

Candidate Information

Position: Senior Engineer CNC Machining
School/Department: AMIC
Reference: 25/112948
Closing Date: Monday 3 November 2025
Salary: £41,519 - £49,536 per annum
Anticipated Interview Date: Tuesday 11 November 2025
Duration: 3 years

AMIC:

AMIC - a £100M investment through the Belfast Region City Deal - is 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.

When you join our team, you will have access to the latest advanced industrial technologies and have the opportunity to grow and develop as an engineer and technology leader. Our mission is to provide you with the environment to innovate and create impact.

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 2025 and beyond.

JOB PURPOSE AND IMPACT:

We are seeking engineers who want to innovate and apply their knowledge to the challenges of industry and society to support applied industrial research, development and knowledge transfer, and in particular CNC manufacturing process development, within AMIC's advanced manufacturing activities. You will apply your specialist knowledge and experience of methods, processes and process validation to generate innovative research outputs which have a direct economic and technical benefit to companies and sectors. You will work collaboratively with your team, industry, technology providers, national technology centres and academia to deliver key projects focused on CNC machining in advanced manufacturing. To assist in national and international business development activities as required to secure funding from industry and government sources, nationally and internationally.

MAJOR DUTIES:

1. Undertake high quality industrial research, development and knowledge transfer in the area of advanced manufacturing, and in particular CNC machining process development.
2. Development and implementation of Multi-axis CNC Technology including Milling, Mill/Turn & PKM Machining.
3. Development and implementation of CNC related CAM Technologies.
4. Development and implementation of CNC machining strategies, work-holding solutions, cutting tool trials and other supporting technologies.
5. Engage with industrial partners to facilitate the transfer of AMIC capabilities into commercial production.
6. Contribute to the planning, development, delivery, maintenance and trialling of AMIC projects, ensuring that all equipment is used in compliance with Health and Safety guidance.
7. Participate constructively in multi-disciplinary research activities, including staff training and development.
8. Help develop the international reputation of AMIC and QUB through presentations, attendance at tradeshow and visiting major companies and research & technology centres worldwide.

9. Produce high quality technical reports and demonstrations to assist in generating funding opportunities to support further programme activity.
10. Carry out routine administrative tasks to ensure project goals are completed on time and within budget.
11. Undertake any other duties that may reasonably be requested by management.

ESSENTIAL CRITERIA:

1. Honours Degree, or equivalent, in related engineering discipline with at least three years' recent relevant industrial experience OR minimum HNC in related engineering discipline with at least five years' recent relevant industrial experience.
2. Demonstrable evidence of competence in the application of CNC manufacturing equipment for machining and drilling, with clear experience of using CNC related CAD and CAM technologies.
3. Extensive breadth and depth of specialist knowledge in the discipline and of research and development methods and techniques to work within established research programmes, with proven competence and technical expertise in:
 - Theory and implementation of Machining R&D including at least two of; process control, machining strategies, work-holding solutions, process modelling and simulation;
 - Experience using relevant software packages for NC programming; and
 - Knowledge of safety systems and their use within a CNC Machining environment.
4. Demonstrable evidence of working within multifaceted environments delivering to deadlines and within budget.
5. Experience of using research/industrial tools and techniques resulting in high quality projects and technical reports.
6. Evidence of complex problem-solving skills obtained with a proven ability to develop innovative solutions.
7. Excellent written and verbal communication skills, including ability to communicate complex technical information.

DESIRABLE CRITERIA:

1. Experience of working with international OEMs and SMEs.
2. Hold or be about to hold a relevant higher degree or Ph.D.
3. Experience of CNC Machining Simulation software tools e.g. Vericut or NC Simul.
4. Knowledge of Modal Analysis/Tap Testing.
5. Experience of using Force Sensors and analysis of resultant data.
6. Demonstrable experience and knowledge of machining dynamics in milling processes.
7. Experience in using either Mill/Turn or PKM technology.