

Candidate Information

Position:	Civil/Structural Engineer/Materials Scientist
School/Department:	KTP and Business Networks
Reference:	19/107345
Closing Date:	Sunday 28 April 2019
Salary:	£24,000 to £34,000 per annum. One of the key KTP benefits for graduates is access to a £10,950 training and travel budget over the 36 month project.
Anticipated Interview Date:	Thursday 9 May 2019
Duration:	36 months

JOB PURPOSE:

Develop a new range of concrete paving stones using surface treatments and additives to improve performance and appearance and use these materials to reduce urban heat islands.

Established in 1960, Acheson & Glover has spent over 50 years designing and manufacturing a wide range of construction and landscaping products and solutions for both the commercial and the residential sectors. They are committed to the high standards that have been set throughout their company's history – standards of 'best in industry' for customer service, innovation and premium products. The postholder will work in Acheson & Glover (Dungannon) in collaboration with Queen's University Belfast for 36 months to develop a new range of concrete paving stones using surface treatments and additives to improve performance and appearance and use these materials to reduce urban heat islands.

The key integrated project phases are:

MAJOR DUTIES:

1. Review of concrete formulations and identification of materials.
2. Physical and chemical characterisation of materials.
3. Optimisation of mixes for innovative smart cooling concrete paving.
4. Scale up of the optimised mixes at the company batching plant.
5. Performance evaluation of the optimised mixes and assessment against cost and carbon footprint.
6. Set up new R & D laboratory in Acheson & Glover.
7. Embedding of new processes and UKAS Accreditation.
8. Staff training and development of Standard Operating Procedures (SOPs).

Planning and Organising:

1. Manage and coordinate the items of work as laid out in the project plan (individual work plan will be provided by Supervisors).
2. Plan day-to-day activity within the framework of the agreed work plan.
3. Contribute to the planning and management of the project, approximately 3-6 months in advance.
4. Ensure that all training and development activity is scheduled to ensure that progress on the work plan objectives is not interrupted or delayed.

Resource Management Responsibilities:

1. Plan and manage day-to-day resources to ensure the project runs to time and on budget.
2. Coordinate and obtain approval for planned expenditure/allocation of resources with the Management Committee and Steering Group.
3. Carry out supervision of placement students or other staff members as required.
4. Monitor travel and development budgets and produce a Personal Development Plan which will ensure best use of financial resources.

5. Attend training modules (mandatory and additional job-specific training). This may be local, national and international.
6. Perform any other additional duties as agreed by the Local Management Committee and Steering Groups to contribute to the development of the company, the university and the Associate.

Internal and External Relationships:

1. Present regular progress reports to members of the Steering and Management Groups and to external audiences.
2. Liaise with company staff on a daily basis. Contribute to training of staff in the company and university as required.
3. Build relationships with both company and university staff to ensure effective working practices are established.
4. Attend and contribute to any appropriate meetings, both in the company and the university as required.
5. Establish contacts with additional groups and organisations (other KTP Associates, other university departments, other industrial contacts, and Innovate UK) as required to develop knowledge and understanding and form relationships for future collaboration.
6. Act as an Ambassador for the Knowledge Transfer Partnership Scheme.

ESSENTIAL CRITERIA:

1. At least a 2.1 Honours Degree (or equivalent) in Civil or Structural Engineering or a closely related discipline. Applicants who hold a 2.2 in the above, will also be considered if they have either a relevant higher degree or have completed one years' relevant work experience.
2. Completion of a relevant research project, module or student placement. Applicants should indicate how their experience could be applied to this post.
3. 3 months' relevant work experience.
4. Understanding of concrete technology.*
5. Understanding of cement chemistry.*
6. Experience in Structural Testing.*
7. Experience in Mechanical Performance of Materials.*
*may be demonstrated through the completion of a module, student project or placement.
8. Good oral written and presentation skills.
9. High level of IT skills.
10. Ability to think logically, create solutions and make informed decisions.
11. A high level of numeracy and the ability to interpret data.
12. Drive and ambition to succeed.
13. Ability to work effectively as a member of a group.
14. Well organised, attention to detail and ability to meet tight deadlines.
15. Interested in the wider commercial aspects of working in a business.
16. An interest in staying with the Company. (Associates are normally invited to apply for permanent positions).
17. Ability to take part in Associate management courses (requiring two one-week periods in England).
18. Willing/able to travel throughout the UK and Ireland and abroad, as necessary.

DESIRABLE CRITERIA:

1. Hold (or be about to obtain) a higher degree in a relevant discipline.
2. 1 year relevant work experience.
3. Experience in Technical Report writing, SOPs.
4. Experience in microstructure analysis techniques (e.g. SEM, XRD, TG).
5. Experience in Environmental Exposure Analysis/Weathering tests.
6. Ability to deliver training and follow-up support to operatives.
7. Ability to influence people effectively.
8. Tenacious and committed to achieving goals.

ADDITIONAL INFORMATION:

Knowledge Transfer Partnerships is a UK programme that enables businesses to work with universities to gain access to specialist knowledge and expertise and apply it within their organisation. Each Partnership recruits a Graduate to work in the company, implementing and embedding the latest research techniques. Guidance is provided by the academic and company supervisors to ensure that the objectives of the project are met. Although the scheme is aimed at recent graduates, any suitably qualified individual may apply.

Each KTP is a fully salaried job that lasts between twelve and thirty six months, providing the graduate with an opportunity to fast track a career in industry. Each KTP Associate has a training and development budget and a travel budget. This funding provides opportunities for job-specific training, attending and presenting at conferences, visiting trade shows, customers and suppliers etc. Two, one week residential management training modules are also provided as part of the package.

This partnership received financial support from the Knowledge Transfer Partnerships (KTP) programme . KTP aims to help businesses to improve their competitiveness and productivity through the better use of knowledge, technology and skills that reside within the UK knowledge base. This successful Knowledge Transfer Partnership project, funded by UK Research and Innovation through Innovate UK, is part of the government's Industrial Strategy.

As members of University staff, KTP Associates can join the University pension scheme, gain access to University resources such as the Library and sports facilities.

More details are available at www.ktpjobsni.com.