Where change gets real.

OPPORTUNITY

Postdoctoral Research Associate

Reference: 0097-23

Salary: £35,333 to £37,474 per annum. Grade 8, depending on experience

Contract Type: Fixed term until 1 March 2024

Basis: Full Time

Job description

Job Purpose:
To contribute to the funded Innovate UK Project PASCAL (Photon Absorption Spectroscopy CAmera for Leaks) by developing photon counting instrumentation using Xilinx Field Programmable Gate Arrays (FPGAs). In addition, the research associate will be expected and supported to write and/or contribute to grant funding applications to sustain continuous research group funding.

Main Duties and Responsibilities

Research

▶ To develop and implement complex digital circuits on FPGAs (Xilinx Spartan 6 and Kintex 7) using VHDL.
▶ To develop instrument data acquisition software.
▶ To test and characterise instruments developed using laboratory test equipment and post-processing scripts implemented in Matlab.
▶ To report on progress and communicate findings to the project consortium.
▶ To write up and publish the outcomes of research in good quality publications. To present papers, posters, reports at seminars, conferences etc.
▶ To identify sources of funding, develop and submit funding applications, securing external research funding.

External engagement

▶ To collaborate with the research consortium's partners.
▶ To interface to external funding bodies for future research.

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	A good first degree in Electronic Engineering/Electrical and Electronic Engineering. A PhD in a relevant subject (digital design, instrumentation, embedded systems etc).	Application form
Experience	Experience of: • Developing complex systems using FPGAs (Xilinx preferably) using VHDL. • Creating test-benches using VHDL to verify system functionality. • Experience of performing tests and system charecterisation using laboratory equipment (pulse generators, oscilloscopes etc). • Modifying/creating C code. • Post processing data (Matlab preferred) to extract information of interest and plot it graphically.	Application form and interview
Aptitude and skills	Ability to liaise with external project partners. Potential of transition to independence and self-management Critical thinking and problem solving Ability to present data in written and graphical communications A willingness to undertake further training as appropriate and to adopt new procedures as and when required.	Application form and interview

|	Desirable	Method of assessment
Experience	Experience of writing up/contributing to the write up of reserch for high quality publications. Development of instrumentation.	Application form and interview
Aptitude and Skills	C/C++ programming skills. Matlab m script programming skills.	Application form 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.
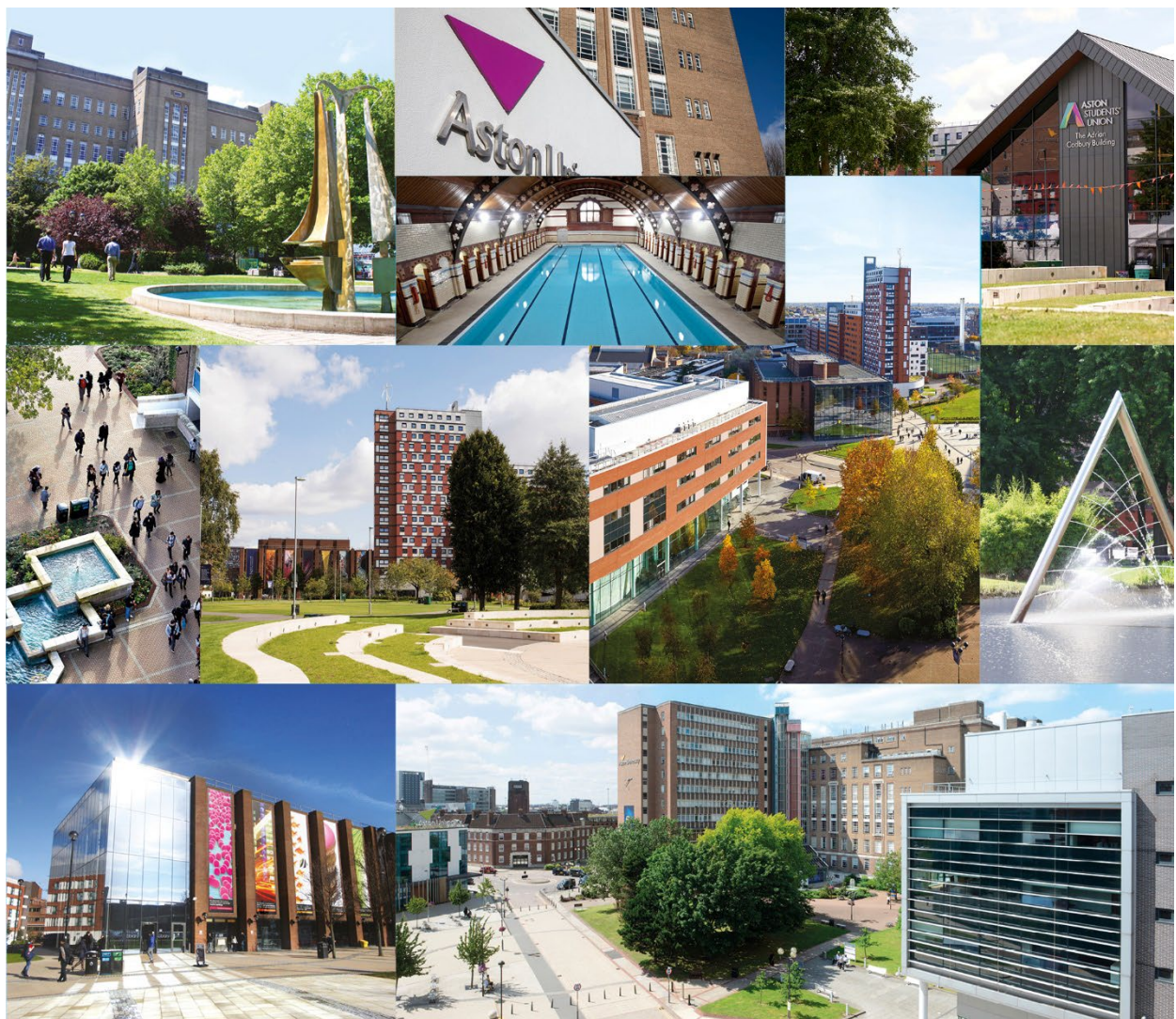
Contact information

Enquiries about the vacancy:

Name: Richard Nock
Job Title: Senior Lecturer
Email: r.nock@aston.ac.uk

Enquiries about the application process, shortlisting or interviews:
Recruitment Team via 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:
New immigration system from 1 January 2021
A new immigration system has been introduced for people arriving in the UK from EEA countries with effect from 1 January 2021. In addition to those who have always required a visa, EU citizens who were not resident in the UK before 31 December 2021 will need to get a visa in advance.

You can find more information here

Candidates should check their eligibility to enter or remain in the UK in advance of making any job application via the UKVI website. Before applying you should ensure that you meet the requirements, including meeting the English Language requirements. If you do not meet the eligibility criteria, any application for a work visa would be unsuccessful.
If you require a visa to work in the UK the most common types of visa are:

- Skilled Worker Visa https://www.gov.uk/skilled-worker-visa
- Global Talent Visa

If you are a leader or potential leader in one of the following fields you may be eligible to apply for a Global Talent Visa:

- Academia or Research

- Arts and Culture
- Digital Technology

Please click the following link for further information and to check your eligibility for this visa. https://www.gov.uk/global-talent'

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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