Lecturer in Low Carbon Propulsion Systems
University of Manchester

Job Title	Lecturer in Low Carbon Propulsion Systems
Department	Department of Mechanical and Aerospace Engineering
Institution	University of Manchester Manchester, , United Kingdom
Date Posted	Nov. 27, 2024
Application Deadline	Dec. 12, 2024
Position Start Date	As soon as possible following completion of recruitment cycle
Job Categories	Lecturer/Instructor
Academic Field(s)	Transportation Engineering Sustainable Engineering Industrial & Systems Engineering Engineering Physics Engineering Mechanics Energy Technology Aerospace/Aeronautical/Astronautics
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Job Description

THE UNIVERSITY OF MANCHESTER
FACULTY OF SCIENCE & ENGINEERING
SCHOOL OF ENGINEERING
DEPARTMENT OF MECHANICAL, AEROSPACE AND CIVIL ENGINEERING
LECTURER IN LOW CARBON PROPULSION SYSTEMS
VACANCY REF: SAE-027350
Salary: Grade 7 £46,485 to £56,921 per annum, depending on relevant experience
Hours: Full time (1 FTE)
Duration: Permanent
Location: Oxford Road, Manchester

Enquiries about the vacancy, shortlisting and interviews:
Name: Dr Kate Smith
Email: kate.smith@manchester.ac.uk
Name: Prof Alistair Revell
Email: alistar.revell@manchester.ac.uk

Background
The University of Manchester has a wide range of expertise in all aspects of fluid mechanics, including theoretical, computational and experimental work spanning a broad range of Engineering applications as well as expertise in Mathematics, Physics, Environmental Sciences. It is envisaged that appointees will be based in the Department of Mechanical and Aerospace Engineering in The School of Engineering, which is comprised of around 80 academic and research staff and over 250 PhD students. Our research has a strong focus on aerospace technologies and science, with an unwavering commitment to addressing the global challenge of sustainable aviation and space exploration.

We have nationally and globally unique facilities including our High Speed Supersonic wind tunnel, Miniature gas turbine engine test cell and space environment test facilities. We collaborate with industry across the aerospace sectors from SMEs to large multinationals and aerospace primes. Our research spans fundamental topics to applied technology and vehicle development. We have design build and fly experience including jet powered UAVs and a CubeSat mission.

In addition to our Aerospace research, we also carry out world-leading research in thermodynamics,

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heat transfer and robotics, amongst others. The teaching opportunities for the appointee will include contributions to the development, delivery and coordination of content in aerospace propulsion, engineering design and thermofluids strands. All of which form a key part of our undergraduate programs in Aerospace and Mechanical Engineering, and our specialist master's programs including Aerospace Engineering, Thermal Power and Fluids Engineering, and Renewable Energy and Clean Technology.

Key Responsibilities, Accountabilities or Duties

Overall Purpose of Role
The role-holder will develop research and teaching in research areas relating to aerospace propulsion systems. This will entail collaboration with colleagues within the school and across the wider University, as well as more widely with industrial and international collaborators and stakeholders, to develop a portfolio of cutting edge disciplinary or interdisciplinary research activity. The appointee may also lead on the delivery and development of teaching on fundamental topics and topics related to aerospace propulsion and/or thermofluids for either disciplinary or interdisciplinary programmes in the school, with opportunities to also contribute to cross-University programmes.

Main Responsibilities
• Securing funding from research councils and other relevant sources such as industry and non-government bodies to support research activity and researchers
• Development and delivery of internationally excellent research in Aerospace Engineering
• Supervision of postgraduate research students and researchers
• Publication of research in leading journals and presentation at international conferences and in other fora relevant to stakeholders and end-users of the research
• Undertaking teaching duties (including but not limited to assessment, academic advising and project supervision) within the University on undergraduate and postgraduate courses. This may include topics core to the discipline or aligned with research activity or with wider interdisciplinary scope
• Contribution to relevant service duties, commensurate with the level of appointment, to support efficient operation of the organisation
• Engagement with relevant committees within the School and/or the University
• Embedding social responsibility and environmental sustainability within teaching and research practice

Person Specification
Essential Knowledge, Skills, and Experience
• Educated to PhD level or equivalent in a relevant topic; e.g. aerospace/mechanical engineering,

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physics, etc
• An established and continuing trajectory track record of research output in internationally leading journal publications or other equivalent recognised forms of research output
• Capability for, developing and leading significant research bids and teams, establishing links with industry and other academic researchers, generating funding streams from research councils, European Commission, and industry
• Ability to lecture to large classes and supervise group and individual projects at Masters and undergraduate level
• Excellent communication skills and an ability to foster interdisciplinary collaboration
• Good management and teamwork skills
• Membership, or intention to become a Member, of an appropriate Professional Institution (e.g. RAeS, IEEE, IMechE, IET, ICE, etc)
• Commitment to taking responsibility for the health and safety of others, including the development and implementation of risk assessments
• Commitment to contributing improvements to advance our inclusive, equal and fair working environment

The University of Manchester
The University of Manchester (www.manchester.ac.uk) enjoys a global reputation for its research and its innovative approach to learning, with a £1 billion investment in facilities, staff, and new buildings across the campus, including new Engineering Buildings that fully opened in 2022. This builds on our tradition of success that stretches back nearly 200 years. The birth of the modern computer, the splitting of the atom, the founding principles of modern economics, the discovery of graphene, and the birthplace of chemical engineering – these and many more world changing innovations have their roots at our University. We are at the forefront of the search for solutions to some of the world's most pressing challenges, with strong collaborative links with industry and public services. These are exemplified through the University of Manchester Research Beacons including Energy and Advanced Materials and research platforms Sustainable Futures and Digital Futures.

We are keen to highlight our policy of actively seeking to align our Teaching and Research with the United Nations Sustainable Development Goals. The University is the only university in the world to have featured in the global top 10 each year since the rankings were established in 2019. The University is also proud to be the top performing institution in Europe for Environmental, Social and Governance (ESG) performance in the QS World University Sustainability Rankings.

The University actively fosters a culture of inclusion and diversity and seeks to achieve true equality of opportunity for all members of its community. The Faculty welcomes applications from all sections of

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the community and are committed to having a representative workforce. Across the Schools we hold Bronze and Silver Athena SWAN Awards, which recognise our commitment to equality, diversity, and inclusion and particularly the advancement of women's careers in STEM.

The University also holds a Bronze Race Charter Mark recognising our commitment to improving the representation, progression and success of minority ethnic staff and students within higher education. In addition, we are a Disability Confident Employer, guaranteeing an interview for any disabled applicant who meets the minimum requirements for a job.

The School of Engineering
Formed in 2019 the School of Engineering brings together over 350 academics and their research teams across a range of engineering disciplines to undertake leading Science-based engineering with Societal Impact. We support engineers and scientists who are technically strong, analytically innovative, and creative. Key thematic priorities include Net Zero & Environmental Sustainability, Robotics, Autonomous Systems & AI, Digital Engineering, Advanced Manufacturing, Engineering for Health, and Engineering Materials with strong collaboration with the School of Natural Sciences in many areas.

The School of Engineering leads or has strong relationships with research centres and Institutes including the Dalton Nuclear Institute, Tyndall Centre for Climate Change Research, Rolls Royce UTC, National Grid Power Systems Research Centre, Thomas Ashton Institute, Manchester Environment Research Institute, Photon Science Institute, Sustainable Consumption Institute, Global Development Institute, the Modelling & Simulation Centre and the recently formed centre for Robotics & AI. Over the last two-years most of our 350 academic staff, research teams and activities have relocated to new engineering buildings located on our main Campus. Unrivalled in scale in the UK, this £450 Million investment in infrastructure combines Manchester's heritage as the birthplace of the industrial revolution with a wide range of purpose-built teaching and experimental facilities that will deliver a step-change in our approach to solving some of the world's most pressing issues.

EEO/AA Policy

Equality, diversity and inclusion | The University of Manchester

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Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact

United Kingdom