Candidate Information

Position:	Technical Lead - Material Characterisation
School/Department:	Sustainable Composites and Polymers
Reference:	24/112244
Closing Date:	Monday 28 October 2024
Salary:	£49,054 - £60,284 per annum
Anticipated Interview Date:	Friday 8 November 2024
Duration:	Fixed Term - Full Time, available for approximately 3 years

JOB PURPOSE:

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.

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

JOB PURPOSE AND IMPACT:

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 sustainable polymers & composites and materials characterisation.

You will lead and develop a team of engineers, scientists and technicians in the development of project-related activities across AMIC to undertake innovative research, analysis, and research-support activities in Materials Characterisation. This requires working in collaboration with different technology areas, technology providers, national technology centres, academia and industry to deliver key projects, developing regional and international links and securing 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 Materials Characterisation 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, as a basis for identifying and implementing new and novel technology capabilities within AMIC.
3. Manage and provide leadership for multi-disciplinary research projects and teams, including staff training and development, monitoring performance and reporting.
4. Work collaboratively within AMIC and with industry to plan and deliver key projects related to Materials characterisation and analysis, ensuring quality of delivery at all times.
5. To create and deliver applied skills content in Materials characterisation across a range of levels and formats.

6. To work closely with AMIC staff, technology providers, national centres, Queen's academic staff, with industry and government agencies in all aspects relating to technology transfer.
7. Create new cross-disciplinary groupings and projects of strategic importance to AMIC and Queen's University Belfast.
8. To initiate, develop and manage R&D links with industry nationally and internationally.
9. Assist in winning funding from industry and government sources (nationally and internationally) to grow manufacturing research in line with AMIC's long term strategic plans (supported by CTO and Business Development function).
10. Play a leading role in developing the international reputation of Materials characterisation research at Queen's through presentations, attendance at trade shows and through visiting major companies world-wide as required.
11. 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 initiating, executing and managing multifaceted industrial-focussed research & development projects within deadlines and budget, displaying strong and effective resource management abilities.
3. Strong evidence of technical excellence and understanding of fundamental engineering and materials science concepts as evidenced by major project outcomes, reports, publications, patents or product designs.
4. 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 Materials characterisation of polymers and composites to include structural property relationships, thermal, rheological and mechanical properties and surface characterisation.
5. Experience of collaborative working, team leadership and project leadership and delivery
6. Experience of building networks of industrial and research stakeholders across the UK and Ireland.
7. Experience assisting in securing substantial revenue or funding to support the activities of the research group.
8. Ability to communicate complex information to range of audiences through effective written reports and presentations, adjusting approach to meet audience needs.
9. Strong problem-solving skills in a complex industrial environment.
10. Some working outside of standard working times and national or international travel may be required to meet the responsibilities of the post and needs of stakeholders. It should be possible to plan and schedule for this activity 90% of the time.

DESIRABLE CRITERIA:

1. Postgraduate and/or professional qualification in a relevant discipline.
2. Proven proficiency in materials analysis techniques, operation and maintenance of equipment.
3. Experience of working with international OEMs and SMEs.
4. Understanding theory of materials science, polymers and composites.
5. Experience in lab analysis and materials characterisation.
6. Familiarity with working on development of sustainable polymer supply chains.
7. Experience with software packages for characterisation, populating feeds and process simulation.
8. Experience in materials data analysis and interpretation.