EXCELLENCE IN VR HEALTHCARE TECHNOLOGY

University of Birmingham Human Interface Technologies Team

Professor Robert Stone
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For over 30 years, Professor Robert ("Bob") Stone has been one of the foremost global experts in the field of virtual reality (VR) technology. Involved with cutting-edge innovations as early as the 1980s (when he was the first European to experience the NASA View VR system), Stone has promoted excellence in the field of VR on both a domestic and international level. He has also earned recognition from bodies such as the South Russia State Technical University (Novocherkassk) – where he is an honorary professor – and involved himself with the application of VR technologies into a variety of industries and fields including healthcare, defence, heritage and education. This immense recognition factored heavily into the decision of the Medical LiveWire judging panel, Stone having proven himself as an invaluable asset for the research and development of new VR technologies and applications. Combining both commercial and academic pursuits, we found Stone to be a strong example of an innovator excelling in the field, his passion allowing him to work on projects both at home and abroad. The list of leading developments which can be attributed to Stone is astounding.

The Medical LiveWire judging panel were particularly impressed with the extensive list of 'firsts' which can be attributed to the professor, including (but not limited to); the first tactile feedback glove for VR applications (Teletact) and the world's first industrial collaborative project to address the commercial uses of VR. In direct relation to medicine, Stone would prove to be a revolutionising force in the 1990s, his pioneering surgical task analysis efforts leading to the development of a suite of simulated perceptual-motor tasks for a unique keyhole surgery VR trainer (MIST).

Today, Stone continues to exhibit an immense dedication to the development of new talent and innovation within the field. His current research projects range from the development of new VR concepts for the post-operative rehabilitation of patients in Intensive Care to the development of a unique, reconfigurable "Mixed Reality" concept to help train future defence paramedics to become effective members of Medical Emergency Response Teams. Directing his Human Interface Technologies (HIT) team at the University of Birmingham, Stone continues to pioneer the application of Human Factors knowledge to the design of advanced interactive systems (particularly in the medical and defence sectors), helping to ensure that those systems take into account the capabilities and limitations of their end users. This helps to ensure that the technology-based training solutions that are delivered are fit for human use and based only on appropriate hardware and software, as opposed to being yet another example of a "high-tech system for the sake of high-tech".

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