

National Manufacturing Institute Scotland:

Senior Research & Development Engineer

Faculty	Faculty of Engineering (www.strath.ac.uk/engineering/)	Reference No	229977
Staff Category	Knowledge Exchange	Grade:	8
Salary Range:	£40,792- £50,132	Contract Type:	Open Contract
FTE:	1	Closing Date	Sunday, 21 July 2019

Job Advert

Who we are

The National Manufacturing Institute Scotland (NMIS) is a bold and ambitious industry-centred project to create an international centre of advanced manufacturing expertise and excellence where industry, academia and public-sector support agencies work together to transform skills, productivity and innovation, making Scotland and the UK a global leader in advanced manufacturing.

NMIS will be an industry-led international centre of manufacturing expertise where research, industry and the public sector work together to transform skills, productivity and innovation to attract investment and make Scotland a global leader in advanced manufacturing.

NMIS will be delivered in partnership through Scottish Enterprise. Partners are the Scottish Government, Scottish Enterprise, Highlands and Islands Enterprise, Skills Development Scotland, Scottish Funding Council, Renfrewshire Council and the University of Strathclyde. NMIS is a truly collaborative project, with partners including the Scottish government, Scottish Enterprise, Highlands and Islands Enterprise, Skills Development Scotland, the Scottish Funding Council, Renfrewshire Council and the UK government through the High Value Manufacturing Catapult. The University of Strathclyde is the host University for NMIS, which will link to the wider academic communities in Scotland through the Scottish Research Partnership in Engineering and across the UK High Value Manufacturing Catapult network.

NMIS will encompass a dedicated facility that will house the Manufacturing Skills Academy (MSA), Digital Factory 2050 and the Innovation Collaboratory. Along with this dedicated new facility, existing and developing research centres will also be part of the broader NMIS Group including the Advanced Forming Research Centre (AFRC) and the Lightweight Manufacturing Centre (LMC). The posts advertised here will be based in one of these centres.

For more information, visit the National Manufacturing Institute Scotland (NMIS) Website:

<https://www.strath.ac.uk/workwithus/nationalmanufacturinginstitutescotland/> or email NMIS-recruitment@strath.ac.uk

The Opportunity

We are looking to appoint up to 40 innovative and enthusiastic engineers to be part of NMIS who are interested in manufacturing the future, working with a range of innovative industrial partners and academic experts, new and emerging technologies and challenging manufacturing in Scotland. We would love to hear from you, if you have an established track record in providing engineering solutions in an industrial context, a good first degree and significant experience or PhD qualification, and significant experience and evidence of leadership and a track record of securing significant funding as well as expertise in one or more of the technical areas below as well as:

- Materials and Lightweighting
- Production systems, manufacturing systems, operations and supply chain management.
- Digital Manufacturing (including robotics and automation)
- Manufacturing technologies

- Measurement and sensing
- Design for manufacturing and new product introduction

You'll be rewarded with:

- The opportunity to work with a variety of innovative industry partners and leading academics.
- The opportunity to work with cutting edge and bold technologies.
- Excellent employee benefits and opportunities for career development.

Job Description

Brief Outline of Job:

The Senior Research and Development Engineer will lead on NMIS research programmes and the development and operation of NMIS manufacturing capability, including research and development with partners and customers. In particular, the post holder will be expected to lead larger and more complex industrial research programmes with a manufacturing engineering focus, and deliver solutions to industrial partners. The post holder will be a subject expert in their field, provide expert advice to internal and external stakeholders, apply for and secure significant funding and identify new approaches, techniques and technologies as well as identifying any IP.

Main Activities/Responsibilities:

1.	Lead individual and/or collaborative engineering research or knowledge exchange activities to determine appropriate research methods and contribute to the development of new research methods for industrial applications.
2.	Identifying new applications/approaches/techniques or technologies and ensuring that any IP generated is recognised and managed appropriately.
3.	Provide expert guidance to research teams in area of expertise to ensure resource efficient solutions are developed in response to research challenges.
4.	Enhancing the NMIS manufacturing capability by anticipating future technical requirements and research needs, and providing direction in key technical area(s).
5.	Responsible for developing relationships in support of relevant area of expertise, including member companies, to maintain positive working relationships and partnerships and the development of collaborative project opportunities.
6.	Respond to industrial enquiries for assistance in support of challenges and preparation of statements of work, quotations and funding applications.
7.	Lead project teams to deliver against specific requirements of industrial research programmes.
8.	Identify opportunities for strategic development of new projects by building contacts internally and externally, participating in networks for the exchange of information, form relationships with customers, suppliers and colleagues for future collaboration. Identify and initiate relevant funding substantial opportunities (commercial and CR&D) in the relevant technology area and develop consortia around funding opportunities.
9.	Write up reports, as lead author, for external organisations, and further write up findings for additional dissemination (e.g. professional publications or peer review journal publication) as appropriate.
10.	Assisting in the training and development of staff and external clients in manufacturing engineering methods and processes.
11.	Lead on collaborative decision making with colleagues on academic/engineering content in areas of research.
12.	Contributing to the overall NMIS growth by working as an integral part of the NMIS team effort, inputting to the research programme and capability development, as necessary, to meet strategic objectives.

Person Specification

Educational and/or Professional Qualifications

(E=Essential, i.e. a candidate must meet all essential criteria to be considered for selection, D=Desirable)

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| E1 | Good first degree (minimum class 2:1) in a relevant engineering discipline, e.g. mechanical engineering, materials or manufacturing, or equivalent relevant work experience. |
| E2 | Significant experience or PhD in a relevant engineering discipline |
| D1 | Chartered Engineer/Scientist, Member of professional body in an appropriate discipline. |

Experience	
E3	Sufficient breadth or depth of knowledge in a relevant area to NMIS, to be able contribute to research and development programmes and activities.
E4	Significant experience of addressing a range of industrial and commercial challenges within an academic or industrial enterprise.
E5	Significant experience in conducting research and development projects, working directly and independently with clients, and preparing new and high value research and development proposals and working with and leading the wider delivery team.
E6	Experience taking a leading role and taking technical ownership of specific areas to research independently and manage the work of teams.
E7	Experience of manufacturing processes in an academic or industrial context
E8	Demonstrable track record in developing high quality proposals and playing a leading role in attracting funding for project initiatives (internally/externally).
E9	Sufficient knowledge and skills to be able to establish and maintain a network of relevant contacts, and ensure credibility within external partnerships.
Job Related Skills and Achievements	
E10	Significant professional experience of problem solving and addressing manufacturing process challenges within an academic or industrial enterprise.
E11	Ability to plan and organise own workload effectively with general supervision from senior colleagues.
E12	Ability to plan and organise programmes in an academic or industrial setting, and to pull together teams of academic professional staff and others as appropriate, to ensure project delivery for the client.
E13	Experience in taking a leading role in project planning and delivery.
D2	Experience of research and development related activities.
D3	Experience of multi/inter-disciplinary knowledge exchange and research
Personal Attributes	
E14	Excellent written and verbal communication skills, with an ability to interact with a range of stakeholders in both industry and academia.
E15	Ability to influence stakeholders, internally and externally, at varying levels and ability to convey compelling arguments with complex technical information.
E16	An ability to disseminate results and to contribute to research and commercial proposals.
E17	An ability to work as part of a team, through participation in collaborative projects, and developing evidence of leadership.
E18	Ability to develop new areas and manage associated ambiguity as new research themes emerge
Other Relevant Factors	
E19	An ability to listen, engage and persuade, and to present complex information in an accessible way to a range of audiences

Application Procedure

To apply, [click here](#) to visit Strathclyde's vacancies portal and provide:

- A fully completed application form;
- A detailed CV; and
- A cover letter detailing how your experience matches the person specification.
- As part of the application form, you'll also be asked to select a technical area from the list which best suits your expertise.

For more information, or to contact a Strathclyde colleague who would love to talk to you about this opportunity, visit the [NMIS website](#) or email NMIS-recruitment@strath.ac.uk.

Other Information

Equality and Diversity

We value diversity and welcome applications from all sections of the community.

The University currently holds a Bronze Athena SWAN award, recognising our commitment to advancing women's careers in science, technology, engineering, maths and medicine (STEMM) employment in academia.

University Values

The University's Values capture what we're all about: who we are, what we believe in and what we stand for. [Our Values](#) have been derived from how we act and how we expect to be treated as part of Strathclyde.

