

电信研究院 2018 名家讲坛：

华盛顿大学黄正能（Jenq-Neng Hwang）教授学术报告会

题目：

面向智慧城市 3D 物理世界的协同视频挖掘（Coordinated Visual Mining of 3D Physical World for Smart City）

主讲嘉宾：IEEE Fellow、美国华盛顿大学 Jenq-Neng Hwang 教授

时间：2018 年 9 月 11 日（星期二）14:00-16:00

地点：逸夫楼学术报告厅

主办单位：电子信息与网络工程研究院、新一代信息网络与终端协同创新中心、重庆市电子学会

主持人：雒江涛 教授

报告摘要及主讲嘉宾简历

Title: Coordinated Visual Mining of 3D Physical World for Smart City

Abstract: With the huge amount of networked video cameras available 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 mining of the dynamic environment in the 3D physical world, so that the explored information can be exploited for various smart city applications, such as security surveillance, intelligent transportation, business statistics collection, health monitoring of communities, and etc. In this talk, I will first present an automated and robust human/vehicle tracking directly in 3D space through self-calibration of static and moving monocular cameras. These tracked objects locations and speed, as well as their poses, can all be described based on the GPS coordinates, so that the tracked objects from multiple cameras can then be easily exchanged, effectively integrated, as well as systematically reconstructed in the 3D real-world space for visualization and information sharing purposes.

Bio: 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 330 journal, conference papers and book chapters in the areas of machine learning, multimedia signal processing, and multimedia system integration and networking, including an author edtextbook 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 TCSVT, 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 ICASSP1998 and ISCAS 2009. Dr. Hwang is a fellow of IEEE since 2001.

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