## University of Bath KTP Programme

**Ashridge Engineering Ltd**

**KTP SMART METERING PROJECT ENGINEER –**

**KTP Associate**

## The Company

Ashridge Engineering Ltd is a UK SME with 35 years’ experience designing and manufacturing control, protection and measurement equipment for a diverse range of industries, primarily within the water and electrical supply industry sectors. Over this time, the company has become renowned for the highest level of customer service and the provision of quality and reliable products.  Heavily investing in Research & Development and working closely with academia has enabled them to lead the way with innovative products, incorporating new technologies and sophisticated algorithms and techniques.

<http://www.ash-eng.com/>

**What is a KTP?**

Knowledge Transfer Partnership (KTP), a government funded scheme brings together universities and businesses to work jointly on a development project that is strategically important to the future of an organisation. Throughout the project the KTP Associate will play a key role in managing and implementing strategic development in the business and transferring knowledge between the University and the Company.

**Partnership rationale**

This important and challenging three-year Knowledge Transfer Partnership (KTP) is between Ashridge Engineering Ltd and the Department of Electronic and Electrical Engineering at the University of Bath. The aim of this exciting role is for an aspiring electronics hardware and embedded device engineer to develop and bring to market a revolutionary waste water Smart Meter that will measure and analyse flow rate and properties of constituent materials flowing in sewage or grey water discharge pipes.

The role is full-time and will be based in Ashridge Engineering Ltd premises at Okehampton, a small market town in Devon with limited public transport so own transport may be required. Throughout the project the KTP Associate will play a key role in managing and implementing strategic development in the business and transferring knowledge between the University and the business.

**Partnership objectives**

The creation of a unique low cost waste water Smart Meter is a key strategic product investment to achieve the growth of the Company and aims to allow Ashridge's utility customers unrivalled visibility of their waste water networks and contribute to lower delivery and maintenance costs.

The techniques required to image pipes of differing degrees of fill, with different flow constituents including solids and liquids of variable conductivity are exceedingly challenging to implement. The Partnership seeks to transfer the academic and laboratory knowledge base and together develop long life, low cost, industrial products.

## Partnership management

The KTP Project is delivered by an Associate and is managed through the Local Management Committee (LMC). This is chaired by the senior company executive and comprises the Company and Academic leaders/supervisors and a KTP Advisor (Innovate UK representative). The LMC meets every four months and is responsible for programme direction, ensuring that all parties gain maximum benefit and for authorising expenditure. Associates are expected to prepare an executive summary, to report on progress for the LMC meeting and this must be circulated in advance to LMC members. They are also expected to make a formal presentation on some aspects of their work at this meeting.

The academic knowledge will be provided by Dr Manuchehr Soleimani from the University of Bath’s Department of Electronic and Electrical Engineering, an expert in tomographic imaging. Dr Soleimani established the University’s Engineering Tomography Lab (ETL) in 2011, which since then has attracted over £2m of research and industrial funding for tomographic imaging research.

A monthly progress meeting is held with the Company and Academic Supervisors. The Associate is expected to arrange and document these meetings. The Associate is required to maintain a log of the tangible benefits of the project and to provide internal seminars for other members of University and Company staff, based on knowledge acquired through attendance at courses and conferences.

**The ideal candidate will:**

* Have a PhD, or Master's degree with an equivalent level of experience in one of these areas: Electronic and Electrical Engineering, Computer Science or Physics.
* Have experience and proficiency designing, implementing, and debugging digital systems implemented around embedded processors or microcontrollers.
* Have practical experience of having adapted complex algorithms into a form suitable for efficient execution on embedded devices.
* Demonstrate knowledge and experience of signal processing techniques and algorithms, ideally relevant to image or video applications.
* Have knowledge of scientific programming language skills (e.g. Matlab or R).
* Demonstrate the ability to use project management principles and techniques to schedule the delivery of a multi-party product design (including working with sub-contractors).
* Be a very strong communicator, and demonstrate the ability to work with both the academic supervisor as well as with industrial colleagues and supervisors.

***KTP Associate – The benefits***

* Accelerate your career
* Gain valuable experience and marketable, highly transferable skills
* Take early responsibility for a high profile project
* Receive mentoring from the company and an experienced academic team
* Opportunity to gain a professional qualification
* Receive practical and formal management training and development
* Enjoy an excellent chance of a permanent post with the company

It is essential that you understand how KTP works with business and the University, and the vital role you will play if you successfully secure a KTP Associate position. Further information about KTPs and the advantages of being a KTP Associate can be found at <http://ktp.innovateuk.org/>

## Associate’s expectation

The Associate will have the opportunity to pursue another higher degree as a member of staff of the University. Bath provides an MPhil in Knowledge Transfer specifically for KTP Associates. The Associate will be encouraged to gain membership of a relevant professional body to enable them to work towards Chartered status. They may undertake several selected course activities as well as general courses at the University as a member of staff.

Within the limits of commercial confidentiality, the Associate will have the opportunity to deliver papers at conferences and will be expected to co-author articles.

On successful completion of the project, it is likely that the Associate will be offered a permanent position with the Company. However, if due to unforeseen circumstances this is not possible, the Associate will still have acquired invaluable commercial experience through close involvement with the senior management of the Company. Experience of project management will be gained, as well as knowledge of the daily running of a successful business.

**Salary and conditions of employment**

The post is fixed term for the duration of 36 months.

The salary is £25,000 - £28,500 pa depending on qualifications and experience and the reward package includes a pension contribution and separate £6,000 personal training and development budget.

The Associate will be appointed by the University as a member of staff with the Department of Electronic and Electrical Engineering, responsible to the appointed academic supervisor. The contract of employment is for 36 months. There is a probationary period of six months, during which time the contract may be terminated by either side with one month’s notice. Thereafter, the required notice period to be given by either side is three months. The University requires a mid-probationary report after three months and a full probationary report at six months.

In other respects the Associate will be treated as a Company employee and works full-time at the Company’s premises at Okehampton in Devon. Okehampton is a small market town 23 miles from Exeter, with limited public transport therefore the Associate may need to have their own transport. The project may require some periods of time to be spent at the University and could involve overseas travel. The conditions of work, including work hours and holiday entitlement, will be those applying to Company employees. An annual appraisal is carried out with the Academic and Company Supervisors. This is used to identify the Associate’s training requirements in relation to programme tasks and their personal development plan.

Whilst there is no commitment on the Company to retain the Associate at the end of the programme, it is expected that the Associate will be made aware of future prospects at their annual appraisal. KTP appointments cannot normally be extended beyond the end of the project.

***It should be noted that this KTP Associate post entails the development and application of knowledge for commercial outcome and that the Associate will be embedded in the company for the KTP duration. It is technology transfer focussed and not suitable for candidates primarily seeking an academic research or teaching career within the University.***