

Appointment details

Senior Engineer



Closing date
23 November 2014

Ref: R140342

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▶ About Aston University

At a time of significant change within the Higher Education sector, with more emphasis being placed on widening participation, graduate employment, the student experience and the impact of research on society, Aston looks forward to the future with confidence.

Aston's vision is to be the UK's leading University for business, enterprise and the professions, where original research has a positive impact on the world around us. Aston's strategy 'Forward to 2020' describes Aston as a top research-led international University renowned for developing future leaders of business and the professions.

We already 'punch above our weight' and have high, yet realistic, aspirations for 2020 that include:

- ▶ Ranked within the top 1% of universities in the world, and consistently in the Top 20 in the UK
- ▶ In the Top 10 for Graduate Employability in the UK and Top 40 worldwide
- ▶ Focussed on the needs of business and the professions, with all Aston undergraduate students taking part in integrated work experience
- ▶ Carrying out world class research that leads to the creation of practical and applicable

solutions for the challenges of the future, and contributes to the development of research leaders and entrepreneurs

- ▶ Providing an inspiring, challenge-based education for students, equipping them to develop into global citizens, with the skills, knowledge and confidence they will need to achieve their goals and reach their full life potential
- ▶ Engaging with our community and city, recruiting students with talent regardless of income and background, and partnering with business, the professions and the public sector
- ▶ Putting sustainability at the centre of all we do, ensuring that Aston is one of the greenest and most sustainable of all UK universities, in the Top 5 of the People and Planet League.

Students are at the heart of everything we do within Aston's small and friendly community – in the way we think and in the way we act. The student experience is distinctive and unique at Aston because it is built and lived by students and staff as equal partners in the relationship. Our students are engaged in all aspects of their academic and social lives at Aston; our staff are genuinely interested in their students, their success and their welfare, and are universally approachable and friendly.



Welcome from Professor Bjorn Birgisson

Dear applicant

I am delighted that you are considering applying for this position at what is a particularly exciting time for Aston University, and in particular for the School of Engineering and Applied Science.

The School's tradition of quality and innovative teaching, and its reputation for cutting edge research that is relevant to industry, business and society, offers our staff and students excellent opportunities to join in the process of discovery and creativity, and prepare for an increasingly diverse and technological world.

Our scientists and engineers work together with a variety of other professionals in their quest to find solutions to complex problems. Our research income has grown dramatically over the past five years with awards growth trebling and now at a level of over £9M / year and still growing. A particularly important development is the establishment of new substantive Research institutes in photonics (Aston Institute for Photonics Technology) and in bioenergy (European Bioenergy Research Institute).

Teaching innovation and quality are a vitally important focus. In the School of Engineering and Applied Science we are inspired by the challenges of providing a vibrant, fulfilling and effective student experience, and this is reflected in our attention to teaching innovation; we are particularly proud of our innovation in introducing "active engineering" across our curriculum. We encourage our students to learn by doing – e.g., in multidisciplinary project groups.

It is a very exciting time to be a part of Aston and I look forward to receiving your application and learning more about how you would contribute the schools continuing success.

Professor Bjorn Birgisson
Executive Dean, School of Engineering and Applied Science



► Job description

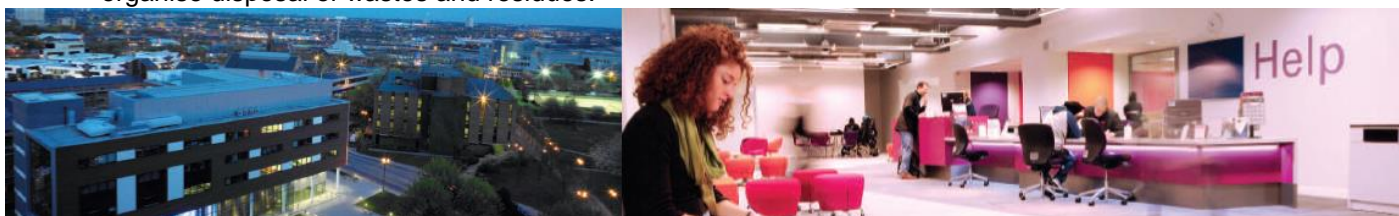
A suitable candidate with relevant pilot or demonstration plant operation experience, is required to support the operation of the EBRI pilot plant which consists of a 400 kg/h gasifier, a 100kg/h pyrolysis unit, a close coupled linkage between these units and a 400 kWe CHP engine. The duties include:

- Assist in research planning and execution,
- Obtain and interpret data for mass and energy balances,
- Supervise support engineers,
- Manage contractors,
- Plan maintenance and repairs,
- Communicate to technical and non-technical visitors including providing guided tours of the facility,
- Contribute to the development of the plant including modifications and extensions,
- Assist in other research activities in the EBRI laboratories when and where possible,
- Understand and oversee process control systems and their development.

The candidate will be part of an operational team of initially up to two engineers with support from academics, research fellows and contractors. The role holder will report to the Director of EBRI.

Responsibilities

- To maintain, repair or organise repairs, develop, commission, install, process and mechanical equipment that is used in the EBRI demonstration plant.
- To liaise with relevant staff in other EBRI laboratories.
- To perform and/or supervise manual and mechanical handling of equipment, gases, liquids, solids and general tidiness around the plant.
- To observe and implement all Health & Safety rules and regulations in the workplace.
- To assist in conducting risk assessments, to develop best working procedures, to implement safe and effective methods to operate the plant on a daily basis.
- To be an effective and efficient team member and support other plant operators and members of staff.
- To order and prepare equipment, materials, consumables and spares for efficient operation of the plant and organise disposal of wastes and residues.





- ▶ To organise and implement test campaigns on the pilot plant units.
- ▶ To assist with other projects elsewhere in the EBRI laboratories when possible.
- ▶ To develop good relationships with EBRI staff, managers, partners and visitors.
- ▶ To assist with solving issues related to EBRI plant operation.
- ▶ To follow the instructions, advice and guidance as delegated by the EBRI plant manager and/or directors of EBRI within reasonable remit of the post holder and as per HSE guidelines.



► Person specification

	Essential	Method of assessment
Education and qualifications	A good first degree or equivalent in chemical engineering, mechanical engineering or a related discipline.	Application form
Experience	<p>Substantial experience of working on process plants, mechanical handling, bioenergy plants such as pyrolysis and/or gasifier units and CHP systems.</p> <p>Sound knowledge and experience of carrying out mass and energy balances on process plant, especially pilot plants and demonstration plants based on chemical engineering principles.</p> <p>Knowledge of day to day running requirements, maintenance and troubleshooting on process plants especially pilot and demonstration plant such as bioenergy systems.</p> <p>Experience in following safe working procedures including experience of carrying out Hazop and SOP procedures and being a member of a team of on-site engineers.</p> <p>Experience in managing relationships with stakeholders and contractors such as biomass suppliers, parts manufacturers, contractors and subcontractors, academics.</p>	Application form and interview
Aptitude and skills	<p>Excellent communication skills.</p> <p>Excellent organisational and mechanical skills.</p> <p>High level of initiative.</p> <p>Highly developed interpersonal skills.</p> <p>High level of proficiency in using Microsoft packages, and working with spreadsheets and databases.</p>	Application form and interview



	Desirable	Method of assessment
Education and qualifications	<p>A PhD in a relevant discipline.</p> <p>Experience of process control systems.</p>	Application form, interview
Experience	<p>Substantial experience in the bioenergy industry or chemical plants construction and/or operation.</p> <p>Experience in gasification, pyrolysis and combined heat and power systems.</p> <p>Ability to fault-find, plan and execute plant maintenance and repairs.</p> <p>Working knowledge of basic electronics and control systems e.g. wiring of power supply modules, use of Matlab for data/control systems.</p>	Application form and Interview
Aptitude and skills	<p>Able to operate in complex technical, scientific and engineering environments and write publications in less busy times.</p> <p>Excellent oral communication skills with a well-developed ability to liaise with external collaborators and research partners, often at a variety of levels.</p> <p>Excellent organisational skills with a proven ability to prioritise and meet deadlines within the framework of an agreed programme.</p> <p>Must be willing to update knowledge of bioenergy systems by attending further training both on and offsite.</p>	



► Salary & benefits

This post is offered on a full time, fixed term basis. The appointment is Grade 8 and the salary range for this grade is £31,342 - £37,394 per annum.

Holiday entitlement	30 days per annum, in addition to 13 days public and university holidays.
Pension	Eligible staff are offered a defined benefit pension with the University Superannuation Scheme.
Contribution pay	The University's Performance Development and Reward Scheme provides for salary enhancement for staff who are considered to be performing at an exceptional level on a consistent basis.
Relocation	Aston University aims to recruit the most talented individuals. This policy is intended to support this aim by providing assistance to new employees who have to relocate to take up a position. This policy applies to staff appointed to a position from 1 January 2014 at grade 7 (salary point 25) or above on an open-ended contract or to a fixed term position of two years or more, and who have to relocate their place of residence in order to take up the appointment.

Visit our website: aston.ac.uk/hr for full details of our [salary scales](#) and the [benefits](#) Aston University staff enjoy.



► How to apply and the selection process

Please visit our website aston.ac.uk/jobs to apply online. If you do not have internet access, call 0121 204 4500 and leave your name and address quoting the job title and reference number.

Closing date for applications 23 November 2014

Interview date To be confirmed

Please contact Tim Miller (EBRI Director of Operations) for an informal discussion about the role.

Tel: +44(0) 121 204 3583 Email: t.miller1@aston.ac.uk

If you would like information on the progress of your application, advice on any aspect of the appointment process, or a conversation about our terms and conditions of service, please contact:

Angela Thakur
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► Outline terms and conditions of the appointment

Qualifications

Successful candidates will be required to produce evidence of their qualifications upon joining the University

Medical clearance

It is a condition of appointment that newly-appointed staff receive medical clearance from the University's Health Centre.

Eligibility to work in the UK

Candidates who are not citizens of the United Kingdom, or of another EEA member country, should ensure that they meet the requirements of one of the 5 tiers of the immigration points based system.

Candidates should check their eligibility to enter or remain in the UK in advance of making any job application using the [points-based calculator](#) on the UK Visas and Immigration website. If you do not meet the minimum points requirement, you will not be able to work in the UK and any application for employment would be unsuccessful.

Document checks

As a result of the implementation of sections 15 to 26 of the Immigration, Asylum and Nationality 2006 Act on 29 February 2008, the University requires all prospective and, in some cases, current employees, to provide documentation to verify their eligibility to work in the UK. Further information about these requirements can be found on the [UK Visas and Immigration website](#).

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 students 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 at Aston.

An Equal Opportunities Monitoring Form is included with the application form.



Data Protection Act 1998

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.

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

Disclosure and Barring Service (DBS)

Under the Rehabilitation of Offenders Act 1974, a person with a criminal record is not required to disclose any spent convictions unless the position they are applying for is listed as an exception under the act.

Full details of our terms and conditions of service and associated policies and procedures are available online at www.aston.ac.uk/hr.



Aston University
Employable Graduates
Exploitable Research

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