Digital Process Manufacturing Engineer

Centre	National Manufacturing Institute Scotland (NMIS) (https://www.nmis.scot/)		
Faculty	Faculty of Engineering (www.strath.ac.uk/engineering/)		
Staff Category	Knowledge Exchange	Reference No	526942
Reports To	Senior Digital Process Manufacturing Engineer	Grade:	7
Salary Range:	£36024 - £44263	Contract Type:	Open Contract
FTE:	1 (35 hours/week)	Closing Date	23/06/2024
Holidays	31 days + 11 statutory days Option to purchase additional holidays		
Pensions	Contributory pension scheme available to all staff including generous employer contribution.		
Training	Professional Development with Organisational and Staff Development Unit (OSDU) plus external training if required		
Family Friendly Benefits	Generous parental leave provision and options for flexible working		
Health and Wellbeing	University Sport centre, Occupational Health service, access to health and wellbeing events, cycle to work scheme, Employee Assistance Programme, agile working and established carers support network and carer friendly policies		

Job Advert

DPMC is seeking to appoint an enthusiastic Digital Process Manufacturing Engineer, to support the delivery of high value industry focused research and knowledge exchange programmes, the adoption of digital technologies in the processing sector.

The Digital Process Manufacturing engineer will support the Senior Digital Process Manufacturing Engineer in building a world-leading community of digital technology developers and implementers and process industry experts in Strathclyde. The post holder will be expected to work between DPMC and its industrial partners and there will be a strong emphasis on knowledge exchange and process improvement.

To achieve the above the Digital Process Manufacturing Engineer will require research and/or industrial experience in at least two of the following technical areas:

- Industrial design and manufacturing environment including the various kinds of manufacturing equipment and technologies common across industry
- Good understanding of process engineering design including gated design reviews to diligently de-risk system designs.
- A broad knowledge of digital technology and process industry activities to mature the technology readiness of system designs and implementation of translational research into industry.
- Knowledge of digital tools including process design, sensors, automation, PLC/SCADA, MES, ERP, business intelligence.
- Good understanding of how digital technologies can be used in the processing sector to drive efficiencies.

The post holder will require the knowledge and skills normally associated with industrial experience or a first degree and PhD. The post holder will have the ability to work autonomously, with planning and prioritisation of work coming from the Senior Digital Process Manufacturing Engineer. The post holder will need experience of project planning and delivery, as well as excellent communication and interpersonal skills, with an ability to interact with a range of stakeholders from industry and academia.

The role will require travel between DPMC and NMIS HQ in Renfrewshire depending on projects and wider NMIS workload.

The University of Strathclyde in Glasgow (Times Higher Education Awards University of the Year 2019 and Scottish University of the Year 2020) possesses a large and internationally leading Engineering Faculty with a proud history of securing major funding for projects from government and other funding agencies and in operating successful joint ventures and partnerships with industrial organisations.

NMIS is partnering with the Centre for Process Innovation and North Ayrshire Council to develop the Digital Process Manufacturing Centre (DPMC) at i3 in North Ayrshire, Scotland. The Centre demonstrate, develop and deliver digital technology to support the UK's process manufacturing sectors' digital challenges.

DPMC will offer practical demonstrations of Industry 4.0 technology to stimulate, encourage and support industry to adopt new and innovative practices in the application of digital strategies to their manufacturing operations by offering hands-on experience. The demonstrations will include a range of opportunities for industry to gain access to examples of control systems, manufacturing execution systems, operational technologies, Augmented Reality, paperless systems, training, performance management, data visualisation techniques, etc. This experience, available in a controlled environment, aims to improve levels of confidence and demonstrates how digital can improve management decision-making, driving business performance and competitiveness. The physical facility, which will include a networking / training / meeting space, will serve as a focal point and networking hub for companies in the area.

The centre will focus key process sub-sectors including:

- Pharmaceuticals
- Oil & Gas
- Chemicals and Chemical Products
- Agrichemicals
- Food & Drink
- Fast Moving Commercial Goods
- Water (collection, treatment, supply)

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

Job Description

Brief Outline of Job:

With guidance from the Senior Digital Process Manufacturing Engineer, the Digital Process Manufacturing Engineer will support delivery of the centre's credible research direction through technology road-mapping and knowledge exchange projects. This will be delivered predominantly by working closely with DPMC staff, industrial partners and colleagues across the wider NMIS Group and University, and through strategic alliances with other institutions.

The post holder will support successful delivery of a range of direct and CR&D funded projects, to pursue and establish high quality knowledge exchange programmes, including securing research funding and contracts. They will support research programmes to ensure delivery of associated objectives and engage as appropriate in relevant research activities; and to carry out administrative tasks assigned by the Senior Digital Process Manufacturing Engineer.

Duties will include: technology road-mapping and direction setting, capability development, technical consultancy, including acting as a point of contact for customer enquiries and developing/costing of work proposals; and project delivery.

Main Activities/Responsibilities:

1.	Support the research and development of new and innovative digital process manufacturing activities; applying knowledge of digital technologies and the processing sector during the design and development of process manufacturing lines; liaising with DPMC industrial partners to implement DPMC strategies.

2.	Work on individual and/or collaborative engineering research or knowledge exchange activities for different industrial applications and contribute to the development of new research areas relating to industrial and commercial applications.
3.	Identify new approaches/techniques or technologies and ensure that any IP generated is recognised and managed appropriately.
4.	Ensure robust and impactful digital technology solutions are developed in response to process manufacturing challenges.
5.	Enhance digital process manufacturing capability by staying informed of future technical requirements and research needs and how these impact the direction of state-of-the-art approaches.
6.	Maintaining positive working relationships with DPMC and NMIS member companies/partnerships and developing collaborative project opportunities.
7.	Respond to industrial enquiries for assistance in support of challenges and preparation of statements of work, quotations and funding applications.
8.	Deliver against specific requirements of research and knowledge exchange programmes.
9.	Plan and manage workload, with guidance from the Senior Digital Process Manufacturing Engineer including coordinating work with other engineers to ensure delivery of programmes.
10.	Identify opportunities for strategic development of new projects by building contacts internally and externally, participating in networks for the exchange of information, and by forming relationships with customers, suppliers and colleagues for future collaboration. Provide technical input to help identify and initiate funding opportunities (commercial and CR&D) in the relevant technology area.
11.	Write up reports, individually or in collaboration with colleagues, for external organisations, and further write up findings for additional dissemination (e.g. professional publications or peer review journal publication) as appropriate.
12.	Attend training and development for Continuous Professional Development.
13.	Support decision making amongst colleagues as part of collaborative activities particularly relating to own areas of expertise.
14.	Contribute to overall DPMC growth by working as an integral part of the DPMC 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)
E1 Good first degree (minimum class 2:1) in a relevant engineering discipline or equivalent industry experience
E2 PhD in relevant engineering discipline, or equivalent relevant work experience
D1 Incorporated / Chartered Engineer/Scientist, Member of professional body in an appropriate discipline
Experience
E3 Knowledge of process industry or digital technologies
E4 Knowledge or experience of different types of process manufacturing equipment and associated design and performance considerations
E5 Understanding of process planning and manufacturing activities for high integrity products and systems
E6 Experience of high integrity digital and/or process engineering in an academic or industrial context
E7 Experience in implementing process manufacturing activities including the use of appropriate industrial digital technologies
Job Related Skills and Achievements
E8 Experience of problem solving and addressing process manufacturing challenges
E9 Ability to plan and organise own workload effectively with general supervision from senior colleagues
E10 Ability to plan projects or programmes across a range of settings whether research or industrial.

D2 Experience of working with multi/inter-disciplinary teams
Personal Attributes
E11 Excellent written and verbal communication skills, with an ability to interact with a range of stakeholders in both industry and academia
E12 Ability to influence stakeholders, internally and externally, at varying levels and ability to convey compelling arguments with complex technical information
E13 Experience of contributing to research and commercial proposals
E14 An ability to work as part of a team, through participation in collaborative projects
Other Relevant Factors
E15 An ability to listen, engage and persuade, and to present complex information in an accessible way to a range of audiences

Application Procedure

Applicants are required to complete an application form including the name of three referees who will be contacted before interview without further permission, unless you indicate that you would prefer otherwise. Applicants should also submit a Curriculum Vitae and a covering letter detailing the knowledge, skills and experience you think make you the right candidate for the job. Applicants should also complete the Equal Opportunities Monitoring Form.

Other Information

Further information on the application process and working at Strathclyde can be found on our website (http://www.strath.ac.uk/hr/workforus).

Informal enquiries about the post can be directed to David Hernandez, Project Manager (david.hernandez@strath.ac.uk).

Conditions of Employment

Conditions of employment relating to Knowledge Exchange Staff can be found here: Conditions of Employment.

Rewards and Benefits

Our staff have access to a wide range of outstanding benefits that include financial rewards, family friendly and wellbeing benefits and career development opportunities, details of which can be found here.

Probation

Where applicable, the successful applicant will be required to serve a 9 month probationary period.

Pension

The successful applicant will be eligible to join the Universities' Superannuation Scheme. Further information regarding this scheme is available from Payroll and Pensions.

Relocation

Where applicable, the University offers a relocation package to support new employees who meet the eligibility criteria. The relocation package is offered as a contribution towards costs incurred, and is designed to be flexible, allowing staff to use the financial support available in the way that will be most helpful to them. Further details are outlined in the Relocation Policy.

Interviews

Formal interviews for this post will be held on a date to be confirmed.

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 gender equality in academia across all academic disciplines and professional and support functions.

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.


Athena
SWAN
Bronze Award

disability
confident
EMPLOYER

CARER POSITIVE
Employer in Scotland
EXEMPLARY

happy to
talk flexible
working

Healthy
Working
Lives
Gold Award

ARMED FORCES
COVENANT
PROUDLY
SUPPORTING
THOSE WHO
SERVE.