

## Knowledge Transfer Partnerships

A Knowledge Transfer Partnership (KTP) is a three-way project between a graduate, an organisation and a university.

KTP is one of the largest graduate recruitment programmes across the UK, placing graduates (KTP Associates), to work on challenging, high profile projects.

As a KTP Associate you can expect to:

- 🌀 Accelerate your career
- 🌀 Gain valuable experience and marketable, highly transferable skills
- 🌀 Earn a competitive salary
- 🌀 Receive practical and formal management training and development
- 🌀 Opportunity for further qualifications
- 🌀 Enjoy an excellent chance of a permanent post with the company

Further information about KTP can be found at: [www.ktponline.org.uk](http://www.ktponline.org.uk)

## KTP Research Associate: Dynamic Optimisation & Deep Learning for Intelligent Manufacturing with Zenzero Solutions

**Salary: £26 to 30K dependent on experience**  
(plus £5000 individual training budget)  
**This is a 30 month Fixed Term Contract**

This KTP project offers a fantastic opportunity for an ambitious PhD qualified graduate to undertake cutting edge industrially relevant research in optimisation and machine learning, leading to high economic and scientific impact. It is an ideal platform to further develop a research profile, launch a career in industry and benefit from the support of company and academic mentors.

Zenzero Solutions Limited have been trading since 2004 and operate out of their offices in Warwick and Chelmsford. The company has extensive experience of providing professional, tailored IT products, services and support to large, small and medium sized businesses.

Aston University is collaborating with Zenzero on this project to carry out fundamental and applied research in dynamic optimisation and machine learning. The output will be used in an intelligent software tool for determining 3D cutting solutions for high value materials, to improve utilisation of equipment and produce high quality management information.

We are looking for confident, credible and personable candidates with good interpersonal skills to work within Zenzero's team and with its collaborators and clients. You should be a self-starter with the ability to show high levels of initiative and motivation and the ability to work autonomously to agreed targets and goals. You should be able to articulate ideas, effectively interpret user requirements and have good presentation skills with a strong problem-solving ability.

You will need a PhD in Computer Science or a related field, with a focus on optimisation and/or machine learning, and a 2.1 minimum degree in an appropriate subject at Bachelor's level. You should have hands on experience of the design and statistical evaluation of algorithms for solving computationally hard problems (e.g. combinatorial optimisation problems). Knowledge/ experience of application of mixed integer programming, evolutionary algorithms and other meta-heuristics would be preferable. In addition, knowledge of machine learning algorithms in general, and recent advances in deep learning in particular would be welcomed. You will work in a project team with Dr. Peter Lewis and Dr. George Vogiatzis at Aston, and software developers and senior management at Zenzero.

As part of this project you will be able to develop your managerial skills including your ability to develop and deliver training, communicate effectively as you present to colleagues and customers, and develop your project and financial management skills. You will also further develop your research and technical skills, including algorithm development for complex problems, meta-heuristics and deep neural networks. You will be expected to publish results as appropriate in high quality international journals and conferences.

The KTP Associate Development Programme will give you the management skills required to successfully deliver the project. You will have a generous personal development budget to cover conference attendance, further technical and industrial training. You will be employed by Aston University and be expected to engage with Aston's research community, but will be based primarily at the company, Zenzero Solutions in Warwick.

**Closing date: TBC**  
**Interviews planned for TBC**

For more information, a full job description and to apply online please visit:  
<http://jobs.aston.ac.uk/>