

Candidate Information

Position:	R&D Engineer (Polymer Composites) - KTP Associate - Collins Aerospace
School/Department:	KTP and Business Networks
Reference:	20/108503
Closing Date:	Wednesday 6 January 2021
Salary:	£26,000 - £34,000 per annum. One of the key KTP benefits for graduates is access to a £8,500 training and travel budget over the 24 month project.
Anticipated Interview Date:	Tuesday 26 January 2021 & Thursday 28 January 2021
Duration:	24 months.

Job Purpose:

Develop material and manufacturing processes for fabrication of new composite structures as part of aircraft seating.

Main Activities and Responsibilities:

Through the KTP programme we wish to recruit a skilled postgraduate to work in Collins Aerospace (Kilkeel, Co.Down, Northern Ireland) to lead and deliver a collaborative KTP project with School of Mechanical and Aerospace Engineering at Queen's over 24 months.

B/E Aerospace now known as Collins Aerospace is part of Raytheon Technologies Inc. and is a leading global manufacturer of aircraft passenger cabin interior products for the aircraft markets. We serve all major airlines, aircraft manufacturers and leasing companies through direct global sales and customer support organisations and have leading worldwide market shares for all our major product lines. Our site in Kilkeel, Co Down, Northern Ireland is the largest seat manufacturing operation in the Group and we manufacture seats for Emirates, American, Lufthansa, Qatar and BA, from basic economy to first class cabins. We wish to recruit a highly skilled postgraduate to develop material and manufacturing processes for fabrication of new composite structures as part of aircraft seating.

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

1. Developing an understanding of the Composite Injection Overmoulding process and the prevailing mechanisms.
2. Design, Manufacture, testing and characterisation of the test specimens.
3. Manufacture, testing and characterisation of the seat component demonstrator.
4. Outcome assessment, results analysis, dissemination and implementation.

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 and 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.
3. Monitor travel and development budgets and produce a Personal Development Plan which will ensure best use of financial resources.
4. Attend training modules (mandatory and additional job-specific training). This may be local, national and international.

5. 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.

Additional Information:

1. 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.
2. 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.
3. 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.
4. 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

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 a Masters Degree (or higher) in Materials, Aerospace, Mechanical Engineering or a closely related discipline.
2. 6 months relevant work experience (which can be gained through a work placement).
3. Knowledge of the injection moulding process (which can be gained through completion of a module, student project or work placement).
4. Demonstrable proficiency in the use of 3D-CAD packages.
5. Demonstrable experience of mechanical testing and analysis of materials.
6. Good oral, written, and presentation skills.
7. High level of IT skills.
8. Ability to think logically, create solutions and make informed decisions.
9. A high level of numeracy and the ability to interpret data.
10. Ability to work effectively as a member of a group.
11. Well organised, attention to detail and ability to meet tight deadlines.
12. An interest in staying with the Company. (Associates are normally invited to apply for permanent positions).
13. Ability to take part in Associate management courses (requiring two one-week periods in England).
14. Willing/able to travel throughout the UK and Ireland and abroad, as necessary.

Desirable Criteria:

1. Hold, or be about to obtain, a PhD in a highly relevant area.
2. More than 1 years relevant work experience.
3. Demonstrable practical experience of the injection moulding process and tool design.
4. Demonstrable knowledge of polymers and composite materials and their applications.
5. Demonstrable experience of CFD and Finite Element Analysis.
6. Demonstrable experience of mechanical testing and analysis of polymer composites.
7. Ability to deliver training and follow-up support to operatives.
8. Ability to influence people effectively.
9. Tenacious and committed to achieving goals.