

Candidate Information

Position:	Mechanical/Manufacturing Engineer - KTP Associate - Four Dee (NI)
School/Department:	KTP and Business Networks
Reference:	19/107534
Closing Date:	Thursday 27 June 2019
Salary:	£25,000 to £30,000 per annum. One of the key KTP benefits for graduates is access to a £10,000 training and travel budget over the 30 month project.
Anticipated Interview Date:	Tuesday 9 July 2019
Duration:	30 months

JOB PURPOSE:

Develop the use of automation and robotics in the manufacturing process including robotic welding and scanning technologies to overcome product variation and low volume.

MAJOR DUTIES:

1. We wish to recruit a highly skilled and motivated graduate to work in Four Dee (NI) Limited in collaboration with Queen's University Belfast for 30 months. Through this Knowledge Transfer Partnership, the company seeks to develop the use of automation and robotics in the manufacturing process including robotic welding and scanning technologies to overcome product variation and low volume. The postholder will be based in Four Dee (NI), Magherafelt.

Under the guidance of the company and academic supervisors the KTP Associate will deliver the following key project stages:

1. Review and capture current manufacturing process and layout
2. Assess potential for automation within the manufacturing process with a specific emphasis on the possible use of robotic welding.
3. Investigate self-learning technologies as part of the automated/robotic cell.
4. Initiate an automated digital design & analysis of a robotic welding process suitable for an agreed range of assemblies.
5. Undertake training on a robotic cell focussing on the interaction with the robot, controls, on-line programming, problem solving etc.
6. Jig and fixture design.
7. Installation and initial trials on the automated/robotic manufacturing cell – delivering a cell with self-learning capability.
8. Embedding of new developments.

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. Hold, or be about to obtain in July 2019, at least a 2.1 Honours Degree or equivalent in Mechanical or Manufacturing Engineering or a closely related discipline. Applicants who hold, or are about to obtain in July 2019, a 2.2 Honours Degree in addition to either 1 years' relevant experience or a related higher degree will be considered.
2. 6 months' relevant work experience.
3. Excellent 3D CAD skills.*
4. Understand the concept of Design for Manufacture and Assembly. *
5. Knowledge of industrial robotics and automation principles. *
6. Understanding of metal fabrication and joining processes.*
* may be demonstrated through completion of a module, student project or placement
7. Good oral written and presentation skills.
8. High level of IT skills.
9. Ability to think logically, create solutions and make informed decisions.
10. A high level of numeracy and the ability to interpret data.
11. Ability to work effectively as a member of a group.
12. Well organised, attention to detail and ability to meet tight deadlines.
13. An interest in staying with the Company. (Associates are normally invited to apply for permanent positions).
14. Ability to take part in Associate management courses (requiring two one-week periods in England).
15. 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 area.
2. 1 year's relevant work experience.
3. Knowledge of manufacturing analysis and/or digital manufacturing tools.
4. Experience of industrial robotics and automation principles.
5. Experience of Robotic Welding.
6. Knowledge of scanning technologies.
7. Experience of robot programming.
8. Ability to deliver training and follow-up support to operatives.
9. Ability to influence people effectively.
10. 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.