Partners

SEFtec and the Irish Naval Service

Are your trainees on the right track?
iTracker™ monitors training using a 3D game engine for advanced visualisation technology.

The Need

The need was driven by a requirement to improve the safety of students and instructors in Fire Fighting and Damage Control simulators. High risk occupations have very little opportunity to test and experience new equipment in a training setting. They need a suitable training environment in which to test and practice the new and advancing equipment.

The Solution

Through effective collaboration at various and interlinking stages, the partners involved came up with the iTracker™.
The iTracker™ uses a combination of advanced machine learning, image processing and visualisation technology to track and monitor the activities and progress of trainees including their temperature, heart rate and last known positions. This is all displayed in real time 3D.
The input of the three organisations ensured the technology took advantage of cutting edge research knowledge mapped to real practice-based environments. CIT's TEC Centre developed a heterogeneous multi-sensor system (pictured overleaf) with data capture, storage and processing capabilities.
The testing of the system took place at a custom built facility in The Nimbus Centre, in CIT, followed by more

thorough testing by SEFtec. The input of the Irish Naval Service, completed the development process through the comprehensive trialling of the system.

Critical Success Factors

The most critical success factor was the fact that the team had access to those who had knowledge and experience of working in extreme environments, such as low or non-existent lighting levels, smoke, elevated temperatures, flood water and high humidity.
The ability to learn from, and interact with, these knowledgeable and experienced individuals helped to enhance and accelerate the completion of the project.

Benefits of the Engagement

The key benefit arising from this project was the formation of a multi-disciplinary team encompassing skills in the areas of electronic engineering, computing & multi-media. This newly formed team is perfectly suited to solve problems as they arise in the future.
In addition, SEFtec in particular, have identified a significant market opportunity for smart fire training systems which they are currently pursuing through further collaboration with TEC centre and The National Maritime College of Ireland (NMCI).
TEC Centre and NMCI are currently assisting SEFTec in developing and validating these systems.

"This collaboration facilitated the exchange and transfer of knowledge between parties. CIT benefited from gaining experience in developing commercial solutions, whilst, SEFtec gained exclusive access to the technology."

Paul Walsh,
Rubicon Centre

"The technology developed and tested to date will represent a major step forward for both the quality of training delivered and the safety of the trainees and instructors in what traditionally has been a low tech and relatively high risk training environment. SEFtec believe that this will represent a real commercial opportunity and that a market exists for this technology."

Darren O'Sullivan,
Director, SEFtec

Contact us to connect your Enterprise with CIT.

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