Keynote Lecture II

The Visual Brain: Biologically-Inspired Imaging and Vision

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Abstract

The brain is the most powerful image processing and computer vision system. It is therefore not surprising that much of the work in the areas of imaging and vision over the past several decades has been inspired by the brain. In this talk, we will discuss recent advances in the study of visualization in the brain and explore various influences of brain structure and function in imaging and vision.

Biography

Dan Schonfeld received the B.S. degree in Electrical Engineering and Computer Science from the University of California at Berkeley, and the M.S. and Ph.D. degrees in Electrical and Computer Engineering from The Johns Hopkins University, in 1986, 1988, and 1990, respectively. In 1990, he joined the University of Illinois at Chicago, where he is currently a Professor in the Departments of Electrical and Computer Engineering, Computer Science, and Bioengineering. Dr. Schonfeld has been elected University Scholar of the University of Illinois. He has authored over 200 technical papers in various journals and conferences. He was co-author of a paper that won the Best Paper Award at the ACM Multimedia Workshop on Advanced Video Streaming Techniques for Peer-to-Peer Networks and Social Networking 2010. He was also co-author of papers that won the Best Student Paper Awards in Visual Communication and Image Processing 2006 and IEEE International Conference on Image Processing 2006 and 2007. Dr. Schonfeld has been elevated to the rank of Fellow of the IEEE “for contributions to image and video analysis.” He was also elevated to the rank of Fellow of the SPIE “for specific achievements in morphological image processing and video analysis.” He is currently serving as Deputy Editor-in-Chief of the IEEE Transactions on Circuits and Systems for Video Technology and Area Editor for Special Issues of the IEEE Signal Processing Magazine. His current research interests are in signal processing, image and video analysis, video retrieval and communications, multimedia systems, computer vision, medical imaging, and genomic signal processing.