Knowledge Transfer Partnerships

Image acquisition expertise brings pioneering product to offshore market

Company name:	Rivertrace Engineering
Location:	Redhill
Employees:	25
Project length:	2 years
University school:	School of Environment & Technology and the School of Computing, Engineering & Mathematics
Result:	Auto-cleaning photo-optical oil-in-water particulate monitor developed

The Challenge

Rivertrace Engineering has over 30 years experience of oil-in-water monitoring and an ongoing commitment to development which ensures their products remain at the forefront of technology. Prior to partnering with the University of Brighton, the operating range of their technology was not able to accurately detect and discriminate between a range of water contaminants, and the company wanted to develop a product which would allow them to do so, in order to maintain a competitive edge in the offshore market.

The Solution

Through their KTP, Rivertrace teamed up with University of Brighton academics Dr Graeme Awcock and Dr Cyril Crua who offered a wealth of technological expertise in image acquisition and processing to the project. After appointing a graduate with experience in optical diagnostics, the team used a test rig at the University of Brighton to experiment with novel photo-optical techniques for measuring oil in water samples.

Experimental work determined that combining microscopic and image analysis techniques optimised performance. Based on the test rig, a working prototype was developed, and ultimately the Smart PFM 107 Oil-in-Water Monitor was launched by the Company. This is a cutting-edge system capable of measuring particles in the range 0-500 microns in a continuous sample stream, whilst differentiating between oil, gas/air bubbles and solids. To maintain accuracy at all times, the measurement cell automatically senses contamination of its optics and initiates cleaning.

The Benefits

Beyond the launch of the core product, the development of this leading edge technology has generated various spin-off products which will support the company in achieving higher ranking positions in both existing and new markets. The project has created enthusiasm in the company for research into new technology and applications. Furthermore, in-house expertise developed as part of the project will continue to reduce product costs post-project.

This project offered academics from two different schools the opportunity to work together exploring new areas of image acquisition and analysis technology and developing a deeper understanding of optical measurement in a commercial context.

Smart PFM 107 Oil-in-Water Monitor has type approval certification and is available now from **www.rivertrace.com**

Find out what KTP can do for you

You can find out more about what a Knowledge Transfer Partnership with the University of Brighton can do for you at **www.brighton.ac.uk/ktp**, or you can email **ktp@brighton.ac.uk** or call **01273 642426** to speak to one of the team.

University of Brighton

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