

Candidate Information

Position: Project Engineer-3D Weaving
School/Department: AMIC
Reference: 26/113682
Closing Date: Monday 2 November 2026
Salary: £36,366 to £41,727 per annum
Duration: 3 years

JOB PURPOSE:

We are seeking a highly motivated Engineer to work in AMIC's Sustainable Polymer and Composite team to help and contribute to projects being delivered as part of AMIC's advanced manufacturing activities.

You will apply your specialist knowledge and experience of 3D weaving processes, textile preform design and process validation to generate innovative research outputs which have a direct economic and technical benefit to companies and sectors. Due to the hands on nature of this role, it is based primarily onsite.

You will work collaboratively with the sustainable polymer and composite team, wider AMIC team, industry partners, technology providers, national technology centres and academia to deliver key projects focused on advanced technical textiles for composite structures.

AMIC is a £100M investment through the Belfast Region City Deal - a collaborative, innovative powerhouse of advanced manufacturing set to elevate our region globally. We are supporting economic growth and prosperity for Northern Ireland by creating high quality jobs and increasing inward investment through high value manufacturing innovation clusters.

MAJOR DUTIES:

1. Plan and organise own project work to achieve technical objectives ensuring delivery to time, quality and budget.
2. Participate constructively in multi-disciplinary research projects to ensure timely delivery of project objectives.
3. Work collaboratively with AMIC technical support to further develop knowledge in the operation and optimisation of 3D weaving equipment, including programming, setup, maintenance and troubleshooting of textile looms and associated systems.
4. Perform the design and manufacture of novel 3D woven textile preform designs through weaving trials, case studies and direct client project delivery.
5. Integrate textile design, weaving processes and consideration of composite manufacturing requirements to develop optimised solutions for industrial partners.
6. Participate in the development and implementation of digital technologies within textile design and delivery of 3D woven composite structures to improve cost and quality of woven preforms and manufactured components.
7. Produce high-quality technical reports, technical drawings and demonstrations to assist in generating funding opportunities to support further research activity.
8. Support business development through engagement with industrial partners and contribution to proposals.
9. Ensure all equipment is used safely and in accordance with standard operating procedures and Health and Safety guidance, including supervision of equipment operation when required.
10. Undertake any other duties that may reasonably be requested by management.

ESSENTIAL CRITERIA:

1. Honours degree or equivalent in a relevant engineering discipline, science, or a related discipline or minimum HND in a related engineering discipline with extensive recent and relevant experience.

2. Demonstrable experience in 3D weaving processes and technical textile engineering, including the development of woven preforms and their integration into composite products.
3. Evidence of process development and improving woven preform designs, weaving methods or textile manufacturing technologies to meet performance, quality, cost, and delivery requirements.
4. Experience of using relevant software packages for weave design and loom operation.
5. Experience of working with engineering drawings and working to close tolerances.
6. Evidence of relevant equipment proficiency, including setup, operation, maintenance, testing, and essential repair of textile weaving systems.
7. Knowledge and application of safety systems, risk management, and COSHH in textile and composite manufacturing environments.
8. Ability to work independently and as part of a team to deliver practical outcomes within project timescales.
9. Evidence of complex problem-solving skills.
10. Excellent written and verbal communication skills, including the ability to produce high-quality technical reports, technical drawings and convey complex technical information clearly to a range of stakeholders.

DESIRABLE CRITERIA:

1. Postgraduate qualification in a relevant discipline.
2. Understanding of design for manufacture of composite components.
3. Experience in contributing to the development of technical packages for textile manufacturing processes, including equipment specifications, process FMEAs and HSE documentation.
4. Experience with manufacturing automation technologies and digital textile manufacturing systems.
5. Understanding of technology readiness levels (TRL) (or similar processes such as MRL) and driving processes and projects to maturity.
6. Participation in collaborative research projects.
7. Willingness to visit collaborative partners and to attend meetings and conferences nationally and potentially internationally as requested.