Candidate Information

Position:	RiSC+ Research Fellow - Supply Chain Modelling
School/Department:	Queen's Business School
Reference:	25/112362
Closing Date:	Tuesday 28 January 2025
Salary:	£39,922 - £43,605 per annum
Anticipated Interview Date:	Wednesday 12 February 2025
Duration:	3 years

JOB PURPOSE:

To be a highly productive, ambitious and collaborative member of the RISC+ team assisting in the development of research proposals and the planning and delivery of the research activity specifically in Modelling UK Supply Chains as complex systems for resilience.

The post is a critical role, and as such, successful applicants will have responsibilities in independent research, research planning and reporting and for collaboration with project partners.

The post is part of the ReImagining Supply Chains Network Plus (RiSC+ Network) project, whose main aim is to model and reimagine supply chains across the UK in food, critical minerals and fashion. The RiSC+ Network will offer evidence that exposes vulnerabilities, remedies current risks and demonstrates future potential, ultimately helping to empower the UK to move towards more resilient and secure supply chains.

MAJOR DUTIES:

1. Undertake research under supervision into Modelling UK food / fashion / critical minerals supply chains as complex systems for improved resilience.
2. Design, develop and refine mathematical modelling and simulation methods for the representation of supply chains, considering:
   a. Factors directly related to the enterprise' internal supply chain.
   b. Factors external to the enterprise.
   c. Identification / quantification of uncertainty / risks.
   d. The development of frameworks for supply chain construction and management.
3. Deliver / Enable / Identify:
   a. New understanding of the sensitivities of the food / fashion / critical minerals sectors to external market variations.
   b. New business approaches to increase the resilience of the UK supply chains.
   c. Better informed decisions relative to supply chain management.
   d. Development of strategic partnerships across supply chain tiers.
4. Carry out analyses, critical evaluations, and interpretations of design and simulation data and literature using methodologies and other techniques appropriate for supply chain-related research.
5. Produce high quality research outputs consistent with project aims and commensurate with career stage. This will include collaborating and co-authoring with PI and project team (as appropriate) on outputs.
6. In consultation with the project team, promote research milestones and outputs at national and international conferences.
7. Assist grant holder in the preparation of funding proposals and applications to external bodies.
8. Carry out occasional educational supervision, demonstrating or lecturing duties within the post holder's area of expertise and under the direct guidance of a member of academic staff.
9. Undertake supplementary duties relevant to the success of the project including administrative duties and additional training and development activities as required.

ESSENTIAL CRITERIA:

1. Hold at least a 2:1 honours degree in Computer Science, Operations Research, Supply Chain Management, Industrial Engineering or closely related discipline.
2. Have, or be about to obtain, a relevant PhD in Computer Science, Operations Research, Supply Chain Management, Industrial Engineering or closely related discipline.(Candidates about to receive their PhD should provide proof that their viva is scheduled within two month)
3. Recent relevant research experience to include
   - Demonstrable experience in supply chain planning /modelling, supply chain optimisation, operations research, or big data analytics.
   - Demonstrable experience in programming/scripting, beyond that taught in undergraduate engineering courses.
   - A proven track record of using relevant techniques to carry out analyses, critical evaluations, and interpretations of data as relevant to the research project.
   - Working effectively as part of a research team in the development and promotion of the research theme.
   - Proven track record working in / with industry.
4. Ability to contribute to broader management and administrative processes.
5. A sufficient breadth of knowledge of supply chain modelling and simulation methods.
6. Ability to work in a team.
7. Willingness to undertake additional training in research methods and other related skills as required.
8. Practical problem solving skills, independence of thought and initiative.
9. Ability to communicate complex information effectively in oral and written format.
10. Ability to build relationships to develop internal and external networks.
11. Ability to assess and organise resources.
12. Excellent interpersonal skills.
13. Willing to spend time on placement at partner facilities / travel to same on a regular and frequent basis if needed.

DESIRABLE CRITERIA:

1. Demonstrable experience in:
   - Mathematical modelling and simulation
   - Artificial Intelligence and Edge Computing
   - Industrial engagement and technology transfer
   - Academic and industrial reporting / presentation skills
   - Experimental Testing and Analysis
   - A track record of high quality publications appropriate to stage in career
   - Relevant experience in food/fashion/critical minerals.

ADDITIONAL INFORMATION:

Informal Enquiries to Hangfei Guo, h.guo@qub.ac.uk