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University of Strathclyde Glasgow

Professor/Reader in Sustainable Design and Manufacturing

Department	Design, Manufacture and Engineering Management (www.strath.ac.uk/engineering/designmanufactureengineeringmanagement/)		
Faculty	Faculty of Engineering (www.strath.ac.uk/engineering/)		
Staff Category	Academic	Reference No	462645
Reports To	Head of Department, Prof Anja Maier	Grade:	Professorial
Salary Range:	Competitive	Contract Type:	Open Contract
FTE:	1 (35 hours/week)	Closing Date	Friday, 26 August 2022

Job Advert

We are the University of Strathclyde. Our vision is innovative and ground breaking, placing us amongst the world's leading international technological universities. We are dynamic and passionate about solving the challenges facing society and industry through our cutting-edge, multi-disciplinary research, education and knowledge-exchange with global partners.

The University is situated in the heart of Glasgow, with an international community including 22,000 students and more than 3,000 staff from 100 countries. Strathclyde is 'the place of useful learning' and is recognised internationally for its close working relationships with businesses and its partnerships with industry, government and industry. The University is focused on recruiting the best academic talent to enhance both research intensity and leadership in areas of strategic importance.

The Department of Design, Manufacturing and Engineering Management (DMEM) is an internationally leading department, *Delivering Total Engineering* for responsible and sustainable futures. We seek to appoint a Professor/Reader in Sustainable Design and Manufacturing. This post is envisaged to start as soon as possible and is part of a wider talent and thought leader recruitment strategy.

DMEM brings together expertise in creative- and engineering design, manufacturing and engineering operations management. Our research centres and groups focus on through-life product- and system development, with core research themes being creativity and innovation, materials exploration, sustainability and technology. We are proud of our substantial and well-established collaborations with academic and industrial partners throughout the world. With more than 150 staff including the technical specialist centres, more than 100 Postgraduate Research (PGR) students both PhD and EngD, and more than 650 students from over 30 nations, we are a vibrant, international community. Come join, collaborate, innovate, and lead.

Are you passionate about working on global challenge and societal transitions, including sustainability, health, food systems, manufacturing systems? And are you thriving on theory-driven and empirically-validated research excellence, learning and teaching with and for engineering leaders of the future? We'd love to hear from you with research interests especially in Net Zero and regeneration of sustainable design and manufacturing/production systems and the industrial ecology more widely. Come join us with your passion for tackling societal challenges and your disciplinary expertise esp. in sustainable futures. This may include but not limited to sustainable design approaches, sustainable manufacturing, re-manufacturing, technologies for low energy-consumptions, low greenhouse-gas-emission or low raw-material demanding manufacturing processes, circularity in design and manufacturing, circular economy, smart sustainable manufacturing and design, e.g., computing and data-driven process development, control, and optimisation; discovery of new materials; data-driven and industrial AI, AI-based design of devices, structures and systems that are energy-efficient, promote reuse and recycling of materials, reduce consumption, or otherwise mitigate climate change and environmental impact on the planet.

Sustainable design and manufacturing are central within DMEM with a focus on ensuring connectivity between the engineering and product design activity and the manufacturing processes that will ultimately be used to make the products and ultimately

be used to re-make and re-manufacture the products, impacting supply-chain configurations, and thereby waste and emissions. Given the global challenge of climate change and the significant impact of products and their manufacturing process on the environment there is an increasing focus on research, KE and degree and skills training within the field. The opportunities are anticipated to increase over the coming years aligned with the global transition to a net zero economy.

DMEM is currently well positioned in the sustainability area and has successfully built a portfolio of activity in two niche areas, remanufacturing and aircraft decommissioning/reuse. Currently, we host the Scottish Institute for Remanufacturing and are working with the Ayrshire Growth Deal to establish Aircraft Decommissioning capability at Prestwick. The proposed post would complement this activity and would focus on the development of sustainable design and manufacturing strategies and methods, including circularity. Furthermore, the postholder would work with design- and manufacturing teams within the National Manufacturing Institute Scotland (NMIS Group) to provide sustainable design and manufacturing expertise for collaborative research and industrial projects and related High Value Manufacturing Catapult activity. There will also be additional opportunities through Glasgow City Innovation District (GCID) and the Advanced Manufacturing Innovation District Scotland (AMIDS) and the regional deals all of which have a net zero focus.

Over recent years, Strathclyde in general and DMEM in particular has positioned itself well to deliver across these areas with collaborative teams across the University incorporating resources and expertise from Business, Humanities and Social Sciences, Science and Engineering faculties. This capability is exemplified through cross-department and cross-faculty initiatives such as the EPSRC Centre for Continuous Manufacturing and Crystallisation (CMAC), the Scottish Institute for Remanufacturing (SIR), and the Advanced Forming Research Centre (AFRC), with opportunities to significantly the National Manufacturing Institute Scotland (NMIS), Glasgow City Innovation District (GCID), the Advanced Manufacturing Innovation District Scotland (AMIDS), and wider strategic engagements such as with the Ayrshire Regional Deal and the Rosyth Innovation Park. The successful candidate is keen to build on this platform for further new initiatives and research excellence. Major opportunities also include links with Health & Care Futures / Medicines Manufacturing Innovation Centre, large infrastructure investments Scotland and the UK, public-public-private large partnerships for the Sustainable Development Goals (SDGs).

To be considered for the role you will have a good honours degree and PhD (or significant relevant experience) in a design and manufacturing related discipline. You will have research experience and interests consistent with the strategic direction of the Department, Faculty and University and you will have experience of research leadership, including support of senior researchers in a University or industrial environment and management of research teams/projects/programmes. You will support of early and mid-career academic staff within the research group, helping to ensure they reach their full potential. You will have extensive experience of delivering high quality teaching to undergraduate and postgraduate students including experience of developing and managing large teaching programmes and you will have experience of PhD/EngD research project supervision in Higher Education. You will have an outstanding/sustained track record of published research in high quality publications demonstrating standards of excellence, with an international reputation. You will have an outstanding/substantial track record of securing research funding through relevant successful collaborative research grant applications and you will have an established national/international reputation as an expert and leader within Sustainable Design for Manufacturing. You will be an excellent educator and mentor and will show leadership in identifying key research questions and attracting funding support. You will have excellent interpersonal and communication skills, strong people skills and an ability to operate as part of a team.

Appointments will be made at a level appropriate to a successful candidate's experience and career stage. In addition to the position described here, the Global Talent Programme makes clear the University's commitment to attracting world leading academics to Scotland. The University is also committed to developing the next generation of leaders, nurturing talented individuals through the early stages of their career and providing the opportunities for professional rewards and 'making a difference'.

Job Description

Brief Outline of Job:

Professor: As an acknowledged expert and leader: to direct an internationally acclaimed research programme; to oversee and deliver educational curricula and set appropriate academic standards; to lead the development of knowledge exchange activities; to mentor and support junior colleagues; to provide academic leadership and contribute at a strategic level to the work of the Department, Faculty and University. Professors are subject to the Charter and Statutes and Ordinances and Regulations of the University. As a Professor you will be responsible to Court of the University through the Principal for providing leadership in your academic area. This is in addition to the responsibility for tasks assigned by the Head of Department.

Reader: To lead a research programme of national/international excellence; to lead the design, development and delivery of a range of teaching programmes and undertake student assessment activities; to lead professional and knowledge exchange activities; and to carry out senior administrative tasks assigned by the Head of Department.

Main Activities/Responsibilities:

1.	Lead research of international excellence in sustainable design and manufacturing, including the management of significant resources and activities (at professorial level, the programme of research will be internationally acclaimed).
2.	Provide strategic research leadership in the area of sustainable design and manufacturing to develop the Department/Faculty/University reputation and academic standing in this discipline (at professorial level this will include identifying, developing and leading significant research directions and projects).
3.	Lead an internationally acclaimed programme of research and disseminating results through regular and sustained publications in high impact journals, books and conference proceedings.
4.	Lead and secure, as Principal Investigator or Co-Investigator, substantial research grant funding and attract income through knowledge exchange activities.
5.	Oversee the design and delivery of educational degree curricula and playing a lead role in the development of educational strategy and operational standards.
6.	Lead the development of knowledge exchange activities and promote public engagement by, for example, establishing research and/or educational links with industry and influencing public policy and the professions at national and international level.
7.	Engage in, and where appropriate set the agenda in, national and international academic debates and within professional institutes, learned/practitioner societies and governmental committees.
8.	Contribute, at a strategic level, to the work of the Department, Faculty and University, for example through participation in the Department/School senior management team and by playing a lead role on University committees.
9.	Engage in continuous professional development.

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 honours degree and PhD (or equivalent) in appropriate discipline/s.
D1	Membership of relevant Chartered/professional bodies (including the Higher Education Academy).

Experience

E2	Research interests consistent with the strategic direction of the Department/School/Faculty/University.
E3	An established international reputation as an expert and leader within specialist field.
E4	Ability to build an internationally leading research group and successfully manage and promote that group's research within an international arena.
E5	Extensive experience of delivering high quality teaching to undergraduate and postgraduate students and supervision of research students.
D2	Sustained track record of leading the development and delivery of large and varied educational programmes.

Job Related Skills and Achievements

E6	An outstanding and inspiring record of achievement in research and publication recognised internationally.
E7	Proven ability to attract substantial research funding over a sustained period.
E8	Track record of multi/inter-disciplinary research collaborations and developing external partnerships.
E9	An established track record of project, budget and staff management.
D3	Established links with industry, learned societies, government and/or relevant Chartered/professional bodies.

Personal Attributes

E10	Ability to think strategically and contribute at a senior level to the Department/School, Faculty and University.
E11	Excellent interpersonal and communication skills, with the 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 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 as well as a Research Plan outlining your research strategy for the next 5 years. 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 Professor Anja Maier, HoD, via email anja.maier@strath.ac.uk

Conditions of Employment

Conditions of employment relating to the Academic staff category can be found at: 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.

Basic Disclosure

This role requires the satisfactory outcome of a Basic Disclosure Scotland Check. The successful applicant will be asked to carry out a Basic Disclosure Scotland Check. Whether an outcome is satisfactory will be determined by the University.

Pre-employment health screening

An offer of appointment will be subject to a medical assessment by Occupational Health. An individual who accepts an offer of employment must complete a confidential medical questionnaire and forward it to the Occupational Health Nurse within 5 days of receipt. If further information is required the individual may be contacted by the OHN or a Medical Advisor and a personal appointment with the individual may be arranged. An unconditional contract of employment will not be issued until Human Resources receives confirmation that applicant is fit to undertake the duties of the post.

Probation

Where applicable, the successful applicant will be required to serve a 12 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 - TBC

Equality and Diversity

The University of Strathclyde is a socially progressive institution that strives to ensure equality of opportunity and celebrates the diversity of its student and staff community. Strathclyde is people-oriented and collaborative, offering a supportive and flexible working culture with a deep commitment to our equality, diversity and inclusion charters, initiatives, groups and networks.

We strongly encourage applications from Black, Asian and minority ethnicity, women, LGBT+, and disabled candidates and candidates from lower socio-economic groups and care-experienced backgrounds.

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.