



**OPPORTUNITY**

Where change  
gets real.



**Reference: 0404-24**

**Salary: Up to £35,000 per annum depending on experience with up to £5,500 dedicated development and training budget**

**Contract Type: Fixed Term (33 months)**

**Basis: Full Time**

## Job description

This 33-month project takes the form of a [Knowledge Transfer Partnership](#) (KTP), which provides you with practical and formal training and the availability of support from experienced mentors from [CNC Group Holdings Ltd](#), [Aston University](#) and [Innovate UK](#).

### Job Purpose:

The proposed project envisages the development of a transformative "Digital Demolition" platform incorporating 3D scanning, artificial intelligence, and remote-control equipment enabling demolition to be pre-programmed, predictable, data-driven, and simulated in a virtual environment eliminating worker's exposure to dangerous environments.

Colemans is battling industry-wide safety hazards and inefficiency and recognises the urgent need for change. The "Digital Demolition" KTP directly addresses these challenges. The KTP will utilise simulation, modelling, AI and remote-controlled machinery to minimise human exposure to demolition hazards, thus reducing hazards to workers' safety. It will also optimise techniques to tackle rising costs and waste to maximise resource utilisation and financial efficiency.

The KTP will deliver the required capabilities to empower Colemans with AI for material assessments and remote equipment control, digitalisation for revolutionised planning and data management, and circular economy practices for sustainable material reuse.

Apart from technical skills, as a KTP Associate you will also develop a broad set of skills in project management, stakeholder engagement, and involvement in the delivery of a strategic project in an innovative business. The skills developed during the project will enable you to broaden your future career opportunities.

**Candidate Profile:** First degree (high level 2.1 or above) in either Civil Engineering, Surveying, Architecture and Built Environment

### Skills/ experience:

- ▶ Knowledge/ experience of BIM and its application.
- ▶ Knowledge of key software packages to develop the 3 D model and 4 D simulation e.g., Autodesk Recap/Revit, Navisworks, MS Project, Bentley Synchro 4D pro.
- ▶ Object-oriented programming in Python, C++, or C#.
- ▶ Experience/ knowledge of machine learning algorithms, or the desire to upskill in this area.
- ▶ Knowledge of the virtual reality technology and integration.

### Main duties and Responsibilities

- ▶ "Scan-to-BIM" creating virtual demolition simulations.
- ▶ Machine learning to assess materials, their re-use and suggest optimal techniques.
- ▶ "Digital Control" to empower machines with sensors and remote operation, ensuring precision and safety.

### 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>	A first degree (or equivalent) level 2.1 or above in either Civil Engineering, Surveying, Architecture and Built Environment.	Application form
<b>Experience</b>	Experience/ knowledge of machine learning algorithms, or the desire to upskill in this area.	Application form and interview
<b>Aptitude and skills</b>	<p>Knowledge/ experience of BIM and its application.</p> <p>Knowledge of key software packages to develop the 3 D model and 4 D simulation e.g., Autodesk Recap/Revit, Navisworks, MS Project, Bentley Synchro 4D pro.</p> <p>Object-oriented programming in Python, C++ or C#.</p> <p>Knowledge of the virtual reality technology and integration.</p>	Application form and interview
	Desirable	Method of assessment
<b>Education and qualifications</b>	Master's specialisation in a Mathematics or Computer Science related discipline.	Application form
<b>Experience</b>	Industry experience in either Civil Engineering, Surveying, Architecture and Built Environment.	Application form and interview



## Contact information

### Enquiries about the vacancy:

Name: Kenneth Park

Job Title: Reader

Email: [k.park@aston.ac.uk](mailto:k.park@aston.ac.uk)

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

Recruitment Team via [recruitment@aston.ac.uk](mailto: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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