



Presents the Spring 2014 EECS Seminar Series

Dr. Carolina Cruz-Neira
University of Louisiana at Lafayette

“The Next Stage for Virtual Reality: an Evolutionary Look”
Tuesday, February 4, 2014 • 1:30 p.m. • HEC 101

The evolution of Virtual Reality has been marked by its impact in a wide range of emerging fields such as augmented reality, video gaming, mobile technologies, training, and many of the extensive range of interactive applications we have available today. And, as it has evolved in the past 20 years, it has now become a powerful catalyst between innovative applications of emerging technologies and a myriad of disciplines. The exciting aspect of virtual reality today is that it still is true to its roots of creating useful, engaging, and ingenious experiences to support all aspects of human life. It continues captivating the interest and imagination of researchers, technologies and the general public.

This presentation covers the work of Dr. Cruz since her early days with the CAVE and her work's evolution in parallel with the field of virtual reality and interactive technologies. She will discuss some of the most unexpected and unusual projects that led to even more unexpected and successful results and how this work has aligned with the trends in funding sources over the years. She will provide a glimpse into the next stage of the field and direction that provide extensive opportunities for new research adventures and exciting multi-disciplinary collaborations.

BIOGRAPHY

Dr. Carolina Cruz-Neira is the W. Hansen Hall and Mary Officer Hall/BORSF Endowed Super Chair in Telecommunications in Computer Engineering at the University of Louisiana at Lafayette. Dr. Cruz was the founding CEO of the Louisiana Immersive Technologies Enterprise, a Louisiana initiative to support economic development using immersive technologies.

Prior to being in Louisiana, Dr. Cruz was the Stanley Chair in Interdisciplinary Engineering and the Associate Director and co-founder of the Virtual Reality Applications Center at Iowa State University (ISU). In 2002, she founded and co-directed the Human-Computer Interaction graduate program at ISU. Dr. Cruz's work in VR started with her PhD dissertation, the design of the CAVE Virtual Reality Environment, the CAVE Library software specifications and implementation and preliminary research on CAVE-Supercomputing integration. She is known as the co-inventor of the CAVE and the original developer of the CAVELibs. Since then, her research is driven by providing applicability and simplicity to VR technology focusing on software engineering for VR, applications of VR technology and usability studies of virtual environments. She spearheaded the open-source VR API movement with the development of VR Juggler. She has chaired several international conferences, given over fifty keynote addresses, and participated in technology advisory task forces defining the research directions of her field.

Beyond her academic career, Dr. Cruz is a business entrepreneur. She co-founded Glass House Studio and Infiscape Corporation. She serves on many advisory boards, including Sensics Inc., Mersiv and Micoy. She received the 1999 Motorola VIP Software Engineer recognition, in June 2001 she received the Boeing A.D. Welliver Award, in 2002 she was inducted as Eminent Engineer by the Tau Beta Pi Honors Society, in 2003 she was inducted as a Computer Graphics Pioneer by the ACM SIGGRAPH organization, in 2007 she was the recipient of the Virtual Reality Technical Achievement Award from the IEEE Visualization and Graphics Technical Committee (VGTC). In 2009 she received the International Digital Media and the Arts Association Distinguished Career Award.

Dr. Cruz has a PhD in Electrical Engineering and Computer Science (EECS) from the University of Illinois at Chicago (UIC) (1995) and a master's degree in EECS at UIC (1991). She graduated cum laude in Systems Engineering at the Universidad Metropolitana at Caracas, Venezuela in 1987.