

Computer Vision Technology for Applications to Assist Blind People

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Time: 2:00 pm, March 15 (Thursday), 2012
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Abstract:

Recent technology developments in computer vision, digital cameras, and portable computers make it possible to develop practical computer vision-based algorithms to help blind persons independently explore unfamiliar environments and improve the quality of their daily life. In this talk, I will introduce the research conducted in CCNY Media Lab for applying computer vision technologies to assist people who are visually impaired including indoor navigation and wayfinding, banknote recognition, and clothing pattern recognition.

Bio-sketch

Dr. Ying-Li Tian is an associate professor in the Department of Electrical Engineering at the City College of New York. She received her PhD from the Department of Electronic Engineering at the Chinese University of Hong Kong in 1996 and her BS and MS from TianJin University, China in 1987 and 1990. After she worked in National Laboratory of Pattern Recognition at the Chinese Academy of Sciences, Beijing, China, Dr. Tian joined the Robotics Institute in Carnegie Mellon University as a postdoctoral fellow in 1998. From 2001 to 2008, Dr. Tian was a research staff member at IBM T. J. Watson Research Center. She was one of the inventors of the IBM Smart Surveillance Solutions (SSS) product and was leading the video analytics team. She received several IBM Invention Achievement Awards and the IBM Outstanding Innovation Achievement Award due to her contributions to IBM SSS. Dr. Tian has published more than 100 papers in journals and conferences and has filed about 30 patents. Her current research focuses on a wide range of computer vision problems from motion detection and analysis, to human identification, facial expression analysis, and video surveillance. She is an area editor for Computer Vision and Image Understanding and a senior member of IEEE.