University of Nottingham
UK | CHINA | MALAYSIA

Role profile

Job title	Research Associate/Fellow (Title will be 'Research Associate' where an appointment is made before PhD is completed)	Job family and level	Research Level 4 (Appointment will be Level 4 Career training grade where an appointment is made before PhD has been completed)
School/ Department	Sustainable Process Technologies Research Group, Department of Mechanical, Materials and Manufacturing Engineering	Location	Faculty of Engineering, University Park

Purpose of role

The purposes of this role are to: 1) develop process simulation models; and 2) develop techno-economic and life cycle assessment methodologies to comprehensively quantify the technical, financial, and environmental implications of novel processes and process technologies. The role holder will liaise with project partners to acquire data relevant to develop models of hypothetical integrated production processes. Outcomes of this work are expected to be of broad significance to the chemical process, techno-economic, and life cycle assessment communities, and as such the role holder will be expected to prepare their work for publication in appropriately targeted journals. The role holder will have career development opportunities and will have the opportunity to use their initiative and creativity to identify areas for research, develop research methods and extend their research portfolio.

	Main responsibilities (Primary accountabilities and responsibilities expected to fulfil the role)	**% time per year**
1	To plan and conduct research using recognised approaches, methodologies and techniques within the research area. To analyse and illuminate data, interpret reports, and bring new insights to research area. To write up research work for publication and/or contribute to the dissemination at national/international conferences, resulting in successful research outputs. To plan and manage own research activity and resolve problems, if required, in meeting own/team research objectives and deadlines in collaboration with others	85%
2	To develop research objectives and proposals for own and/or collaborative research area. To identify opportunities and assist in writing bids for research grant applications. Prepare proposals and applications to both external and/or internal bodies for funding purposes.	10%

	To build relationships with both internal and external contacts in order to exchange information, to form relationships for future collaborations and identify potential sources of funds and/or opportunities for collaboration To co-ordinate the operational aspect of research networks, for example, arranging meetings and contribute to collaborative decision making with colleagues in area of research. To collaborate with academic colleagues on areas of shared interest for example, course development, collaborative or joint research projects	
3	To provide support, guidance and supervision to other staff, where appropriate in own area of expertise. To supervise undergraduate and/or postgraduate students projects, as appropriate. To participate in the assessment of student knowledge and co-supervise projects at Masters level. To utilise and contribute to organising research resources and facilities, laboratories and workshops as appropriate	5%

Person specification

	Essential	Desirable
Skills	• Excellent oral and written communication skills, including the ability to communicate with clarity on complex information. • High analytical ability to analyse and illuminate data, interprets reports, and bring new insights. • Ability to creatively apply relevant research approaches, models, techniques and methods. • Ability to build relationships and collaborate with others, both internally and externally.	• Planning general research programme and direction. • Making individual/team decisions about design and development of process, techno-economic, and life cycle assessment models • To assist in preparing applications for new research funding. • Advice on consumable and small scale purchasing.
Knowledge and experience	• Practical experience in developing techno-economic and life cycle assessment methods, and their application to process engineering.	• Previous success in gaining support for externally funded research projects. • Experience of developing new approaches, models, techniques or methods in the area of techno-economics and/or life cycle assessment. • Collaborative research applications. • Direction of students/ collaborators research. • Investigation and decisions about new software for the group. • Publication decisions, papers, conference abstracts etc. • Proposals for grant application. • Strategy for long term research programme.
Qualifications, certification and training (relevant to role)	• PhD or equivalent (or about to obtain) in a relevant subject area or the equivalent in professional qualifications and experience in research area.	• PhD in a relevant subject area, with a background in chemical or mechanical engineering

Expectations and behaviours

The University has developed a clear set of core expectations and behaviours that our people should be demonstrating in their work, and as ambassadors of the University's strategy, vision and values. The following are essential to the role:

Valuing people	Is always equitable and fair and works with integrity. Proactively looks for ways to develop the team and is comfortable providing clarity by explaining the rationale behind decisions.
Taking ownership	Is highly self-aware, looking for ways to improve, both taking on board and offering constructive feedback. Inspires others to take accountability for their own areas.
Forward thinking	Driven to question the status quo and explore new ideas, supporting the team to "lead the way" in terms of know-how and learning.
Professional pride	Sets the bar high with quality systems and control measures in place. Demands high standards of others identifying and addressing any gaps to enhance the overall performance.
Always inclusive	Ensures accessibility to the wider community, actively encouraging inclusion and seeking to involve others. Ensures others always consider the wider context when sharing information making full use of networks and connections.

Key relationships with others