## University of Bath KTP Programme

**Pall Europe Ltd**

## The Company

Pall Europe Ltd is a world leader in the design and manufacture of high quality filters. Pall Europe Ltd has a number of manufacturing units at various locations including four UK operations in Portsmouth, Newquay, Redruth and Ilfracombe. Pall Europe is part of the Pall Corporation that is based in Washington and has annual sales of $2.6 billion.

The job will be mainly based in the Company’s modern factory at Ilfracombe in Devon which employs 500 personnel. The factory manufactures a diverse range of filters for Pharmaceutical, Food and Beverage and Industrial processes.

**Partnership rationale**This 16 month Knowledge Transfer Partnership (KTP) between Pall Europe Ltd and the University of Bath is to develop an innovative leak detection system for fault analysis and develop this into an automated process for non-destructive inspection of pharmaceutical filters during manufacture.

**Partnership objectives**

Pall has been manufacturing and testing filters for many years and would like to find a method of improving the testing of filters both on and off line. Additionally, improving methods of non destructive evaluation (NDE) and testing for assessing failed components. This project hopes to address this by;

* Establishing the technical requirement for leak detection of filter products with reference to both quality control and production.
* Carrying out a detailed assessment of technologies available which could provide technical solutions for leak detection.
* Developing a series of specifications of requirements for both on line and off line solutions to include qualitative, quantitative and pass/fail criteria.
* Performing detailed research on the capability of each technologyand making a decision on the appropriate technology approach.
* Undertaking trials for validation of the most appropriate approach and evaluating model defects in filter media providing a written process for technology adoption.
* Approving and developing the laboratory test machine in stages.
* Starting staged detail development of the production test machine confirming the viability and justification for the technique.
* Running trials and progress development by establishing a full off-line test and confirming effective performance of the new leak test.
* Justifying cost of development of the on-line test machine for production
* Completing documented processes for using the new technology as a replacement for the traditional method and adopting the process for technology assessment.
* Rolling out implementation of the production unit and embedding the new NDE approach by preparing an impact report.

## 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 (Technology Strategy Board 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.

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.

## Associate profile

A 1st , 2.1 or higher degree in Mechanical Engineering is essential. Specialisation in NDE, materials or machine design is also essential. You will be expected to have a minimum of 12 months industrial experience, ideally more, especially in the field of NDE. Some design experience in an engineering and industrial setting is highly desirable as is some technical and hands on workshop or laboratory experience.

You should be a clear thinking individual with an analytical and scientific approach. You should have a constructive attitude to problem solving and enjoy technical challenges. You must also be able to demonstrate that you have a persuasive, non-confrontational but confident personal communication style.

## Associate’s expectation

The Associate may have the opportunity to pursue a higher degree as a member of staff of the University. Bath provides an MPhil in Knowledge Transfer specifically for KTP Associates, or another higher degree offered by the Department of Mechanical Engineering may be appropriate.

The Associate will be encouraged to gain membership of a relevant professional body such as the IMechE to enable them to work towards Chartered status. They may undertake several selected course activities on manufacturing 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 gained:

* Experience interacting with senior engineers and management on a strategic project.
* Management of a substantial change programme in a large scale manufacturing environment.
* Development of analytical skills in dealing with new technologies, particularly NDE.
* Hands on experience in a production environment and development of inter-personal skills in supervision, negotiation and leadership.
* Familiarity with a variety of engineering technologies.
* Expertise in NDE and implementation of NDE technology in production.
* Experience of the interface between design and manufacturing.

**Salary and conditions of employment**

The salary range is from £22,000 up to £26,000 pa depending on qualifications and experience and the reward package includes a pension contribution and separate £2,670 personal training and development budget.

The Associate will be appointed by the University as a member of staff with the Department of Mechanical Engineering, responsible to the appointed academic supervisor. The contract of employment is for 16 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. Work will be split between the University and the Company as appropriate for the specific activities. The conditions of work, including work hours and holiday entitlement, will be those applying to Company employees. An appraisal is carried out at six months 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. There will be a further appraisal at 12 months.

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.