

Candidate Information

Position:	Project Engineer
School/Department:	Mechanical & Manufacturing Engineering
Reference:	21/108785
Closing Date:	Monday 17 May 2021
Salary:	£33,797 per annum.
Anticipated Interview Date:	Wednesday 2 June 2021
Duration:	This is a fixed term contract position available until 28 February 2023 in the first instance.

Background:

The Northern Ireland Advanced Composites & Engineering Centre (NIACE) is a university-hosted, industry facing centre that has become a technology hub for the research and development of advanced materials technologies, particularly in the area of advanced composites technologies, materials characterisation and nanotechnology. The Centre has established itself as a creative environment to encourage and assist Northern Ireland's manufacturing sector to innovate and develop technical capabilities, to compete more successfully in national and global markets. By developing relevant technological solutions for a breadth of manufacturing applications the Centre has enabled companies to work at a scale and in collaborations not feasible before its creation. With financial assistance from Invest NI and collaboration between QUB, UU and the National Composites Centre (NCC), NIACE is now entering a new, exciting phase of growth and development as part of the Advanced Manufacturing Innovation Centre (AMIC-NIACE). In particular, it is establishing itself as a fully-functioning R&D centre with staff and technical capability to define, support and deliver industry focused R&D programmes in partnership with clients or on their behalf.

The new, enhanced Centre will develop a pipeline of R&D projects that will provide a sustainable, future revenue stream and grow our industrial engagement and presence. As part of the Centre's evolution we are looking to recruit a number of key personnel. Funding has been secured for two years (in the first instance) that is the interim period until AMIC is formally created. The expectation is for AMIC-NIACE to transition into an AMIC entity after this interim period with appropriate funding arrangements.

Job Purpose:

As the first Engineer within the new enhanced Centre, you will hold an exciting, crucial and high profile role. You will provide technical input to proposals and project definitions, fully utilising your specialist knowledge and experience of methods and processes. Ultimately, you will generate innovative R&D which has a direct economic and technical benefit to companies within NI and UK. Whilst the Centre's predominant focus is the area of composite and thermoplastic materials, other areas include advanced engineering and manufacturing related themes. Reporting directly to the General Manager, you will work collaboratively with academia, RTO's and industry to deliver industry focused collaborative R&D programmes in partnership with clients or on their behalf.

Main Duties:

1. Undertake high quality research, development and knowledge transfer in key areas of technology capability development.
2. Contribute to the planning, development, delivery, maintenance and trialling of Centre projects.
3. Formally evaluate and document the effectiveness of new or enhanced methods arising from research.
4. Produce high quality technical reports and demonstrations to assist in generating funding opportunities to support further programme activity.
5. Develop and implement selected technology applications.
6. Highlight and improve capabilities and processes that need to be adapted to better support the NI/UK composites manufacturing sector.
7. Build your industry relationships, engage with and support industrial partners, to facilitate the transfer of AMIC-NIACE capabilities into commercial R&D teams.
8. Support the NI composites community by providing swift, tailored, technical solutions and detailed consultancy support and advice within a manufacturing environment.
9. Support the wider AMIC operation through close collaboration and engagement with Factory of the Future, NITC and PPRC.

10. Participate constructively in multi-disciplinary research activities, including staff training and development.
11. Help develop the international reputation of the Centre through presentations, attendance at trade-shows and visiting major companies and research & technology centres worldwide.
12. Carry out routine administrative tasks to ensure project goals are completed on time, to a high quality and within budget.
13. Undertake any other duties that may reasonably be requested by management.

Planning and Organising:

1. Plan, schedule and monitor your own work activities to meet given objectives and processes, ensuring time and quality targets are met.
2. Plan for the use of research resources and laboratories where appropriate.
3. Liaise with other team members to achieve co-ordinated progress against objectives and KPI's.

Resource Management Responsibilities:

1. Ensure research and development resources (internal and external) are used in an effective and efficient manner.
2. Provide guidance as required to staff and project partners who may be assisting with the research project.

Internal and External Relationships:

1. Participate in external engagements with commercial partners, suppliers, government bodies and academic institutions.
2. Provide support and work closely with the General Manager.
3. Coordinate and liaise with other members of the project team over work progress.

Essential Criteria:

1. Honours Degree, or equivalent, in related engineering discipline with at least three years' recent relevant experience. OR minimum HND in related engineering discipline with at least five years' relevant experience
2. A minimum of 3 years recent relevant experience.
3. Competent in the application of composite manufacturing technology, with clear experience of using supporting computer aided manufacturing solutions.
4. Strong evidence of complex problem solving skills with a proven ability to develop innovative solutions.
5. Experience of using research tools and techniques resulting in high quality project and technical reports.
6. Evidence of leading and delivering on multifaceted projects within deadlines and budget, displaying strong resource management ability.
7. In-depth understanding of fundamental engineering concepts.
8. Evidence of communicating complex technical information.
9. Good written and verbal communication skills.
10. Evidence of communicating complex technical information.
11. Demonstrable intellectual ability.
12. Willingness to work on and develop new technical innovative manufacturing techniques.

Desirable Criteria:

1. Hold or be about to hold a relevant higher degree.
2. Experience of collaborative research and effective working in a team.
3. Experience of working with international OEMs and SMEs.
4. Experience in using commercial manufacturing/simulation software tools.
5. Experience working for a composite / polymer manufacturing company.
6. Experience in upscaling productions.
7. Evidence of strong resource management ability.
8. Ability to build contacts and participate in internal and external networks.
9. Experience of collaborative research and effective working in a team.