

Senior Lecturer in Engineering Design



OPPORTUNITY

Where change
gets real.



Reference: 1265-25

Grade: 10

Salary: £58,225 to £67,468, per annum, depending on experience

Contract Type: Permanent

Basis: Full Time

Job description

Job Purpose:

To provide academic leadership in engineering design education and research within the School of Engineering and Innovation. The post holder will lead and develop interdisciplinary and sector-aligned design modules, contribute to the delivery of mechanical, biomedical and product design programmes and support the design of the new aerospace engineering programme.

We particularly welcome candidates with experience in engineering design approaches and professional workflows across multiple sectors, such as aerospace, automotive, utilities, infrastructure, consumer and manufacturing and who can foster cross-sectoral understanding of design cultures.

The School of Engineering and Innovation is highly active in developing and disseminating innovative teaching practices. The successful applicant will play a key role expanding experiential learning approaches within large-scale interdisciplinary settings connecting digital simulation and physical design.

Aston is part of the international CDIO and global Design Factory networks and you will work closely with Design Factory Birmingham and external partners to bring real engineering design problems and industrial challenges to the student experience, helping students to develop authentic professional skills and innovation mindsets.

The postholder will join a collaborative and collegial team that values innovation, inclusivity and student development. We add value beyond curriculum and we seek someone who shares our commitment to shaping capable, creative and compassionate engineers.

The majority of academic staff will undertake a balance of research and teaching and learning activities. Whilst ability and effectiveness should be demonstrated in all areas, individuals may be more specifically focussed on research, teaching and learning or external engagement. This balance will be discussed and agreed with individuals annually in the PDR meeting in line with operational needs, School and University strategy and with consideration of the individual's career goals and development plans.

Scope of Engineering Design in Practice

Engineering design at Aston aims to develop graduates who are creative, adaptable and able to contribute across multiple industrial sectors. The successful candidate will play a key role in shaping learning experiences that reflect the diversity of engineering practice and approaches in different domains.

Students will engage in authentic engineering projects spanning multiple disciplines including aerospace, mechanical, product and manufacturing design, developing both systems-level understanding and component-level design skills. Design activities should include the conception, modelling, simulation, prototyping, testing and validation of engineered systems and components, supported by modern digital workflows.

Students will be taught to connect digital design, analysis and experimentation through iterative workflows that mirror professional practice – moving from concept and modelling through simulation, prototype, physical testing and analysis of results to refine design.

Main duties and responsibilities

Teaching and Learning

- ▶ Lead and develop innovative teaching in engineering design that is informed by digital design tools and simulation workflows across sectors, including mechanical and product design contexts.
- ▶ Collaborate with Design Factory Birmingham and industrial partners to embed authentic design projects
- ▶ Design and lead interdisciplinary design modules, connecting engineering disciplines with business, sustainability and global responsibility
- ▶ Employ experiential learning methods such as CDIO and PBL to deliver engaging, large-scale, hands-on learning experiences that mirror professional practice
- ▶ Supervise and mark undergraduate and postgraduate design projects and take an active pastoral role as a personal tutor
- ▶ Contribute to the continuous reflection and improvement of curriculum and assessment embedding inclusivity and accessibility
- ▶ Support the integration of professional engineering software tools (such as Autodesk, Simulink, FEA/Software and Adobe) into engineering design education

Research and Scholarship

- ▶ Undertake and publish research, scholarship or pedagogical innovation in engineering design, design education and/or digital engineering
- ▶ Seek external research and knowledge exchange funding, including from industry and research councils
- ▶ Build collaborations across academia and industry to advance Aston's profile in engineering design and education innovation

Leadership and Engagement

- ▶ Lead curriculum development in interdisciplinary engineering design
- ▶ Build partnerships through Design Factory Birmingham to expand student opportunities and success
- ▶ Engage with external stakeholders, professional bodies and industrial partners to enhance curriculum
- ▶ Contribute to outreach, widening participation and public engagement activities

Additional responsibilities

- ▶ Engage in continuous personal and professional development in line with the demands of the role, including undertaking relevant training and development activities to develop themselves and support the development of others.
- ▶ Ensure and promote the personal health, safety and wellbeing of staff and students.
- ▶ Carry out duties in a way which promotes fairness in all matters and which engenders trust.
- ▶ Promote equality of opportunity and support diversity and inclusion as well as working to support the University's environmental sustainability agenda and practices.

Person specification

	Essential	Method of assessment
Education and qualifications	PhD (or equivalent industrial experience) in Engineering Design or a closely related discipline. Fellowship of HEA (or ability to achieve within the first 12 months)	Application form
Experience	Substantial experience of teaching or practicing engineering design or carrying out design within industry. Experience with digital tools for design and simulation (e.g. Autodesk, Matlab, FEA and CFD). Experience leading large-scale practice-based modules using CDIO, PBL or similar approaches. Track record of research or scholarship in engineering design.	Application form and interview
Aptitude and skills	Ability to inspire students and foster creativity and professional practice. Strong interpersonal, leadership and organisational skills. Commitment to inclusive, interdisciplinary and industry-connected teaching.	Application form and interview

	Desirable	Method of assessment
Education and qualification	CEng status Senior Fellowship of HEA	Application form

	Desirable	Method of assessment
Experience	Industrial experience in engineering design in aerospace, automotive or related sectors. Proven understanding of professional design workflows across multiple sectors (e.g. aerospace, automotive, manufacturing). Supervision of doctoral research in design or systems engineering. Experience of accreditation of engineering programmes.	Application form and interview
Aptitude and Skills	Alignment with Aston's research themes.	Application form and interview

University values

All staff are expected to demonstrate/promote the University's values and expectations, which are an integral part of our strategy and underpin the culture of the University. In addition, our leaders are expected to be accountable, help to execute strategic visions of the University and share and set clear expectations that inspire those around them.

Values + Behaviours



Innovation

We strive for excellence within ourselves and others, providing solutions to new and existing challenges.



Collaboration

We work best when we are collaborative, working together to contribute to the Aston community.



Ambition

We strive together for improvement and innovation looking ahead to see the bigger picture.



Inclusion

We treat everyone in our community equally and how they would like to be treated.



Integrity

We are open, honest and fair. We take ownership of the way we work and how we treat each other.

How to apply

You can apply for this role online via our website <https://www2.aston.ac.uk/staff-public/hr/jobs>.

Applications should be submitted by 23.59pm on the advertised closing date.

All applicants must complete an application form, along with your CV.

Any CV sent direct to the Recruitment Team and Recruiting Manager will not be accepted.

If you require a manual application form, then please contact the Recruitment Team via recruitment@aston.ac.uk.

Contact information

Enquiries about the vacancy:

Name: Claire Lucas

Job Title: Professor and Dean of School of Engineering and Innovation

Email: c.lucas@aston.ac.uk

Enquiries about the application process, shortlisting or interviews:

Recruitment Team via recruitment@aston.ac.uk or 0121 204 4500.

Additional information

Visit our website <https://www2.aston.ac.uk/staff-public/hr> for full details of our salary scales and benefits Aston University staff enjoy.

Salary scales: <https://www2.aston.ac.uk/staff-public/hr/payroll-and-pensions/salary-scales/index>

Benefits: [Benefits and Rewards | Aston University](#)

Working in Birmingham: <https://www2.aston.ac.uk/birmingham>

Employment of Ex-Offenders: Under the Rehabilitation of Offenders Act 1974, a person with a criminal record is not required to disclose any spent convictions unless the positions they applying for is listed an exception under the act.

Eligibility to work in the UK: You should ensure that you meet the eligibility requirements, including meeting the [English language standards](#). If you do not meet the eligibility criteria, any application for a work visa would be unsuccessful. Please see UKVI guidance for further information on eligibility, knowledge of English requirements and approved test centres <https://www.gov.uk/tier-2-general>

With the end of free movement for EU/EEA/Swiss nationals from 1 January 2021, the UK's new immigration system applies to all non-UK/Irish nationals who require a visa.

Where an individual is subject to UK immigration control, they will require a visa to work in the UK.

The following individuals do not need a visa for the UK, but do still have to prove their right to work before employment can commence:

- **British Citizens or Irish Nationals**
- **EU/EEA/Swiss nationals with Settled or Pre-settled status under the EU Settlement Scheme**
- **Non-EEA nationals with Indefinite Leave to Remain/Settlement in the UK**

The main routes available for those who need a visa to work in the UK are **Skilled Worker**, **Global Talent** and the **Graduate Route**.

You can find further information about each of these visa routes on our candidate immigration page.

If you will conduct research in your role, you may need to apply for and obtain ATAS clearance before Aston can issue a Certificate of Sponsorship for your visa application. Please see below for further details.

Academic Technology Approval Scheme (ATAS):

If you will conduct research in your role and you apply for a Skilled Worker or Temporary

Worker GAE visa, you may need to apply for and obtain ATAS clearance before Aston can issue a Certificate of Sponsorship for your visa application.

This process can take at least 6 weeks to process, and Aston will consider this when confirming your expected start date. Processing times will increase between April and September and can longer to complete.

There is no fast-track option available. ATAS certificates will be processed in order of receipt.

You can find more information about ATAS on our candidate immigration page.

Before you start and Right to Work

90-day entry vignette

If you have applied for your visa outside of the UK, you will receive a vignette in your passport which is usually valid for 90 days. Please make sure to travel to the UK within the 'valid from' and 'valid to' dates on this visa. If you entered the UK before or after these dates, you would not 'activate' the visa and you would need to leave and re-enter the country.

You will also receive a decision letter confirming details about your immigration permission and where to collect your Biometric Residence Permit.

Cost of Living - Estate and Letting Agents

There are numerous Estate and Letting Agents in and around Birmingham that can help you find suitable accommodation. The Midland Landlord Accreditation Scheme provides a list of professional agencies and landlords who have applied with them for accreditation. Whilst accreditation is not a guarantee of quality, it provides some reassurance about the standard of the service they provide.

You can also use property search websites such as Rightmove or Zoopla.

Equal Opportunities

Aston University promotes equality and diversity in all aspects of its work. We aim to ensure, through our admissions policies for students, and our staff recruitment and selection processes that we encourage applications from all groups represented in the wider community at a local, national and international level.

The University will endeavour not to discriminate unfairly or illegally, directly or indirectly, against student or potential students, staff or potential staff. This commitment applies to all functions of the University and to any stage of an individual's career.

An Equal Opportunities Monitoring Form is included within the application form. Data you provide on the Equal Opportunities Monitoring Form will be included in a general database, for statistical monitoring purposes, enabling the University to monitor the effectiveness of its

Policy, Codes of Practice and Guidelines on Equal Opportunities in Employment.
Individuals will not be identified by name.

Data Protection

Your personal data will be processed in compliance with the Data Protection Act 2018 and the General Data Protection Regulation ((EU) 2016/679) ("GDPR"). The University's Data Protection Policy and Privacy Notices, including the Job Applicant Privacy Notice can be found at <https://www2.aston.ac.uk/data-protection>. Your application will only be used to inform the selection process, unless you are successful, in which case it will form the basis of your personal record with the University which will be stored in manual and/or electronic files. Information in statistical form on present and former employees is given to appropriate outside bodies.

Full details of our terms and conditions of service and associated policies and procedures are available online at <https://www2.aston.ac.uk/staff-public/hr/policies>

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