



W OCC 2007

WIRELESS & OPTICAL COMMUNICATIONS CONFERENCE

The 16th Annual Wireless & Optical Communications Conference



April 27 - 28, 2007
Campus Center, NJIT, Newark, NJ
www.wocc.org

Conference Chair

Mary Chan

*President
Wireless Business Group
Alcatel-Lucent*



Mary Chan is the President of the Wireless Group of Alcatel-Lucent.

A veteran in the wireless industry, she is responsible for the development and delivery of current and next-generation wireless networking solutions and infrastructure for the world's leading service providers and enterprises.

Previously, Mary Chan was Vice President, Mobility Access Research and Development for Lucent Technologies, where she led a diverse global R&D organization with teams in the United States, Europe, China and India. Prior to that, Mary Chan was Director of Business and Financial Management for Lucent, responsible for financial and strategic business planning, operations, and bids and proposals.

Mary Chan holds B.S. and M.S. degrees in Electrical Engineering from Columbia University. She also has been named as one of the "Outstanding 50 Chinese Americans in Business" by the Asian American Business Development Center.

Conference Theme

Convergent Communications

The sixteenth Annual Wireless and Optical Communications Conference (WOCC) will bring together technical experts and business leaders from the North America and Pacific Rim to discuss multimedia, optical, and wireless communications technologies and business opportunities. The theme of WOCC 2007 is Convergent Communications over public mobile wireless networks, public fixed broadband wireline networks, and private customer premises networks. The integration of these three networks is the focus of a new next-generation network (NGN) providing convergent user-centric services that are no longer associated with the types of network access or content media. Instead, these convergent user-centric services will offer seamless delivery of multimedia applications including voice, data, image, and streaming video independent of any access technologies. The transport layer protocol is converging on Internet Protocol (IP) that propelled the growth of World Wide Web (WWW). The network and service providers will need to deploy standard-compliant converged networks and offer these new value-added services to save operational cost and grow their revenue. Convergent Communications can truly be considered as the enabler for the next phase of growth for the telecommunication industry.

Welcome Message

On behalf of the Wireless and Optical Communications Conference (WOCC) Organizing Committee, I welcome you to the 16th WOCC Conference. The scheduling of WOCC 2007 is quite timely, as we are at an important juncture in yet another telecommunications evolution. This one has the potential to significantly change, for the better, our every day life experiences, both on the job and with our families. It is also appropriate that it is held at the New Jersey Institute of Technology, a State University that is dedicated and focused on the key technologies that are influencing mankind's technological advancement.

The theme of this year's conference is *Convergent Communications*. We have gathered a group of elite industrial and academic experts from the tri-state and other regions to stimulate thought provoking discussions in wireless and optical communications and multimedia applications.

The conference is organized in 23 sessions. During the keynote and plenary sessions top executives from many companies and organizations will share their keen insight on the state of the industry. The 20 technical sessions are organized in such a way that engineers, professors and students can discuss their ideas in focused groups, reaching deeper into the technologies and the science which supports those technologies.

I hope that you will enjoy the conference's 2-day program, and also find time to explore the campus of NJIT as well.

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Qi Bi *Alcatel-Lucent*

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 Deyu Zhou *Opnext*

Keynote Speaker
Dr. Sandip Mukerjee

*VP, Wireless Business Group
Alcatel-Lucent*



BIOGRAPHY

Dr. Mukerjee is Vice President of Strategy and Chief Marketing Officer for the Wireless Business Group at Alcatel-Lucent. His responsibilities include identifying and developing strategic growth opportunities; ensuring cross-division portfolio and technology alignment; strategic marketing and communications. He also serves as the General Manager of Mobilitec, Inc. Mobilitec, an industry leader in Mobile Content Management and Delivery, was acquired by Alcatel-Lucent in November 2006. Sandip began his career at AT&T Bell Laboratories in 1991. Most recently, Dr. Mukerjee held the position of Vice President of Applications Solutions Strategy, Marketing & Business Development at Lucent Technologies. There, his team orchestrated Lucent's entry into the Content Management and Delivery and JAVA client businesses via inorganic and organic growth and investments.

Dr. Mukerjee serves on several industry boards, including the Cellular and Telecommunication Industries (CTIA) Wireless Internet Caucus.

Dr. Mukerjee has a Ph.D. in Electrical Engineering from the New Jersey Institute of Technology and holds several U. S. and International patents.

Keynote Speaker
Dr. Ed Tiedemann

*Senior VP of Engineering
Qualcomm Incorporated*



BIOGRAPHY

Dr. Edward G. Tiedemann, Jr. is a Senior Vice President of Engineering of QUALCOMM Incorporated. He leads QUALCOMM's worldwide standardization activities. Dr. Tiedemann was instrumental in the design and development of the TIA/EIA/IS-95 CDMA system, also called cdmaOne™. He led QUALCOMM's and much of the industry's efforts in the design and development of the third-generation cdma2000® system. Recently he has been focusing on the evolution of 3G systems, the next generation of WLAN, and the convergence of WLAN and WWAN. He is particularly interested in the implications of these changes for the wireless industry. Dr. Tiedemann chairs Working Group 3 of 3GPP2 TSG-C, which is responsible for the cdma2000® physical layer. Dr. Tiedemann holds over 100 US patents and has participated in over 40 papers, conference lectures, and industry panels.

Dr. Tiedemann holds the Ph.D. degree from MIT where he worked in the areas of queueing theory and communications networks. He holds the Master of Science degree from Purdue University where he worked on bandwidth efficient modulation. He also holds the Bachelor of Science degree from Virginia Polytechnic Institute and State University (Va Tech).

Dr. Tiedemann is past chairman on the advisory board of the College of Engineering at Virginia Polytechnic Institute and State University (Va Tech). He has received one of the Outstanding Electrical and Computer Engineer Awards that have been given by Purdue University. He is on the Board of Directors of the Open Mobile Alliance.



Conference Organizer

Dr. Qi Bi

*Bell Laboratories Fellow
Alcatel-Lucent*

BIOGRAPHY

Dr. Bi has his M.S. from Shanghai Jiao Tong University and Ph.D. from Pennsylvania State University. He joined Bell Laboratories in 1988. In 1995, he became a Distinguished Member of Technical Staff and two years later, he was promoted to Technical Manager.

Dr. Bi is a recognized expert in wireless communications. He received Awards of Excellence from the Advanced Technology Lab of AT&T in 1996 and 1997, and received Bell Labs President's Gold Awards in 2000 and 2002. Under his leadership, his team was recognized for its outstanding contributions in innovations and was awarded the Bell Labs Innovation Team Award in 2003. In 2004, he received the Speaker of the Year Award from the IEEE New Jersey Coast Section.

Based on his pioneering contributions in wireless communications, he broke new ground in 2003 becoming the first Chinese from mainland China since 1949 to receive the prestigious Bell Laboratories Fellow Award. In 2004, he was also recognized by the Chinese Institute of Engineers and was awarded the Asian American Engineer of the Year Award during Engineers Week in the United States.

Dr. Bi has published extensively in many technical journals and conferences and has served as editors in many technical publications. He was often invited as a keynote speaker in many international conferences and has filed more than 50 US patents. He was also the New York chapter president of the Alumni Association of the Chiao Tung University from 2002 to 2006. He has been listed in Who's Who since 2003.

Keynote Speaker
Dr. James Wei

*Former Dean
School of Engineering and Applied
Science, Princeton University*



BIOGRAPHY

Dr. Wei served as dean of Princeton’s School of Engineering and Applied Science from 1991 to 2002, after serving at MIT as the Department Head of Chemical Engineering and Warren K. Lewis Professor from 1977 to 1991.

Dr. Wei does research in catalysis and zeolites as it relates to environmental problems. Dr. Wei has published more than 100 articles, and has been editor of several books and journals. He is currently editor in chief of *Advances in Chemical Engineering*, a journal devoted to informing a general audience of major developments taking place in the field of chemical engineering. As an expert on the environmental impact of the chemical industry, he has participated in many governmental panels, such as the National Research Council. Dr. Wei has received numerous awards, and has been elected into the ranks of the National Academy of Engineering, American Academy of Arts and Sciences, and Academia Sinica.

Keynote Speaker
Dr. Sudhir Ahuja

*VP of Convergence
Bell Laboratories Research*



BIOGRAPHY

Dr. Ahuja is currently Vice President of the Convergence, Software, and Computer Science Laboratory and is leading and managing research in converged networks, services, speech recognition, text-to-speech coding techniques, video based communication and novel multimedia applications.

Sudhir R. Ahuja obtained his M.S. and Ph.D. degrees in electrical engineering from Rice University in 1974 and 1977, respectively. His undergraduate education was at the Indian Institute of Technology, Bombay, where he received the Presidents Gold Medal for outstanding academic performance in 1972. He has been with AT&T Bell Laboratories, Holmdel, NJ, from 1977 and continues to be with Bell Labs in Lucent Technologies in Murray Hill.

Dr. Ahuja is a Fellow of Bell Labs. He is currently an Associate Editor for the Transactions on Multimedia Communications and Applications for ACM. He has served as Chairman for the Multimedia Services and Terminals Committee of the IEEE Society, Area Editor for the IEEE Communications Committee and Editor for Transactions on Networking, a joint publication of IEEE and ACM. Associations and societies include IEEE, ACM, and Sigma Xi.

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- Photonics Society of Chinese Americans (PSC)

PROGRAM AT A GLANCE

Friday, April 27, 2007

08:00–17:00	Registration						
09:00–09:10	Opening Remarks: <u>Dr. Donald H. Sebastian, Senior VP for Research & Development, NJIT</u>						
09:10–10:30	Keynote Speakers: <u>Sandip Mukerjee, VP, Alcatel-Lucent</u> “The Future of Wireless Communications” <u>Ed Tiedemann, Senior VP, Qualcomm</u> “Wireless Communications: Perspectives on the State of the Technology and Where it Is Going”						
10:30–10:40	Break						
10:40–12:10	Plenary Session <u>Dave Wang, President, WANDL</u> “IP/MPLS Network Planning, Design, Simulation, Audit, and Management” <u>King L. Tai, Bell Labs Fellow & Chair of SyChip</u> “Opportunities and Challenges for Multimedia Communication” <u>Ken Kay, Chairman, Jumpstart NJ Angel Network</u> “Finding Startup Capital”						
12:10–13:40	Lunch						
13:40–15:20	WC1 Next Generation Wireless Communications I Chair: <u>Qinqing Zhang</u> Alcatel-Lucent	WC2 Wireless Fundamental Research Chair: <u>Jianghong Luo</u> Alcatel-Lucent	NS1 New Services and Challenges in a Converged Network Chair: <u>Carlos Urrutia-Valdes</u> Alcatel-Lucent	MM1 P2P Technology and Its Applications Chairs: <u>Yang Guo, Thomson</u> <u>Yong Liu, Polytechnic Univ</u>	OC1 Optical Network Architecture, Design, and Planning Chair: <u>Angela Chiu</u> AT&T	Poster Session	
15:20–15:40	Break						
15:40–17:20	WC3 Panel Session Mobile Applications Chair: <u>TC Chiang</u> TC Consulting Group	NS2 Network Reliability Chair: <u>Mohcene Mezhoudi</u> Alcatel-Lucent	NS3 Migration to NGN and Mobile Broadband Chair: <u>Amit Mukhopadhyay</u> Alcatel-Lucent	MM2 Multimedia Applications Chair: <u>Zhen Wen</u> IBM	OC2 Optical Communication Technologies Chair: <u>Xiang Liu</u> Alcatel-Lucent		

Exhibition

Saturday, April 28, 2007

08:00–17:00	Registration						
09:00–10:30	Keynote Speakers: <u>James Wei, Former Dean, Princeton University</u> “How To Be Successful In America” <u>Sudhir R. Ahuja, VP, Bell Labs, Alcatel-Lucent</u> “Multimedia Applications for a Converged World”						
10:30–10:40	Break						
10:40–12:10	Plenary Session <u>Aditya Gupta, VP, Anadigics</u> “Trends in Manufacturing Technology for Handset Power Amplifiers” <u>Anthony Pergola, Lowenstein Sandler PC</u> “Going Out on Your Own” <u>Wei Su, Senior Research Scientist, US Army</u> “Adaptive Demodulation Techniques for Next Generation Software Defined Radios”						
12:10–13:40	Lunch						
13:40–15:20	WC4 Wireless IC and SoC Design Chair: <u>Wei Luo</u> Broadcom	WC5 Sensor and Ad-Hoc Networks Chair: <u>Guling (Grace) Wang</u> NJIT	NS4 Network Planning, Design Methods and Tools Chair: <u>Ben Tang</u> Alcatel-Lucent	MM3 Multimedia Indexing and Analysis Chair: <u>Lexing Xie</u> IBM	OC3 Advanced Optoelectronic Components Chair: <u>Jian Jim Wang</u> NanoOpto Corporation	Poster Session	
15:20–15:40	Break						
15:40–17:20	WC6 Next Generation Wireless Communications II Chair: <u>Gang Li</u> Alcatel-Lucent	WC7 Mobile Networking and Security Chair: <u>Guangying Li</u> Alcatel-Lucent	NS5 Emerging and Innovative Technologies Chair: <u>Dong Sun</u> Alcatel-Lucent	MM4 Multimedia Content Analysis and Delivery Chair: <u>Rong Duan</u> AT&T	OC4 Optical Communication Components and Subsystems Chair: <u>Deyu Zhou</u> Opnext		

Exhibition

WC - Wireless & Mobile Communications

NS - Network Solutions

MM - Intelligent Multimedia

OC - Optical Communications

WOCC Technical Sessions – Friday, April 27, 2007, 13:40 – 15:20

<p>WC1 Next Generation Wireless Communications I</p> <p>Chair: Qinqing Zhang Alcatel-Lucent</p>	<p>WC2 Wireless Fundamental Researches</p> <p>Chair: Jianghong Luo Alcatel-Lucent</p>	<p>NS1 New Services and Challenges in a Converged Network</p> <p>Chair: Carlos Urrutia-Valdes Alcatel-Lucent</p>	<p>MM1 P2P Technology and Its Applications</p> <p>Chairs: Yang Guo, Thomson Yong Liu, Polytechnic Univ.</p>	<p>OC1 Optical Network Architecture, Design, and Planning</p> <p>Chair: Angela Chiu AT&T</p>
<p><i>Road to High Speed WLAN</i> <u>Xiaowen Wang</u> Agere</p> <p><i>WiMAX : The Path to the Mobile Internet</i> <u>Shupeng Li</u> Alcatel-Lucent</p> <p><i>Introduction to the New Generation WiFi Technology</i> <u>Lushen Ji</u> AT&T Labs - Research</p> <p><i>UMTS Long Term Evolution</i> <u>Fang-Chen Cheng</u> <u>Song Lei</u> Alcatel-Lucent</p> <p><i>Baseband Algorithms for UMTS Long Term Evolution</i> <u>Lei Song</u> <u>Fang-Chen Cheng</u> Alcatel-Lucent</p>	<p><i>Recent Advances on Constant and Varying Power Orthogonal Spreading Codes in Radio Communications</i> <u>Ali Akansu</u> NJIT</p> <p><i>Interference Suppression Techniques for Multiuser MIMO Systems</i> <u>Xiaodong Wang</u> Columbia University</p> <p><i>Adaptive Transmission with Variable-Rate Turbo Bit-Interleaved Coded Modulation</i> <u>Jianghong Luo</u> Alcatel-Lucent</p> <p><i>Cooperative Source and Channel Coding For Wireless Multimedia Transmission</i> <u>Ozgu Alay</u> Polytechnic University</p> <p><i>Mapping Link SNRs of Real-World Wireless Networks onto an Indoor Testbed</i> <u>Jing Lei</u> Rutgers University</p>	<p><i>Convergence, IMS and Beyond</i> <u>Carlos Urrutia-Valdes</u> Alcatel-Lucent</p> <p><i>Redefining How People Communicate: An Overview of Tele-Presence</i> <u>Franck Noel</u> Cisco</p> <p><i>Operational Challenges of Deploying Converged Services over IP</i> <u>Romel Khan</u> IDT Corporation</p> <p><i>Challenges and Solutions in Applying Ad hoc and Sensor Networking for Public Safety Applications</i> <u>Liang Cheng</u> Lehigh University</p>	<p><i>Content Security in P2P Networks</i> <u>Heather Yu</u> Huawei Tech. (USA)</p> <p><i>Efficient Substream Encoding and Transmission for P2P Video on Demand</i> <u>Zhengye Liu</u> Polytechnic University</p> <p><i>Peer-to-Peer Video Streaming: Success and Limits</i> <u>Yong Liu</u> Polytechnic University</p> <p><i>QoS aware P2P Video-on-Demand Service</i> <u>Yang Guo</u> Thomson</p>	<p><i>IP over Optical Cross-Connect Architectures</i> <u>Guangzhi Li</u> AT&T Labs - Research</p> <p><i>Design and Planning Tool for Optical Networks</i> <u>Yunfeng Shen</u> CIENA Corporation</p> <p><i>A Systematic Approach of Incremental Design for Optical Network</i> <u>Dah-Min Hwang</u> AT&T Labs</p> <p><i>Optimal Provisioning of Elastic Service Availability</i> <u>Dahai Xu</u> Princeton University</p>

WOCC Technical Sessions – Friday, April 27, 2007, 15:40 – 17:20

WC3 Panel Session Mobile Applications Chair: TC Chiang TC Consulting Group	NS2 Network Reliability Chair: Mohcene Mezhoudi, Alcatel-Lucent	NS3 Migration to NGN and Mobile Broadband Chair: Amit Mukhopadhyay Alcatel-Lucent	MM2 Multimedia Applications Chair: Zhen Wen IBM	OC2 Optical Communication Technologies Chair: Xiang Liu Alcatel-Lucent
<p><i>Converged Networks, Location Based Services, and Mobile Applications</i> <u>TC Chiang</u> TC Consulting Group</p> <p><i>How to Deploy Location-based Services Now and in the Future</i> <u>Greg Burdett</u> Director, Andrew Corp.</p> <p><i>Location-based (Push) Services – Are we there yet?</i> <u>Vishy Poosala</u> Chief Technologist Bell Labs, Alcatel-Lucent</p> <p><i>Automotive Networking and Applications - Opportunities and Challenges</i> <u>Wai Chen</u> Telcordia</p> <p><i>Mobile Phone Platforms and Service Enablers</i> <u>John N. Wong</u> Huawei Technologies</p>	<p><i>Metrics for Network Resilience and Robustness</i> <u>Michael Torteralla</u> Rutgers University</p> <p><i>Probabilistic Solution Discovery for Network Reliability Optimization</i> <u>Jose Ramirez-Marquez</u> Stevens Inst. of Technology</p> <p><i>Developing Quantitative Reliability Roadmap to Meet Market Expectation</i> <u>Xuemei Zhang</u> Alcatel-Lucent</p> <p><i>Convergent Communications for the Olympics Network Reliability Challenges</i> <u>Spilio Makris</u> Telcordia</p>	<p><i>Wireless - Wireline Convergence</i> <u>Tod Sizer</u> Alcatel-Lucent</p> <p><i>Mobile WiMax in Next Generation Networks</i> <u>Zulfiquar Sayeed</u> Alcatel-Lucent</p> <p><i>On TCP-Jersey</i> <u>Nirwan Ansari</u> NJIT</p> <p><i>RF Radiation - Environmental Effects</i> <u>Krishnamurthy Raghunandan</u> New York City Transit</p> <p><i>Network Mobility for IPv4 Private Domain Networks</i> <u>Harish Viswanathan</u> Alcatel-Lucent</p>	<p><i>Context-aware User Interfaces for Information Seeking</i> <u>Zhen Wen</u> IBM</p> <p><i>Berkeley-DB for Text/Multimedia Retrieval</i> <u>Chun Jin</u> Carnegie Mellon University</p> <p><i>Providing Intelligent Conversation Notation Services in Enterprises</i> <u>Xiaotao Wu</u> Avaya</p> <p><i>ViCo: A Large-Scale On-line Video Correlation System</i> <u>Xiaohui Gu</u> IBM</p>	<p><i>Technologies, Economics, and Deployment of Optical Access Networks</i> <u>Kevin W. Lu</u> Telcordia Technologies</p> <p><i>Optical Technologies for High Capacity Fiber Transmission</i> <u>Xiang Liu</u> Bells Labs, Alcatel-Lucent</p> <p><i>Optical Power Transients and Its Control in a Photonic Network</i> <u>Xiang Zhou</u> AT&T Labs - Research</p> <p><i>Transient Control in Dynamically Reconfigured Networks with Cascaded Erbium Doped Fiber Amplifiers</i> <u>Lei Zong</u> NEC Laboratories America</p>

WOCC Technical Sessions – Saturday, April 28, 2007, 13:40 – 15:20

<p>WC4 Wireless IC and SoC Design</p> <p>Chair: Wei Luo Broadcom</p>	<p>WC5 Sensor and Ad-Hoc Networks</p> <p>Chair: Guiling (Grace) Wang NJIT</p>	<p>NS4 Network Planning, Design Methods and Tools</p> <p>Chair: Ben Tang, Alcatel-Lucent</p>	<p>MM3 Multimedia Indexing and Analysis</p> <p>Chair: Lexing Xie IBM</p>	<p>OC3 Advanced Optoelectronic Components</p> <p>Chair: Jian Jim Wang NanoOpto Corporation</p>
<p><i>Advanced Receiver Structures for OFDM-MIMO Detection</i> <u>Xiaofeng Qi</u> Broadcom</p> <p><i>HW and SW Co-verification of HSUPA for W-CDMA Channel Processor with Seamless PSP</i> <u>Zheng Li</u> Alcatel-Lucent</p> <p><i>3G Soft Modem Design</i> <u>Ming-Jye Sheng</u> Sysair</p> <p><i>SoC Design and Test Methodologies for Wireless Communications Baseband Processors</i> <u>Henry Ye</u> Alcatel-Lucent</p> <p><i>Transmitter Amplifiers for Impulse-based UWB System</i> <u>Laura (Renfeng) Jin</u> Lehigh University</p>	<p><i>Achieving Confidentiality in Distributed Sensor Data Management</i> <u>Wensheng Zhang</u> Iowa State University</p> <p><i>Location-Based Security Design for Wireless Sensor Networks</i> <u>Yanchao Zhang</u> NJIT</p> <p><i>Fault Tolerant Sensor Networks Against Random Node Failures</i> <u>Yanyong Zhang</u> Rutgers University</p> <p><i>Hybrid Networks: Advancing the Theory and Design of Wireless Networks</i> <u>Alex Haimovich</u> NJIT</p> <p><i>Auction-based Spectrum Sharing for Cognitive Radio Networks</i> <u>Jianwei Huang</u> Princeton University</p>	<p><i>Large Network Design</i> <u>Yung Yu</u> AT&T</p> <p><i>Cross-Technology Planning Platform for Wireless Carriers</i> <u>Weiping Wang</u> VPI System</p> <p><i>A Management Strategy for MPLS-TE Networks</i> <u>Tony Lin</u> WANDL</p> <p><i>Wireless Backhaul Transport Cost Reduction Strategies</i> <u>Vijaya Poudyal</u> Alcatel-Lucent</p>	<p><i>Dynamic Multimodal Fusion for Video Search</i> <u>Lexing Xie</u> IBM</p> <p><i>Toward a Better Mobile Search Experience</i> <u>Ning Hu</u> Google</p> <p><i>Automatic Recognition of Audio-Visual Speech: Recent Progress and Challenges</i> <u>Stephen Chu</u> IBM</p> <p><i>Ferret: A Toolkit for Content-Based Similarity Search of Feature-Rich Data</i> <u>Qin Ly</u> Princeton University</p>	<p><i>Observations of Nonlinearities and Non-classical Optics in Photonic Crystals</i> <u>Chee Wei Wong</u> Columbia University</p> <p><i>Recent Research Activities on Specialty Fibers</i> <u>Ming-Jun Li</u> Corning Inc.</p> <p><i>Nanoimprint and Holographic Lithographies for Large-area Nano- optical and Biosensing Applications</i> <u>Jian Jim Wang</u> NanoOpto Corp.</p> <p><i>Broadband Quantum-Dash Laser: A New Class of Semiconductor Laser</i> <u>Boon S. Ooi</u> Lehigh University</p> <p><i>Optical Seismic Sensor Array Based on Fiber-Bragg-Grating Sensors</i> <u>Yan Zhang</u> <u>Hong-Liang Cui</u> Stevens Inst. of Technology</p>

WOCC Technical Sessions – Saturday, April 28, 2007, 15:40 – 17:20

<p>WC6 Next Generation Wireless Communications II</p> <p>Chair: Gang Li Alcatel-Lucent</p>	<p>WC7 Mobile Networking and Security</p> <p>Chair: Guangying Li Alcatel-Lucent</p>	<p>NS5 Emerging and Innovative Technologies</p> <p>Chair: Dong Sun Alcatel-Lucent</p>	<p>MM4 Multimedia Content Analysis and Delivery</p> <p>Chair: Rong Duan AT&T</p>	<p>OC4 Optical Communication Components and Subsystems</p> <p>Chair: Deyu Zhou Opnext</p>
<p><i>Behind Mobile WiMAX Technology</i> <u>Chenxi Zhu</u> Fujitsu Lab</p> <p><i>Overview of 4G Ultra Mobile Broadband (UMB) Air Interface</i> <u>Yifei Yuan</u> Alcatel-Lucent</p> <p><i>Overview of Ultra Mobile Broadband Air Interface Upper Layers Standard</i> <u>Jialin Zou</u> Alcatel-Lucent</p> <p><i>Technical Overview of 3GPP Long Term Evolution (LTE) and 3GPP2 Ultra Mobile Broadband (UMB)</i> <u>Hyung Myung</u> Qualcomm</p>	<p><i>Status of IMS-Based Next Generation Networks for Fixed Mobile Convergence</i> <u>Joe Lin</u> Telcordia</p> <p><i>Attack Detection in Wireless Localization</i> <u>Yingying(Jennifer) Chen</u> Alcatel-Lucent</p> <p><i>Mobile Digital Forensics</i> <u>Yun-Qing Shi</u> NJIT</p> <p><i>Wireless Security Threats and Countermeasures</i> <u>Steve Wang</u> Alcatel-Lucent</p>	<p><i>Convergence of Policy based Resource Management Framework in Next Generation Networks</i> <u>Dong Sun</u> Alcatel-Lucent</p> <p><i>Enhancing the Internet Survivability Using IP Fast Rerouting</i> <u>Kang Xi</u> Polytechnic University</p> <p><i>Ferry-Based Intrusion Detection and Mitigation Schemes for Sparsely Connected Adhoc Networks</i> <u>Mooi Choo Chuah</u> Lehigh University</p> <p><i>A New Radio Channel Allocation Strategy for APs of WLANs With Power Control</i> <u>Ming Yu</u> Florida State University</p>	<p><i>Semi-Supervised Learning in Image Classification</i> <u>Rong Duan</u> AT&T</p> <p><i>Robust Adjusted Likelihood Function in Classification</i> <u>Hong Man</u> Steven Inst. of Technology</p> <p><i>IGP Weight Settings in Multimedia IP Networks</i> <u>Dongmei Wang</u> AT&T</p> <p><i>WebTalk: Towards Automatically Building Interactive Systems Through Mining Websites</i> <u>Junlan Feng</u> AT&T</p> <p><i>Video Coding Using 3-D Dual-Tree Wavelet Transform</i> <u>Beibei Wang</u> Polytechnic University</p>	<p><i>High Bit Rate Optical Data Bus Technologies for Advanced Wireless Handheld Devices</i> <u>Louay Eldada</u> DuPont Photonics Tech.</p> <p><i>Transitions from R&D to Product Realization: Opportunities and Challenges for Optical Component Industries</i> <u>Deyu Zhou</u> Opnext, Inc</p> <p><i>Nonlinear Silicon Photonics and Its Application in On-chip Optical Interconnection Networks</i> <u>Xiaogang Chen</u> Columbia University</p> <p><i>Radio-Frequency Characteristics of Ultraviolet Optical Links</i> <u>Jie Deng</u> Lehigh University</p>

Poster Sessions – Friday April 27 and Saturday April 28, 13:40 – 15:20

1. Hasan Mahmood and Cristina Comaniciu **Stevens Institute of Technology**
A Cross-Layer Game Theoretic Solution for Interference Mitigation in Wireless Ad Hoc Networks
2. Nie Nie and Cristina Comaniciu, **Stevens Institute of Technology**
Prathima Agrawal **Auburn University**
A Game Theoretic Approach to Energy Efficiency in Cognitive Networks
3. Si Yin and Nirwan Ansari **New Jersey Institute of Technology**
A Novel Approach for Extending Storage Area Network (SAN) over Optical Access Network
4. Eric Bi and Justin Bi **Morristown High School, Morris County, NJ**
Cell Phone Design for the Youth Generation
5. Pan Liu **Broadcom**
Yehekel Bar-Ness **New Jersey Institute of Technology**
Comparison of Phase Noise Effect in OFDM and Single-Carrier Frequency Domain Equalization (SC-FDE) Systems
6. Eric Cheng Chen, Chee-Loon Tan, **Lehigh University**
Yang Wang, Boon S. Ooi, and James C. M. Hwang,
Linewidth Enhancement Factor of InAs/InAlGaAs Quantum-dash-in-well Laser
7. Di Zheng and Yu-Dong Yao, **Stevens Institute of Technology**
MAC Protocols for Wireless Sensor Networks
8. Zhuo Yang, Didem Kivanc-Tureli, and Uf Tureli, **Stevens Institute of Technology**
Multiple Antennas Receiver Initiated Busy Tone Medium Access (MARI-BTMA) Protocol in Decentralized Wireless Network
9. Seon Woo Lee and Haim Grebel, **New Jersey Institute of Technology**
Properties of Carbon Nanotube/Conducting Polymer Addressable Interconnects
10. Xiaoling Chen and Ufuk Tureli, **Stevens Institute of Technology**
Source Localization Based on Energy Measurement with Randomly Distributed Sensor Array
11. Yun-Hsiang Ding and Vitchanetra Hongpinyo, **Lehigh University**
Semiconductor Photonic Integration Using Cu-doped SiO₂ Induced Intermixing
12. Bo Niu, Osvaldo Simeone, and Alexander M. Haimovich, **New Jersey Institute of Technology**
Oren Somekh, **Princeton University**
Throughput of Broadcast Channels with Outdated Limited Feedback and User Selection

Conference Participated by

