清华信息大讲堂第 120 讲

讲演题目 （英文）	**Cognitive Networks/Dynamic Spectrum Access in Wireless　Networks: Overview**
讲 演 者	Zhensheng　Zhang，
讲演时间	2014 年 5 月 6 日星期二　上午 9:30-10:30
讲演地点	FIT 1-415
讲演摘要	Due to spectrum scarce, dynamic spectrum access (DSA) and cognitive radios/networks have been attracted a lot of research in the past decades. This talk presents a high level overview on the recent developments of the dynamical spectrum access techniques, covering a broad range of areas: motivations, standard activities, three models for dynamic spectrum access, characteristics of the available bandwidth of the primary users, sensing technologies and sensing intervals to detect white spaces/available spectrum, spectrum allocation and management algorithms (such as liner programming, graph coloring, game theory, machine learning), tradeoff between spectrum/performance gain versus additional overhead used in implementing DSA. A brief overview of the security issues associated with DSA networks and recent DARPA program related to dynamic spectrum access was also presented.
讲演者简介	Dr. Zhensheng　Zhang has over twenty years' experience in design and analysis of network architecture, protocols and control algorithms, with very strong backgrounds in performance analysis, modeling and simulation of the communication networks. He is currently visiting UCLA. He has worked at Cubic Corporation, Senior Principal Scientist, Networking Research and worked at Boeing as Principal Scientist, served as Principal Investigator for several Department of Defense projects. He also worked at Bell Laboratories, Lucent Technologies, and Columbia University, respectively, focusing on research and development in wireless networks. His research interests include wireless ad hoc networks, wireless sensor networks. He has published over 110 technical papers in IEEE Journals and key IEEE conferences (one of his papers was listed as the top 10 most reading articles from IEEE Communications Society website in 2007).　He was IEEE Comsoc distinguished lecturer (2010-2013) and has given many invited talks and tutorials on wireless ad hoc networks at various conferences and universities. He received the IEEE Regional/Area Outstanding Engineer award in 2011. He received his Ph. D. in Electrical Engineering from the University of California, Los Angeles (UCLA). Dr. Zhang severed as Editor of IEEE Transactions on Wireless Communications from 2002 to 2006. He served as the General Chair of Broadband Wireless Networking Symposium, October 2004. He was a Guest Editor for the IEEE JSAC special issue on Overlay Networks, 2003 and the Journal of Wireless Networks issue on multimedia wireless networks, August 1996. He is the Chapter Chair of IEEE Communication Society, San Diego, 2004-2013.　Dr. Zhang was the IEEE Globecom 2012 TPC Chair, and is currently serving as the IEEE ICC 2015 TPC Vice Chair and IEEE Globecom 2015 Vice Executive Chair.