



OPPORTUNITY

Where change
gets real.



Reference: R260045

Salary: £40,000 - £45,000 depending on experience and qualifications, with an additional £4,000 for the duration of the project for professional and personal development.

Contract Type: Fixed term (24 months)

Basis: Full time

Job description

This 24-month project takes the form of a [Knowledge Transfer Partnership](#) (KTP), which provides practical and formal training and the availability of support from experienced mentors from [ISTL](#), [Aston University](#) and [Innovate UK Business Connect](#).

Job Purpose:

The Knowledge Transfer Partnership (KTP) Associate will play a leading role in the development of innovative high-voltage fault-managed DC power systems for domestic and commercial applications. Working collaboratively with Aston University and the industry partner, the postholder will undertake research, design, development, testing and validation activities to create next-generation power distribution solutions that improve energy efficiency, reduce installation and operational costs, and support the transition from traditional AC to DC electrical systems.

The role will contribute to the delivery of the KTP project objectives, translating research and innovation into commercially viable technologies with the potential to transform power distribution for modern electronic loads.

Main responsibilities:

- To integrate new technical capabilities into a small agile company like ISTL and ensure that developments are well understood and embedded.
- To apply electrical/electronic design skills to create a prototype MIDPAS including circuit analysis, computer aided design and complex simulation tools, e.g. MATLAB/SPIICE/SIMULINK.
- To select an appropriate micro-controller (balancing performance and cost) and applying software development skills for compliant control systems.
- To project manage a complex, innovation-focused project to produce a commercially viable outcome.
- Ensure electronic solutions for measuring and detecting any electrical faults that fall within FMPS standard are implemented.
- To assimilate knowledge of high-speed, low-loss Gallium Nitride transistor technology and/or novel, multilevel converter circuits.

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.
- 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 PhD in Power Electronics or Master's with industrial experience.	Application form
Experience	Proficiency in the use of software tools such as PSCAD, Spice, and MATLAB/Simulink. Knowledge of the design, build, and testing of high-frequency DC-DC converters up to 800V. Technical capability in embedded control design using Digital Signal Processors (DSPs), microcontrollers, and/or Field Programmable Gate Arrays (FPGAs).	Application form and interview
Aptitude and skills	Project management skills. Strong interpersonal, communication, and presentation skills. Ability to work effectively with stakeholders and within cross-disciplinary teams. Leadership qualities and professional maturity. Strong organisational, time management, and project management skills. Ability to work independently, as well as collaboratively within a team, using initiative where appropriate. Highly motivated, adaptable, and able to deliver agreed objectives and milestones. Commitment to continuous professional development and innovation, including the adoption of new technologies and data processing methods.	Application form and interview

	Desirable	Method of assessment
Experience	Familiarity of domestic wiring regulations. Experience in the power electronic industry. Experience with Gallium Nitride (GaN) MOSFETs in switched-mode power supplies.	Application form and interview
Aptitude and Skills	Outstanding communication and soft skills to maintain a meaningful dialogue between stakeholders including end users and clients.	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: Andrew Cross

Email: a.cross1@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: 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**.

Please see UKVI guidance for further information on eligibility, knowledge of English requirements and approved test centres <https://www.gov.uk/skilled-worker-visa> You can also find further information on our candidate immigration [web 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 our candidate immigration [web page](#) for further details.

Before you start and Right to Work

Right to Work Check

All employees must complete a Right to Work check before they commence work at Aston. HR will contact you during the onboarding process to arrange your check.

Cost of Living - Estate and Letting Agents

There are numerous Estate and Letting Agents that can help you find suitable accommodation. Useful websites for support and guidance

<https://www.gov.uk/government/publications/how-to-rent/how-to-rent-the-checklist-for-renting-in-england> and <https://www.citizensadvice.org.uk/housing/>

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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