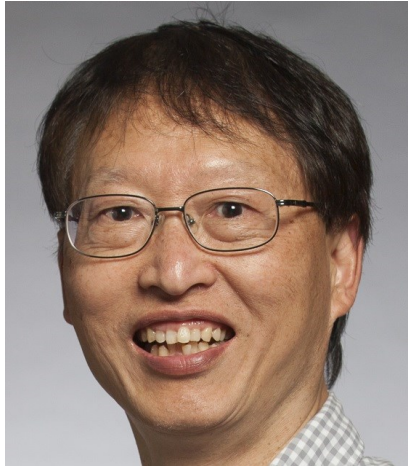


Coordinated Exploration of Big Visual Data for Smart City

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With the huge amount of networked video cameras installed everywhere nowadays, such as the statically deployed surveillance cameras or the constantly moving cameras on the vehicles or drones, there is an urgent need of systematic and coordinated exploration of the dynamic environment based on the collected big visual data from large scale of cameras, which can be exploited for various smart city applications. In this talk, I will first present an automated and robust human/vehicle tracking within a camera through self-calibration of static and moving cameras. These cameras are also continuously learning the temporal and color/texture appearance characteristics among one another in a fully unsupervised manner so that the object tracking across multiple cameras can be effectively integrated and reconstructed via the 3D open map service.



Short Biography: Dr. Jenq-Neng Hwang received the BS and MS degrees, both in electrical engineering from the National Taiwan University, Taipei, Taiwan, in 1981 and 1983 separately. He then received his Ph.D. degree from the University of Southern California. In the summer of 1989, Dr. Hwang joined the Department of Electrical Engineering of the University of Washington in Seattle, where he has been promoted to Full Professor since 1999. He served as the Associate Chair for Research from 2003 to 2005, and from 2011-2015. He is currently the Associate Chair for Global Affairs and International Development in the EE Department. He has written more than 300 journal, conference papers and book chapters in the areas of multimedia signal processing, and multimedia system integration and networking, including an authored textbook on "Multimedia Networking: from Theory to Practice," published by Cambridge University Press. Dr. Hwang has close working relationship with the industry on multimedia signal processing and multimedia networking.

Dr. Hwang received the 1995 IEEE Signal Processing Society's Best Journal Paper Award. He is a founding member of Multimedia Signal Processing Technical Committee of IEEE Signal Processing Society and was the Society's representative to IEEE Neural Network Council from 1996 to 2000. He is currently a member of Multimedia Technical Committee (MMTC) of IEEE Communication Society and also a member of Multimedia Signal Processing Technical Committee (MMSP TC) of IEEE Signal Processing Society. He served as associate editors for IEEE T-SP, T-NN and T-CSVT, T-IP and Signal Processing Magazine (SPM). He is currently on the editorial board of ZTE Communications, ETRI, IJDMB and JSPS journals. He served as the Program Co-Chair of IEEE ICME 2016 and was the Program Co-Chairs of ICASSP 1998 and ISCAS 2009. Dr. Hwang is a fellow of IEEE since 2001.