



Candidate Information

Position:	Senior Engineer - Digital Manufacturing (AR/VR)
School/Department:	AMIC
Reference:	24/111770
Closing Date:	Sunday 14 April 2024
Salary:	£37,841 - £49,317 per annum
Duration:	3 years in the first instance

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 launch team of over 40 staff has core capabilities in digitalising manufacturing, smart design, sustainable polymers & composites and nanotechnologies & photonics. We're excited to be expanding the team throughout 2024.

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 augmented reality (AR) and virtual reality (VR) within AMIC's advanced manufacturing activities.

You will apply your specialist knowledge and experience of methods and processes, 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 advanced manufacturing.

MAJOR DUTIES:

1. Apply technical knowledge and experience in support of the development of innovative and emerging industry-focused solutions.
2. Undertake high quality industrial research, development and knowledge transfer in the area of AR/VR including:
 - Development and implementation of Augmented and Virtual reality technologies.
 - Development and implementation of AR/VR methods and content.
 - Development and implementation of smart factory technologies.
 - Monitor, develop and implement best practices in the application of AR/VR within advanced manufacturing, including software, hardware and delivery.
3. Formally evaluate the effectiveness of new or enhanced methods arising from research.
4. Engage with industrial partners to facilitate the transfer of AMIC capabilities into commercial R&D teams.
5. Contribute to the planning, development, delivery, maintenance and trailing of AMIC projects.
6. Participate constructively in multi-disciplinary research activities, including staff training and development.
7. Help develop the international reputation of AMIC and QUB through presentations, attendance at trade-shows and visiting major companies and research & technology centres worldwide.
8. Produce high quality technical reports and demonstrations to assist in generating funding opportunities to support further programme activity.

9. Carry out routine administrative tasks to ensure project goals are completed on time and within budget.
10. Undertake any other duties that may reasonably be requested by management.

ESSENTIAL CRITERIA (Education, Experience, Skills, Knowledge, etc.):

1. Honours degree, or equivalent, in related computing or engineering discipline with significant relevant experience in a manufacturing-related environment OR minimum HND in a related discipline with extensive recent and relevant industrial experience.
2. Experience developing software or content for advanced manufacturing processes or Games, VFX, Immersive Technologies.
3. Demonstrable evidence of competence in a high-level language such as C++, C#, and scripting languages such as LUA, JSON, Python etc. with direct experience with 3D application platforms, e.g. Unity3d/Unreal/Omniverse
4. 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.

ESSENTIAL CRITERIA (Personal Qualities):

6. Demonstrable evidence of complex problem-solving skills obtained / relevant for industrial manufacturing problems.
7. Excellent written and verbal communication skills, including ability to communicate complex technical information.
8. Ability to innovate and rapidly contribute to research projects.
9. Willingness to visit collaborative partners and to attend meetings and conferences nationally and internationally as requested.

DESIRABLE CRITERIA:

1. Postgraduate qualification in a relevant discipline.
2. Experience of collaborative research and effective working in a team.
3. Evidence of resource management.
4. Experience of working with international OEMs and SMEs.
5. Experience of use and impact of a range of technologies in Advanced Manufacturing.
6. Demonstrable experience with securing and creating value from industrially generated data for internal data driven decision making.