

**Reference:** R210039

**Salary:** Grade 8 or 9, £33,797 to £49,553 per annum

**Contract Type:** Continuing

**Basis:** Full Time

**Closing Date:** 14 March 2021

**Interview Date:** TBC

## Lecturer in Mechanical and Manufacturing Engineering

Candidate brief



# Job description

## Job Purpose:

At Lecturer level, we seek a candidate to contribute to, develop and enhance the teaching and scholarship and related activities of the College of Engineering and Physical Sciences, as part of the Mechanical, Biomedical & Design subject group.

The Group is highly active in developing innovation in teaching and it is expected that the successful candidate will have a strong and progressive student-centred focus to her or his teaching interests.

The successful applicant will also be expected to be active in research with a well-established or developing reputation. Typically, we would expect candidates to present early evidence of leadership and innovation, the supervision of research students and/or fellows, developing track record in attracting research funding, and excellent outputs having both academic and non-academic impact.

Within the College as a whole we have strong experience in mechanical engineering, materials, photonics and sensors, digital engineering, biomedical engineering, sustainable energy and transport, engineering systems and management, and data analytics. This new post is seen as vital in allowing us to achieve our goals and very significant opportunities exist for the correct candidate to grow with this activity.

Together with industrial opportunities, further growth is also anticipated in teaching related activities, particularly at Masters level and in non-traditional programmes and delivery modes.

The subject group currently runs the following taught degrees:

- BEng / MEng Mechanical Engineering
- BEng Design Engineering
- BEng / MEng Biomedical Engineering
- BSc Product Design & Technology
- BSc Product Design & Management
- MSc Mechanical Engineering
- MSci Design, Enterprise and Innovation
- MSc Future Vehicle Technologies

The group as a whole is very much at the forefront of developing new ways of looking at engineering education and are leading players within the International CDIO initiative focussed on delivering integrated and practical forms of engineering education. ([www.cdio.org](http://www.cdio.org))

Aston prides itself on an active and engaging learning approach for its students. The role demands the applicant is effective in working with a lively student community, helping the students to learn and develop through real world teaching e.g. including engaging classes, insightful reviews, industry relevant lectures, tutorials and workshop projects. We are looking for general and specialised teaching and require teaching expertise in Industrial Manufacturing, Smart Manufacturing, Digital Manufacturing, Mechatronics, Control Electronics, Control and Automation, Smart Systems, Autonomous Systems, and/or Robotics.

Research areas of specific interest to the group are:

- Manufacturing and Materials
- Engineering and Design education
- Sustainable energy and transport, including decarbonising technologies and use of renewable resources
- Biomedical / Healthcare

We particularly welcome candidates with a strong research background in industrial, smart or digital manufacturing, robotics.

## **Main Duties/Responsibilities:**

### **Learning and Teaching**

- To teach mechanical engineering and design degrees at undergraduate and postgraduate levels. Specific subject areas likely to be covered by the post holder include smart and/or digital manufacturing, industrial robotics etc.
- To prepare learning materials including lecture notes and tutorials together with the creation and marking of assessments including coursework and examinations.
- To support the learning of students through a variety of means including lectures, tutorials, laboratories, one to one meetings, whole class group projects and individual final year projects which may involve conventional on-campus activity, blended learning or remote teaching as required.
- To support student learning through a VLE and other e-learning tools as appropriate.
- To act as personal tutor to allocated students and provide academic support and advice to the wider body of undergraduate and postgraduate students.
- To cooperate with colleagues across disciplines in the continuous review and development of programmes and the curriculum.
- To participate in relevant programme, subject group and examination boards.
- To support or lead on a number of operational issues which depending on need and experience may include year head, programme director or representative of group on school or university committees.
- To use and promote the use of a range of methods and techniques in teaching, learning and assessment including pursuing digital and modern methods of delivery.
- To innovate in teaching, demonstrate continuous professional development and critical reflective practice.

### **Research**

- To contribute to a research programme consistent with the College's research priorities that will make a significant impact by leading to an increase in knowledge and understanding
- We particularly welcome candidates with a strong research background in industrial, smart or digital manufacturing, robotics
- To involve, develop and support other academic staff in fulfilling their research objectives
- To publish the outcomes of research in outlets of national and international standing
- To actively seek and secure external research funding as principal and co investigator
- To supervise and manage research projects
- To supervise postgraduate students at Master's and Doctoral levels
- To collaborate in research initiatives with colleagues in and beyond the College of Engineering & Physical Sciences as appropriate

### **Community Engagement and Citizenship**

- To participate in activities to raise the regional and national profile of the College of Engineering & Physical Sciences and the Mechanical, Biomedical & Design group, particularly with schools and businesses.
- To forge relationships with key local bodies.
- To raise funding for third-stream activities and Intellectual Property exploitation.
- To carry out specific College roles and functions as required e.g. Module Leader, Personal Tutor
- To manage own teaching, scholarship and administrative activities
- To provide pastoral care and support to students.
- To display and promote Aston values through own actions and behaviour.

**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
<b>Education and qualifications</b>	<p>BEng or higher in Mechanical Engineering, Manufacturing or a related discipline.</p> <p>A PhD in a relevant discipline e.g. General Engineering, Mechanical Engineering, Electronic and Electrical Engineering, Manufacturing Engineering or related subject.</p>	Application form
<b>Experience</b>	<p>Experience of initiating, conducting, contributing to and leading independent research.</p> <p>A developing track record of publications.</p> <p>A developing track record of research impact and esteem.</p> <p>Experience in applying for research grants and other funding.</p> <p>Have evidence of student centred learning, through activities in teaching, mentoring or other.</p> <p>Evidence of teaching experience in the field of Manufacturing, Electromechanical Systems, Mechatronics, Control and Automation, Autonomous Systems, Robotics or related subject.</p> <p>Experience of using VLE's as a learning tool e.g. Blackboard.</p>	Application form, presentation and interview
<b>Aptitude and skills</b>	<p>Have ability to deliver educational material in an engaging and interactive manner.</p> <p>Ability to work effectively as a member of a team.</p> <p>A willingness to undertake further training as appropriate and to adopt new procedures as and when required.</p>	Application form and interview

	Desirable	Method of assessment
<b>Education and qualifications</b>	<p>Membership of relevant professional body.</p> <p>Teaching qualification at the appropriate level e.g. PGCPP/HE (or equivalent) / fellowship or higher of the Higher Education Academy.</p>	Application form

	Desirable	Method of assessment
<b>Experience</b>	Strong engagement with industry and/or other relevant stakeholders.	Application form, presentation and interview
<b>Aptitude and skills</b>	<p>Ability to provide tutorial and counselling advice to undergraduate and postgraduate students.</p> <p>Ability to lead course and programme development.</p>	Application form, presentation and interview

## 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 [jobs@aston.ac.uk](mailto:jobs@aston.ac.uk).

## Contact information

### Enquiries about the vacancy:

Name: Laura Leslie

Job Title: Head of Mechanical, Biomedical and Design

Email: [l.j.leslie@aston.ac.uk](mailto:l.j.leslie@aston.ac.uk)

Name: Yuchun Xu

Job Title: Professor of Manufacturing

Email: [y.xu16@aston.ac.uk](mailto:y.xu16@aston.ac.uk)

### Enquiries about the application process, shortlisting or interviews:

Recruitment Team via [jobs@aston.ac.uk](mailto:jobs@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:** <https://www2.aston.ac.uk/staff-public/hr/Benefits-and-Rewards/index>

**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:** Candidates who are not citizens of the United Kingdom, or another EEA member country, should check their eligibility to enter or remain the UK in advance of making any job application via the UKVI website <https://www.gov.uk/browse/visas-immigration/work-visas>. Before applying you should ensure that you meet the requirements, including meeting the English language standards. If you do not meet the eligibility criteria, any application for a work visa would be unsuccessful

**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>





