

The 14th Wireless & Optical Communications Conference Program Schedule

	Friday, April 22, 2005	Saturday, April 23, 2005
08:00 ~ 09:00	Registration	Registration
09:00 ~ 09:10	F1 Opening Remarks Conference Chair: Tien Pei Lee	S1 Opening Remarks Conference Chair: Tien Pei Lee
09:10 ~ 16:10	Exhibition	Exhibition
09:10 ~ 10:40 (90 Minutes)	F2 Plenary Session I Chair: Qi Bi, Lucent Robert Yang, ASTRI Tom Koch, Lehigh University Fred Juang, Georgia Tech	S2 Plenary Session III Chair: Xiaomei Qian, Amaranth Xiaomang Yu, China Unicom Alice Chou, TIER
10:40 ~ 10:50	Break	Break
10:50 ~ 12:20 (90 Minutes)	F3 Plenary Session II Chair: Heather Yu, Panasonic Mike Schwartz, Telcordia Wuqiang Li, Consulate General of PRC Steve Socolof, New Venture Partners	S3 Plenary Session IV Chair: Deyu Zhou, Opnext Zhaohui Wu, Zhejiang University Ian Chiou, CCL/ITRI Shen-Chang Chao, ASTRI
12:30 ~ 14:00	F4 Luncheon Keynote: Ed Chao Director, Mobility Solutions Product Management, Lucent	S4 Luncheon
14:00 ~ 16:10	Poster Session	Poster Session
Parallel Sessions 14:00 ~ 15:40 (100 Minutes)	F5 Technical Session I (Wireless) Chair: Benjamin Tang, Lucent Co-chair: Dong Sun, Lucent <i>Wireless and Wireline Convergence</i>	S5 Technical Session VI (Wireless) Chair: Xiaodong Wang, Columbia Univ. Co-chair: Guosen Yue, NEC Research <i>Broadband Wireless and Sensory Network</i>
	F6 Technical Session II (Optical) Chair: Xiang Liu, Lucent Co-chair: Chongjin Xie, Lucent <i>Enabling Technologies for Optical Communications and Networks</i>	S6 Technical Session VII (Optical) Chair: Zhengyu Huang, RSoft <i>Applications of Fiber and Integrated Optical Communications</i>
	F7 Panel Discussion I (Multimedia) Chair: R. Chandramouli, Stevens <i>What's Next in Wireless Multimedia</i>	S7 Technical Session VIII (Multimedia) Chair: Peng Yin, Thomson <i>Emerging Multimedia Technologies</i>
15:40 ~ 16:10	Break	Break
Parallel Sessions 16:10 ~ 17:50 (100 Minutes)	F8 Technical Session III (Wireless) Chair: MengChu Zhou, NJIT <i>Wireless Ad Hoc Networks</i>	S8 Technical Session IX (Wireless) Chair: Shen-De Lin, Lucent Co-chair: Tau Zhang, Telcordia <i>Wireless Mobile Communications</i>
	F9 Technical Session IV (Optical) Chair: Xiang Zhou, AT&T Labs <i>Optical Communications and Network Systems</i>	S9 Technical Session X (Optical) Chair: Haisheng Wang, Boeing <i>Optoelectronics and Network Elements</i>
	F10 Technical Session V (Multimedia) Chair: James Lei, ASTRI <i>Digital Wireless Multimedia</i>	S10 Technical Session XI (Multimedia) Chair: Wen-Yi Zhao, Sarnoff <i>Interactive Multimedia</i>
18:00 ~ 20:00	F11 Conference Reception	

DAY 1 (FRIDAY, APRIL 22, 2005)

Registration (08:00-09:00 AM)

F1 – Opening Remarks (09:00-09:10 AM)

Conference Chair: **Tien Pei Lee**, Telcordia Technologies (Retired)

Honorable Guest: **Doug Zuckerman**, VP Membership Services, IEEE Communications Society

F2 – Plenary Session I (09:10-10:40 AM)

Session Chair: **Qi Bi**, Lucent Technologies

09:10 – 09:40 AM **Robert J. Yang**, CEO, ASTRI

“ASTRI: Building the Technology Base for Hong Kong’s Future”

09:40 – 10:10 AM **Tom Koch**, Director of Center for Optical Technologies, Lehigh University

“Perspectives on Photonic Integration”

10:10 – 10:40 AM **Bing-Hwang (Fred) Juang**, Motorola Foundation Chair Professor, Georgia Tech

“Convergent Communication Technologies and Services with Context Awareness”

Break (10:40-10:50 AM)

F3 – Plenary Session II (10:50 AM-12:20 PM)

Session Chair: **Heather Yu**, Panasonic Digital Networking Laboratory

10:50 – 11:20 AM **Mike Schwartz**, Executive Director and Chief Strategist, Operation Solutions, Telcordia Technologies

“Converged Services and the Telco of the Future”

11:20 – 11:50 AM **Wuqiang Li**, Consul, Consulate General of PRC in New York

“Overview of Optical and Wireless Communication R&D in the 863 Program”

11:50 – 12:20 PM **Stephen J. Socolof**, Managing Partner, New Venture Partners

“A Business Case for Mobile Broadband Data”

F4 – Luncheon (12:30-2:00 PM)

Keynote Speech: **Ed Chao**, Director, Mobility Solutions Product Management, Lucent Technologies
“Convergence of Wireless Services”

Poster Session (2:00-4:10 PM)

1. **Hanyu Li, Yu-Dong Yao, and Jin Yu**, Stevens Institute of Technology
“Outage Probabilities of Wireless Systems with Beamforming”
2. **Ming Qu, Frank Y. Shih, Ju Jing, and Haimin Wang**, New Jersey Institute of Technology
“Automated Recognition of Solar Flares in Real-Time Data”
3. **Chau Yuen and Yong Liang Guan**, Nanyang Technological University (NTU) and **Tjeng Thieng Tjhung**, Institute of Infocomm Research (I2R)
“New High-Rate STBC with Good Dispersion Property”
4. **Lichuan Liu and Hongya Ge**, New Jersey Institute of Technology
“Subspace Projection & Time-varying AR modeling for Anti-Jamming DS-CDMA Communications”

Parallel Technical Sessions (2:00-3:40 PM)

F5 – Technical Session I: Wireless and Wireline Convergence

Session Chair: **Benjamin Y.C. Tang**, Lucent Technologies

Session Co-chair: **Dong Sun**, Lucent Technologies

02:00 – 02:25 PM **Fuchun Joseph Lin**, Telcordia Technologies

“A Survey on Wireless/Wireline Integration”

02:25 – 02:50 PM **Benjamin Y.C. Tang**, Lucent Technologies

“Evolving to Wireless and Wireline Convergence – An Overview of IMS”

02:50 – 03:15 PM **Ming-Jye Sheng**, SysAir Inc.

“Requirements and Challenges for 3G/3.5G Mobile Terminal Tests”

03:15 – 03:40 PM **Thaddeus J.A. Kobylarz**, AT&T Wireless Services

“The Utility of Compound Wireless Services”

F6 – Technical Session II: Enabling Technologies for Optical Communications and Networks

Session Chair: **Xiang Liu**, Lucent Technologies

Session Co-chair: **Chongjin Xie**, Lucent Technologies

02:00 – 02:25 PM **Daniel C. Kilper, et al.**, Lucent Technologies

“Optical Performance Monitoring Applications in Transparent Networks”

02:25 – 02:50 PM **Jay (Y.C.) Hsieh**, Optoplex Corporation

“Tunable Filter Based Reconfigurable Optical Network”

02:50 – 03:15 PM **Chongjin Xie**, Lucent Technologies

“Polarization Mode Dispersion and Its Mitigation Techniques in High Speed Fiber Optical Communication Systems”

03:15 – 03:40 PM **Hongbin Zhang, et al.**, Tyco Telecommunications

“Enabling Technology for Suppressing Nonlinear Interchannel Crosstalk in DWDM Transoceanic Systems”

F7 – Panel Discussion I: What’s Next in Wireless Multimedia (2:00-3:40 PM)

Session Chair: **R. Chandramouli**, Stevens Institute of Technology

Nirwan Ansari, Professor, Dept. of ECE, NJIT

Samir R. Das, Professor, Dept. of Computer Science, SUNY-Stony Brook

K.C. Lee, Director, MDCD Laboratory, Panasonic Research

Bruce McNair, Distinguished Service Professor, Dept. of ECE, Stevens

Sai Sankar N, Senior Member Research Staff, Philips Research

Break (3:40-4:10 PM)

Parallel Technical Sessions (4:10-5:50 PM)

F8 – Technical Session III: Wireless Ad Hoc Networks

Session Chair: **MengChu Zhou**, NJIT

- 04:10 – 04:35 PM **Hao Zhang** and **Zongping Jiang**, Polytechnic University
“Performance Evaluation and Improvement of Broadcasting Algorithms in Ad Hoc Networks”
- 04:35 – 05:00 PM **Yi Sun**, The City College of City University of New York
“Transport Capacity and Spectral Efficiency of Large Wireless CDMA Ad Hoc Networks”
- 05:00 – 05:25 PM **Liang Cheng**, Lehigh University
“Lightweight Service Advertisement and Discovery in Mobile Ad Hoc Networks”
- 05:25 – 05:50 PM **Harish Viswanathan**, *et al.*, Lucent Technologies
“Hybrid Networks: Cellular-Relay Architecture”

F9 – Technical Session IV: Optical Communications and Network Systems

Session Chair: **Xiang Zhou**, AT&T Labs-Research

- 04:10 – 04:35 PM **Mark D. Feuer** and **Vinay Vaishampayan**, AT&T Labs-Research
“Lightpath Tracing in Photonic Networks”
- 04:35 – 05:00 PM **Paul Toliver** and **Shahab Etemad**, Telcordia Technologies
“Hyperfine Spectral Phase Coded Optical CDMA: Component Technologies and Networking Applications”
- 05:00 – 05:25 PM **Yi Cai**, Tyco Telecommunications
“Limit on Coding and Modulation Gains in Fiber-Optic Communication Systems”
- 05:25 – 05:50 PM **Y.-H. Kao** and **J.J. Benson**, Lucent Technologies
“DWDM Core Transport Technology”

F10 – Technical Session V: Digital Wireless Multimedia

Session Chair: **James Z. Lei**, ASTRI

- 04:10 – 04:35 PM **Wen Gao**, Institute of Computing Technology, Chinese Academy of Sciences
“China’s New Audio-Video Standard – AVS Forum”
- 04:35 – 05:00 PM **Q. Peter Li** and **Wei Li**, Li Creative Technologies, Inc.
“Noise Reduction and Speech Enhancement for High-Quality Wireless Handsets”
- 05:00 – 05:25 PM **Tsong-Ho Wu** and **Nam Hong Cheng**, Telcordia Technologies
“Mobile Multimedia Collaboration Architecture and Applications”

F11 – Conference Reception (6:00-8:00 PM)

DAY 2 (SATURDAY, APRIL 23, 2005)

S1 – Opening Remarks (9:00-9:10 AM)

Conference Chair: **Tien Pei Lee**, Telcordia Technologies (Retired)

Honorable Guest: **Benjamin Cheng**, Chairman, ABC Digital Electronics

S2 – Plenary Session III (9:10-10:40 AM)

Session Chair: **Xiaomei Qian**, Amaranth Group

09:10 – 09:55 AM **Xiaomang Yu**, Commissioner, Development Strategy Consulting Committee, China Unicom

“Network Evolution and Wireless Services in China”

09:55 – 10:40 AM **Alice Chou**, Director, Information Services, Taiwan Institute of Economic Research (TIER)

“The Strategy and Policy to Develop the Communication Industry in Taiwan”

Break (10:40 AM-10:50 AM)

S3 – Plenary Session IV (10:50 AM-12:20 PM)

Session Chair: **Deyu Zhou**, Opnext

10:50 – 11:20 AM **Zhaohui Wu**, Deputy Dean, College of Computer Science, Zhejiang University

“Embedded Computing and Sensor Networks”

11:20 – 11:50 AM **Ian Y. Chiou**, Director, Industrial Technology Research Institute (ITRI)

“Next Generation Broadband Communications”

11:50 – 12:20 PM **Shen-Chang Chao**, VP, ASTRI

“Multimedia Digital Home – Latest Advances and Applications”

S4 – Luncheon (12:30-2:00 PM)

Poster Session (2:00-4:10 PM)

5. **Zhigang Wang** and **MengChu Zhou**, New Jersey Institute of Technology
“Hybrid Networks: Cellular-Relay Architecture”

6. **Xuning Chen**, Princeton University
“Exploring the Design Space of Power-Aware Opto-Electronic Networked Systems”

7. **Zhen Guo** and **Mengchu Zhou**, New Jersey Institute of Technology
“Adaptive Mobility Prediction in Wireless Sensor Network”

8. **Yuecheng Zhang**, Lehigh University
“A Wireless Sensor Network for Earthquake Response Monitoring”

9. **Jin Yu** and **Yu-Dong Yao**, Stevens Institute of Technology
“Wireless Security: LPI Performance of Chaotic Signals”

10. **Qiang Zhao** and **Hongbin Li**, Stevens Institute of Technology
“Decode-Based Differential Modulation for Wireless Relay Networks”

Parallel Sessions (2:00-3:40 PM)

S5 – Technical Session VI: Broadband Wireless and Sensory Network

Session Chair: **Xiaodong Wang**, Columbia University
Session Co-chair: **Guosen Yue**, NEC Research Laboratories America

- 02:00 – 02:25 PM **Guosen Yue**, NEC Research Laboratories America
“Design and Analysis of LDPC for MIMO-OFDM”
- 02:25 – 02:50 PM **Frank Y. Shih** and **Yi-Ta Wu**, NJIT, and
Jian Liang Chen, National Dong Hwa University
“A Smart Sensor Network for Object Detection, Classification and Recognition”
- 02:50 – 03:15 PM **Jin Yu** and **Yu-Dong Yao**, Stevens Institute of Technology
“Secure Chaotic Spread-Spectrum Communication Systems”
- 03:15 – 03:40 PM **Loc Nguyen**, University of Paris XII and Paris VI
“A Model of Service Provision for Wireless Sensor Networks”

S6 – Technical Session VII: Applications of Fiber and Integrated Optical Communications

Session Chair: **Zhengyu Huang**, RSoft Design Group, Inc.

- 02:00 – 02:20 PM **Chee Wei Wong**, Columbia University
“Silicon Photonics”
- 02:20 – 02:40 PM **Minglai Kao**, Multiplex, Inc.
“Timing Jitter Control of an Add/Drop Optical Module in a Convergent Network”
- 02:40 – 03:00 PM **Kung-Li Deng**, GE Global Research Center
“Next Generation Fiber Optic Sensing and Its Applications”
- 03:00 – 03:20 PM **Ying (Emily) Hu**, Lucent Technologies
“Optical Control Planes: Status and Perspectives”
- 03:20 – 03:40 PM **Bing C. Wang**, University of Connecticut
“Multi-User Quantum Encryption Network”

S7 – Technical Session VIII: Emerging Multimedia Technologies

Session Chair: **Peng Yin**, Thomson Inc.

- 02:00 – 02:25 PM **Hong Man**, Stevens Institute of Technologies
“Directional Filterbank for Texture Image Classification”
- 02:25 – 02:50 PM **Xiaoan Lu**, Polytechnic University
“Minimizing Power Consumption of Source Encoding and Radio Transmission in Multiuser CDMA Systems”
- 02:50 – 03:15 PM **Juhua Zhu**, Princeton University
“Video Segmentation for Surveillance”
- 03:15 – 03:40 PM **Hang Liu**, Thomson, Inc.
“Video Transmission over IEEE 802.11-based Wireless LAN”

Break (3:40-4:10 PM)

Parallel Sessions (4:10-5:50 PM)

S8 – Technical Session IX: Wireless Mobile Communications

Session Chair: **Shen-De Lin**, Lucent Technologies
Session Co-chair: **Tao Zhang**, Telcordia Technologies

- 04:10 – 04:35 PM **Gerard A. Brosnan**, Mitretek Systems
“The Future of Mobile Data Services”
- 04:35 – 05:00 PM **Wenwu Zhu**, Intel Communications Technology Lab China
“Intel Communications Technology China Lab Wireless Overview”
- 05:00 – 05:25 PM **Michael Luddy**, Signal Processing Consultants
“Signal Processing Techniques for 3G Wireless Power Amplifier”
- 05:25 – 05:50 PM **Li-Chun Wang**, National Chiao Tung University
“A Network Perspective of MIMO Antenna Techniques with Multiuser Scheduler”

S9 – Technical Session X: Optoelectronics and Network Elements

Session Chair: **Haisheng Wang**, The Boeing Company

- 04:10 – 04:30 PM **Jian Jim Wang**, NanoOpto
“Redefine Optical Devices’ Integration and Manufacturing through Nano-engineering”
- 04:30 – 04:50 PM **Louay Eldada**, Dupont Photonics
“Advances in Optoelectronic Technologies for ROADM Subsystems”
- 04:50 – 05:10 PM **Zhengyu Huang**, RSoft Design Group, Inc.
“Advanced Photonics Design Automation (PDA) Software for Integrated Optoelectronic Components and Optical Communication Systems”
- 05:10 – 05:30 PM **Hui Nie**, Triquint Optoelectronics
“High Performance, Low-Cost PIN, APD Receivers in Fiber Optical Networks and FTTx Applications”
- 05:30 – 05:50 PM **Kang-Yih (K.-Y.) Liou**, Multiplex, Inc.
“High-Speed Opto-Electronic Components for Digital and Analog RF Systems”

S10 – Technical Session XI: Interactive Multimedia

Session Chair: **Wen-Yi Zhao**, Sarnoff Corporation

- 04:10 – 04:35 PM **Ying Li**, IBM T.J.Watson Research Center
“Multimedia Content Analysis for E-Learning Application”
- 04:35 – 05:00 PM **Yingli Tian**, IBM T.J.Watson Research Center
“S3-R1: The IBM Smart Surveillance System Release 1”
- 05:00 – 05:25 PM **S. Kevin Zhou**, Siemens Corporate Research, Inc.
“Statistical Learning and Analysis for Unconstrained Face Recognition and Analysis”
- 05:25 – 05:50 PM **Dinkar Bhat**, Triveni Digital
“Opportunities for Data Broadcasting in Terrestrial Digital TV”