

Candidate Information

Position: Digital Manufacturing Engineer - KTP Associate - Glen Dimplex
School/Department: KTP and Business Networks
Reference: 21/109257
Closing Date: Thursday 28 October 2021
Salary: £24,000 - £32,000 per annum. One of the key KTP benefits for graduates is access to a £6,000 training and travel budget over the 24 month project.
Anticipated Interview Date: Thursday 11 November 2021
Duration: 24 months

Job Purpose:

To develop and implement technical and innovative solutions to drive efficiency, environmental and economic competitiveness across the business, through embracing High Value Manufacturing technologies to support the company's Smart Factory vision.

Major Duties:

Queen's University Belfast in partnership with Glen Dimplex have an exciting employment opportunity for a graduate to work on a digital manufacturing project through the Knowledge Transfer Partnership (KTP) Programme. This is a unique opportunity for a dynamic and motivated Mechanical/Manufacturing Engineering graduate to work in Glen Dimplex (based in Portadown, Northern Ireland) on this 24 month collaborative project with the Northern Ireland Technology Centre (NITC) at Queen's.

Glen Dimplex Heating & Ventilation is the world's largest manufacturer of commercial and residential HVAC solutions, committed to investment and innovation in the creation of a sustainable future for all. They design, develop and manufacture innovative heating and ventilation solutions for global markets and are driven by innovation and excellence. The aim of this collaborative project is to develop and implement technical and innovative solutions to drive efficiency, environmental and economic competitiveness across the business, through embracing High Value Manufacturing technologies to support the company's Smart Factory vision.

With support and guidance from the company and university supervisors the KTP Associate will lead on the delivery of the following key project stages:

1. Review and capture the current manufacturing process and layout for electric heater production line.
2. Develop initial digital model for the existing electric heater manufacturing line.
3. Identify improvement ideas for electric heater production line including researching suitable High Value Manufacturing & Industrial Digital technologies.
4. Develop a series of digital models that show the potential improved future state ideas for the electric heater production line.
5. Develop a costing/business case analysis tool that will be completed for each of the relevant improvement options to support management decision making.
6. Creating a technology roadmap for the manufacturing process improvement requirements and plans within the company.

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:

Please note that the Shortlisting Panel cannot make assumptions on your experience or qualifications; it is the responsibility of the applicant to evidence their suitability for the role. As such your Application Form, CV and/or Cover Letter must clearly demonstrate how your Qualifications and Experience meet the Essential Criteria and, where possible, Desirable Criteria as listed in the Candidate Information Booklet.

1. Hold at least a 2.1 Honours degree (or equivalent) in Mechanical or Manufacturing Engineering, Mechatronics or a closely related discipline
2. 6 months' relevant work experience in a manufacturing environment (which can include a student placement or industry research project)
3. Excellent demonstrable 3D CAD skills.
4. Completion of a university project in the area of manufacturing.
5. *Demonstrable knowledge of digital manufacturing tools/simulation software and their application.
6. *Demonstrable knowledge of High Value Manufacturing tools and techniques and/or Industrial Digital Technologies
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. Ability to work on your own initiative
14. An interest in staying with the Company. (Associates are normally invited to apply for permanent positions).
15. Ability to take part in Associate management courses (requiring two one-week periods in England).
16. Willing/able to travel throughout the UK and Ireland and abroad, as necessary.

*which may be demonstrated through completion of a module, student project or placement.

***Desirable Criteria**

1. Hold, or be about to obtain, a higher degree in a relevant discipline
2. At least 1 years relevant work experience.
3. Experience in manufacturing analysis and/or digital manufacturing.
4. Knowledge and/or experience of ERP systems.
5. Knowledge of computer coding – ideally related to the manufacturing domain / Industry 4.0 (e.g. Python).
6. Experience in using digital manufacturing software tools.
7. Knowledge of control equipment and integration.
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 help forward thinking companies innovate for growth. They do this by connecting organisations who have an innovative idea with the knowledge and expertise to help deliver it. This dynamic three-way partnership formed between an inspired graduate, the university and the company means that the graduate, known as the KTP Associate, provides the link between an expert academic team and a dynamic organisation. This bridge gives the graduate unique and exceptional access to both world class academic support and experts from within the business.
- A KTP provides a fulfilling employment opportunity where you can apply your knowledge to turn a key strategic innovative idea into reality and although the KTP Programme is aimed at recent graduates, any suitable qualified graduate may apply. Each KTP Associate role is a fully salaried job and last between 12 months and three years with approximately 70% of Associates offered employment by the host business at the end of the project. Projects can be in any sector and for businesses of all sizes. Each KTP Associate will have a travel / training budget to provide funding for job-specific training and further professional development. Two, one week residential management training modules are also included as part of the package.
- For all KTP projects, the graduate is employed by the University but contracted to work in the business, under the business' basic terms and conditions including holidays and hours of work. As a member of University staff, KTP Associates can join the University pension scheme, gain access to University resources including the Library and sports facilities.
- KTP aims to help businesses improve their competitiveness and productivity through the better use of knowledge, technology and skills held within the UK knowledge base. KTPs are funded by UKRI through Innovate UK with the support of co-funders, including the Scottish Funding Council, Welsh Government, Invest Northern Ireland, Defra and BEIS. Innovate UK manages the KTP Programme and facilitates its delivery through a range of partners including the Knowledge Transfer Network (KTN), Knowledge Bases (in this case, Queen's University Belfast) and Businesses.
- More details about are available at www.ktp-uk.org