

# New technology means improved safety for radiation workers

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The University of Reading has played a leading role in the development of new technology that will reduce health risks for those working in jobs where there is a danger of radiation exposure.

Through a Knowledge Transfer Partnership (KTP), University of Reading graduate Chris Fifield was successfully appointed as the KTP Associate on the Safe Training Systems Ltd (STS) KTP project. Chris's brief was to develop [new technology](#) to make Radiation Training Instrumentation more realistic. These instruments behave like a typical Geiger counter in the presence of radioactive material, but during training no radioactive material is used.

STS, based in Wokingham, develop and manufacture simulated instruments for training personnel who may encounter ionising radiation, either in the workplace or when attending an incident. Although highly successful, part of the company's product range was in need of updating to satisfy the needs of customers and to stay ahead of competitors. One of the key challenges faced was simulating realistic radiation fields in the environment.

However Chris, who has been offered a full-time

role with STS, developed a new simulation system that uses an isotropic field pattern which mimics ionising radiation conditions very accurately. This gives Radiological Protection Advisors and supervisors the ability to teach their [trainees](#) with more [realism](#) than ever before.

"The project exceeded all expectations," said Jim Ward, STS's Operations Manager and Company Supervisor on the KTP project. "In collaboration with Chris, a family of four instruments, utilising the same technology, have been developed. The company has been delighted with the products which are now on sale in the UK, with launches in Europe later this year and scheduled to launch in the USA in 2014. However the real bonus to the company has been Chris accepting the position of our Technical Manager and the additional in-house skill base that he brings with him."

Chris Fifield, who graduated with a Masters of Physics in 2010, said: "My KTP project gave me the necessary skills and experience to bridge the gap between an academic and commercial environment. With the support of the Knowledge Transfer Centre, my senior academics and the host company, Safe Training System Ltd, I was able to successfully design a new range of instrumentation, through concept to production. I learnt and developed a wide variety of skills that I never knew I had, and am now employed full time by the company. A hugely valuable experience."

Knowledge Transfer Partnerships (KTP) are part of the Government's leading knowledge and technology transfer scheme, allowing businesses to access expertise available at universities. Businesses can then undertake strategically important projects such as new product development, internal improvements or developing business strategies.

Dr Susan Matos, Head of Knowledge Transfer Programmes at the University of Reading, said: "I

am delighted at the success of our partnership with STS. It highlights the key contribution our expertise, cutting-edge facilities and highly-skilled graduates can make to industry in the local area and throughout the UK."

Provided by University of Reading

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