# Candidate Information

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| **Position:** | Technical Lead - Tooling |
| **School/Department:** | AMIC |
| **Reference:** | 26/113329 |
| **Closing Date:** | Monday 18 May 2026 |
| **Salary:** | £51,016 - £62,695 per annum |
| **Anticipated Interview Date:** | Tuesday 2 June 2026 |
| **Duration:** | 3 years |

**JOB PURPOSE:**

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.

We are driving industrial transformation, paving the way for future technologies and competing globally with a more sustainable focus.

Our existing team of highly capable and experienced staff has core capabilities in digitalising manufacturing, smart design, sustainable polymers & composites and nanotechnologies & photonics. We're excited to be expanding the team throughout 2026.

We are seeking a team-player who is passionate about innovative technology to play a major role in the leadership, management and expansion of applied research, innovation and knowledge transfer in Tooling.

For this post "Tooling" refers to the Assembly & Fixture tooling, Tooling for advanced composite and polymer component processing, Additive Tooling technology and may include cutting tool developments.

You will lead and develop a team of engineers, scientists and technicians in the strategic direction and delivery of multiple concurrent Tooling projects across AMIC. Tooling projects will cover managing diverse range of tool manufacturing processes and validation methodologies.

You will work in collaboration with different AMIC technology areas, technology providers, national technology centres, academia and industry to deliver key projects, develop regional and international links, and secure partnerships and funding.

You will support senior managers with a proactive approach in the identification, technical specification and delivery of new and novel materials & technology capabilities and strategies that will have a direct technical, economic and reputational benefit to AMIC, industry and Northern Ireland.

**MAJOR DUTIES:**

1. To initiate, undertake, manage and supervise research and development in tooling design and tooling validation of the highest international quality, to sustainably grow AMIC as a world-class centre that successfully combines leading edge research with knowledge transfer, commercialisation and economic impact.
2. Support development and implementation of technology roadmaps and strategies for tooling manufacturing, as a basis for identifying and implementing new and novel technology capabilities within AMIC.
3. Manage and provide leadership for multi-disciplinary tooling research projects and teams, including staff training and development, delivery of technical skills training, monitoring performance and reporting.

4. Work collaboratively within AMIC and with industry to plan and deliver key projects, lead the strategic development and optimisation of manufacturing processing capabilities across multiple technologies tooling design capabilities across multiple technologies (e.g. Assembly and fixture tooling across multiple sectors, hard and soft tooling for processes such as RTM, Autoclave Cure and press moulding for composites and injection moulding and rotational moulding for wider polymers, modular tooling systems, rapid tooling, additive manufactured tooling, etc) to meet industry and research requirements, ensuring quality of delivery at all times.
5. Drive innovation in tooling design through integration of digital technologies, tooling validation methodologies, and correlation between tooling design, manufacturing process requirements and component performance.
6. To work closely with AMIC staff, the wider sustainable polymer and composite team, technology providers, national centres, Queen's academic staff, with industry and government agencies in all aspects relating to composite technology transfer.
7. Create new cross-disciplinary groupings and projects of strategic importance to AMIC and Queen's University Belfast in composite manufacturing and validation.
8. To initiate, develop and manage R&D links with fabrication and assembly industry partners nationally and internationally (e.g. Aerospace, Materials handling, Advanced machinery, Space)
9. To initiate, develop and manage R&D links with composite and polymer industry partners nationally and internationally.
10. Assist in winning funding from industry and government sources (nationally and internationally) to grow Tooling manufacturing research in line with AMIC's long-term strategic plans (supported by Head of Group, CTO and Business Development function).
11. Play a leading role in developing the international reputation of tooling research at Queen's through presentations, attendance at trade shows and through visiting major companies world-wide as required.
12. Work collaboratively with AMIC Advanced machining team and external suppliers to ensure designs are manufactured to specification, maintaining effective communication and technical support throughout implementation.
13. Any other duties commensurate with the role that may reasonably be requested by management.

**ESSENTIAL CRITERIA:**

1. Honours Degree, or equivalent, in related engineering discipline or substantial relevant experience working in a similar role.
2. Substantial relevant experience managing multifaceted industrial-focused tooling research & development projects on time and within budget.
3. Expert proficiency in CAD/CAM software (e.g. CATIA, NX, SolidWorks, Mastercam) and tooling simulation software for composites with demonstrated ability to integrate digital technologies into tooling design workflows.
4. Evidence of in-depth expertise in tooling design and validation across multiple manufacturing processes (e.g. (e.g. Assembly and fixture tooling across multiple sectors, hard and soft tooling for processes such as RTM, Autoclave Cure and press moulding for composites and injection moulding and rotational moulding for wider polymers, modular tooling systems, rapid tooling, additive manufactured tooling, etc), including correlation between tooling design, process requirements and component performance.
5. Demonstrable experience leading tooling design development, optimisation and implementation across multiple concurrent projects, with evidence of effective technical outcomes through major project delivery, reports, publications, patents or product designs.
6. Strong experience of collaborative working, team leadership and project leadership, including management of cross-functional engineering teams to deliver complex composite manufacturing outcomes.
7. Experience of building networks of industrial and research stakeholders across the UK, Ireland and internationally, with proven ability to secure substantial business partnerships or funding to support composite research activities.
8. Applied knowledge of safety, risk, and regulatory compliance in tooling design and manufacturing environments.
9. Proven ability to work strategically with tooling vendors and cross-functional teams to develop capabilities that meet quality, performance, and delivery standards.
10. Ability to communicate complex technical information to range of audiences through effective written reports and presentations, adjusting approach to meet audience needs.
11. Strong problem-solving skills in a complex industrial environment, with evidence of developing innovative solutions to challenging composite manufacturing problems.
12. Flexibility to work outside of standard working times and undertake national or international travel may be required to meet the responsibilities of the post and needs of stakeholders.

**DESIRABLE CRITERIA:**

1. Postgraduate and/or professional qualification in a relevant discipline.
2. Experience of working with international OEMs and SMEs in tooling manufacturing sectors.

3. Experience of project management and/or project management qualification (e.g. PRINCE2, APM or equivalent).
4. Understanding of technology readiness levels (TRL) or manufacturing readiness levels (MRL) and leading processes and projects to maturity.
5. Experienced in design for manufacture of composite components, mould design and tooling development strategies.
6. Experience with process or structural simulation software (e.g. Moldex, DIGIMAT, ABAQUS, ANSYS) and integration into composite design workflows.
7. Experience with tooling validation methods including thermal analysis, flow simulation and structural validation techniques.
8. Experience with advanced manufacturing technologies for tooling production including CNC machining, additive manufacturing and automated finishing processes.
9. Familiarity with working on development of sustainable tooling materials and circular economy principles in tooling design.
10. Experience working to aerospace or automotive tooling standards and quality frameworks.
11. Track record in leading and developing collaborative research projects with funding bodies such as UKRI, ATI, APC, EU Horizon.