Strathclyde
Glasgow



Royal Charter
since 1964
Useful Learning
since 1796



Academically Advanced Socially Progressive

Great minds. Innovative Solutions.



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+, disabled candidates and candidates from lower socio-economic groups and care-experienced backgrounds.

The University currently holds an Athena Swan **Silver 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.

In delivering **our People Strategy**, we will contribute, act, and make decisions guided by these values.

- **People-oriented:** committed to our staff and students, providing opportunities, and investing in their development.
- **Bold:** confident and challenging in what we do, and supportive of embracing appropriate and managed risk in our decision-making.
- **Innovative:** focused on discovering and applying knowledge with impact and encouraging creative thinking and new ideas.
- **Collaborative:** working together, with our colleagues and external partners, with integrity and in an open, respectful way.
- **Ambitious:** for our institution, staff and students as well as supporting the ambitions of our partners.

Great Minds. Innovative Solutions.

The University of Strathclyde is a charitable body, registered in Scotland, number SC015263



University of
Strathclyde
Glasgow



Royal Charter
since 1964
Useful Learning
since 1796



Academically Advanced Socially Progressive

Great minds. Innovative Solutions.



Great Minds. Innovative Solutions.

The University of Strathclyde is a charitable body, registered in Scotland, number SC015263