IEEE VGTC Virtual Reality Technical Achievement Award 2008

The 2008 Virtual Reality Technical Achievement Award goes to Bernd Fröhlich of Bauhaus-Universität Weimar, Germany, in recognition of his contributions to interactive devices and displays for VR. The IEEE VGTC is pleased to award Bernd Fröhlich the 2008 Virtual Reality Technical Achievement Award.

Bernd Fröhlich

Bauhaus-Universität Weimar

IEEE VGTC Virtual Reality Technical Achievement Award Recipient 2008

Biography

Bernd Fröhlich is Professor of Media Systems at the Bauhaus-Universität Weimar, Germany, where he heads the Virtual Reality Systems Group. He received his M.Sc. and PhD degrees in Computer Science from the Technical University of Braunschweig in 1988 and 1992, respectively.

Bernd's PhD research focused on ray tracing using bundles of rays, which has since become a hot topic in the field. In 1993, Bernd joined Wolfgang Krüger's viswiz group at the German National Centre for Information Technology (GMD), where he first saw a stereoscopically displayed cube on a rear-projected table-top display. Fascinated by this technology, he began working on the development of the rendering framework, interaction techniques and hardware setup of what became known as the Responsive Workbench. In 1995 he was fortunate enough to be invited by Pat Hanrahan to join the Stanford Computer Graphics group as a Research Associate. At Stanford Bernd worked with Pat, Maneesh Agrawala and Andrew Beers on two-handed interfaces (with Larry Cutler), on the Two-User Responsive Workbench (with Ian McDowall, Mark Bolas, Oliver Riedel), an interactive 4D CAD system (with Martin Fischer), and physically-based interaction (with Henrik Tramberend).

In autumn 1997 Bernd returned to Germany to join the virtual environments group at GMD led by Martin Göbel. In 1998 he took over the lead of a new project with the VRGeo consortium developing VR technology and interactive visualization techniques for the oil and gas industry. The project is ongoing and celebrates its 10th anniversary in 2008. Among his most prominent research results are the Cubic Mouse, Octreemizer and Multi-Volume Rendering Techniques – all undertaken together with John Plate.

In 2001, Bernd joined the Media Faculty at Bauhaus-Universität Weimar, where he became chair of the first German professorship dedicated to Virtual Reality Systems. Since then his group (Jan Hochstrate, Christopher Lux, Alexander Kulik, André Kunert, Jan P. Springer) and his students have worked on a number of exciting projects including the Virtual Showcase (with Oliver Bimber), the Yoyo (with Andreas Simon), Multi-Viewer Stereo Displays (with Roland Blach, Matthias Bues), pseudo-physical interaction (with Mathias Möhring), the GlobeFish (with Anke Huckauf), and the Two-User Seating Buck (with Holger Salzmann). Over the past 10 years Bernd has been a member of many programme committees in the VR/AR domain. He served as a programme co-chair for IEEE VR in 2003, 2005 and 2006 as well as a general co-chair for IPT/EGVE in 2001 and 2007. His group hosted the IPT/EGVE event in 2007 in Weimar. He is also a co-initiator of the 3DUI symposium series and has served as a co-chair for the preceding 3DUI and "Beyond Wand and Glove-based Interaction" workshops as well as the first 3DUI symposium. He is a member of the European Network of Excellence INTUITON.

Bernd enjoys working with his students and colleagues on new algorithms, techniques and devices in the area of 2D and 3D interfaces, multi-viewer display technology, visualization and real-time rendering. He believes that virtual reality systems still have a long way to go until the many technological, perceptual and usability issues are resolved – a fascinating and worthwhile research challenge for many years to come.

Award Information

The IEEE VGTC Virtual Reality Technical Achievement Award was established in 2005. It is given every year to recognize an individual for a seminal technical achievement in virtual & augmented reality. VGTC members may nominate individuals for the Virtual Reality Technical Achievement Award by contacting the 2008 awards chair for virtual reality, Larry F. Hodges, at vgtc-vr-awards@computer.org.