



IEEE Graduates of the Last Decade (GOLD) Session

Wednesday, 28 November 2007, 4:15 - 6:45pm at the

IEEE Global Telecommunications Conference (Globecom 2007)

Washington, DC, USA

Invitation:

IEEE GOLD (Graduates of the Last Decade) would like to invite you to a special GOLD Session at GLOBECOM 2007. The session will be held on Wednesday the 28th of November and is only the second ever GOLD technical forum at a major IEEE conference.

This GOLD Session is made up of two parts. The first has two invited talks on issues of interest to both young professionals in industry and also those in academia. Our first presenter is Professor Ted Rappaport, Chair in Engineering at the University of Texas at Austin. He will be talking on "Starting a company from research". Our other invited speaker is Dr Tao Zhang, Director of Mobile Networking Research Group at Telcordia Technologies. His topic is "The changing environment and the new challenges in industry-based telecommunications research labs".

The second part of the GOLD Session is a panel forum devoted to entrepreneurship. It aims to bring together information and examples of interest to young graduate researchers and young professionals who are interested in talking ideas to market. Each panellist will present for 10 to 15 minutes. A Question & Answer session will follow and we would really like you to come along and ask about the issues which you are facing, or interested in.

We hope you think that the GOLD Session will be exciting and motivating. Come along and enjoy.

Dr Irena Atov
 for the "GOLD Session at GLOBECOM 2007" Organizing Committee

GOLD Session Program:

Time / Day	Wednesday 28 th November
3.45 - 4.15	Break
4.15 - 5.15	<p>GOLD Invited Speakers: Starting a company from research Professor Ted Rappaport (University of Texas)</p> <p>The changing environment and the new challenges in industry-based telecommunications research labs Dr Tao Zhang (Telcordia)</p>
5.15 - 5.20	Short Break
5.20 - 6.45	<p>GOLD Panel: Entrepreneurship for young professionals: Taking an idea and commercializing it Moderator: Michael S. Chester (Boston Entrepreneurial Network)</p> <p>Panellists: Michael S. Chester (Boston Entrepreneurial Network) Dr Ralph Wyndrum (Innovation Institute) Dr Robert Miller (Trace Systems) Dr Anthony Soong (Huawei Technologies - USA) Dr Tao Peng (IntelliGuard)</p>
7.00 pm	GLOBECOM 2007 Dinner

GOLD Invited Speakers

4:15 - 4:45 pm: GOLD Invited speaker:

Professor Ted Rappaport



“Starting a company from research”

Ted Rappaport is the William and Bettye Nowlin Chair in Engineering at the University of Texas at Austin and is the founding director of the Wireless Networking and Communications Group (WNCG) at the university's Austin campus, a center he founded in 2002. From 1988 to 2002, he was on the electrical and computer engineering faculty of Virginia Tech, where he founded the Mobile and Portable Radio Research Group (MPRG), one of the world's first university research and teaching centers dedicated to the wireless communications field. In 1989, he founded TSR Technologies, Inc., a cellular radio/PCS software radio manufacturer that he sold in 1993. In 1995, he founded Wireless Valley Communications Inc., a pioneering creator of site-specific radio propagation software for network design and management that was acquired by Motorola, Inc. in 2005.

Rappaport received the Marconi Young Scientist Award in 1990, an NSF Presidential Faculty Fellowship in 1992, the Sarnoff Citation from the Radio Club of America in 2000, the Fredrick E. Terman Outstanding Electrical Engineering Faculty Award from the ASEE in 2002 and the Stuart F. Meyer Award from the IEEE Vehicular Technology Society in 2005. Rappaport has over 100 U.S. or international patents issued or pending and has authored, co-authored and co-edited 18 books in the wireless field, including *Wireless Communications: Principles & Practice*, *Principles of Communication Systems Simulation with Wireless Applications*, and *Smart Antennas for Wireless Communications: IS-95 and Third Generation CDMA Applications*. In 1999, his work on site-specific propagation received the IEEE Communications Society Stephen O. Rice Prize Paper Award. Dr. Rappaport is one of the most highly cited authors in the wireless field, according to ISI Highly Cited and has published over 200 technical papers. He serves on the editorial boards of several academic and technical journals, is a fellow of the IEEE and is active in the IEEE Communications and Vehicular Technology societies. He is a highly sought after technical expert, having consulted for over 25 multinational corporations and the International Telecommunication Union (ITU). He currently serves on the technical advisory boards of iTaggit, Inc., Motion Computing, Inc., Alereon, Inc., Paratek Microwave, Inc. and the Federal Communications Commission. He received B.S., M.S. and Ph.D. degrees in electrical engineering from Purdue University in 1982, 1984 and 1987, respectively.

4:45 - 5:15 pm GOLD Invited speaker:

Dr Tao Zhang



“The changing environment and the new challenges in industry-based telecommunications research labs”

Dr. Tao Zhang is now a Chief Scientist and the Director of Mobile Networking Research Group in the Emerging Technologies and Services Research Department at Telcordia Technologies. He has been with Telcordia since 1995. Tao has been leading research and development efforts in areas such as mobility across heterogeneous radio systems, vehicular networking and applications, mobile information services, mobile peer-to-peer applications, and sensor networks and applications. He has been leading the effort to position Telcordia as a major player in the DoT Vehicle Infrastructure Integration (VII) program and to extend Telcordia's telematics business into the major automakers in the VII Consortium. He is now managing the R&D program for the VII Security Work Order also. Tao has co-authored the book "IP-Based Next Generation Wireless Networks" published by John Wiley & Sons in 2004. He holds 12 U.S. patents, with many more patent applications pending in the US, Europe, and Japan.

Tao received the Ph.D. degree in electrical and computer engineering from the University of Massachusetts Amherst in 1993. Before joining Telcordia, Tao worked at Citibank, Lehman Brothers, and Dow Jones/Telerate, where he led the planning, design, implementation, and deployment of software systems and networks for real-time global financial data services. The derivatives data collection, processing, and distribution system he led to develop in Citibank continues to be used for live trading globally today.

Tao created and has been leading the international conference series "CollaborateCom: International Conference on Collaborative Computing: Networking, Applications, and Worksharing" co-sponsored by the IEEE, Create-Net, and ICST. He serves on the Industry Board of the Create-Net Research Consortium, and the editorial board of the ACM/Kluwer Journal of Wireless Networks. He received the 2000 Telcordia CEO Award for most exceptional teams and individuals who have achieved a significant business success and the 2002 SAIC Executive Science and Technology Council Publication Prize.

GOLD Panellists

5.20 - 6:45 pm: Panel: **Entrepreneurship for young professionals: taking an idea & commercializing it**



Michael S. Chester

"How to raise money for your start-up"

Michael S. Chester, Chairman of the IEEE Boston Entrepreneurs' Network, www.boston-enet.org, and President, International Manufacturing Consultants, has founded and built companies, set up manufacturing operations, formed strategic partnerships, set up global joint ventures, raised over \$40M, and commercialized technologies.

Mike was VP Business Development for startup Tonbu, which grew to 142 employees and developed web-based collaborative environments which enabled global electronics companies to speed up time to market. He spent 16 years with IBM designing robots and automation, marketing and selling IBM products to manufacturing companies, setting up global operations and supply chains, and founding an IBM consulting organization for manufacturing clients which he grew into a \$20M business.

Mike lived in China for from 1986-1987 while consulting to companies owned by the Machine Building Ministry and taught graduate courses at Hunan University. He works extensively in China today. Mike serves on the board of Rudilian BV, www.rudilian.com, which is setting up wireless payment and banking systems in China and is a partner and advisory board member of Massachusetts based BioHermes, www.biohermes.com, which forms partnerships between US based biotech startups and Chinese companies to develop medical devices and pharmaceuticals. Mike and his sons have competed on the TV show Robot Wars with their robotic rabbit, "Bunny Attack". Mike earned a BS in Electrical Engineering and MS in Computer Engineering from Syracuse University and a MBA from Union College. He is also a member of the Case Presentations Committee of the MIT Enterprise Forum and is a frequent speaker at conferences on Global Entrepreneurship and China business.



Dr Ralph Wyndrum

"The IEEE-USA Innovation Institute Program"

Dr. Wyndrum leads Executive Engineering Consultants, in areas of R&D resource allocation and decision sciences targeted at new products and services. He also teaches Strategic Leadership/ Decision Quality at Rutgers. Prior to assuming these positions, he had a long and successful career at Bell Labs and AT&T Labs, beginning in thin film and solid state circuit R&D, and retiring as Technology Vice President and then Program Planning and Management Vice President.

During his 36 years at Bell-Labs/AT&T, Wyndrum was Member of Technical Staff; Supervisor of IC Development; Head of several R&D Departments; Director of Systems Analysis; of Quality, Engineering, Software and Technologies; Technology V.P. of AT&T Labs; and Program Planning and Management V.P. In 2000 he was an AT&T Executive Consultant, involved in a wide variety of business-related projects and development of a graduate level Internet Protocol curriculum for AT&T's technical staff. In the 1970s and 1980s, Wyndrum served as the ITU delegate in Geneva from AT&T for local Transmission Systems. He also taught graduate EE courses at Stevens Institute as adjunct Professor from 1981-1988, and has advised masters and doctoral thesis students at NJIT and Rutgers where he now teaches.

In 2004 he served as IEEE V.P. of Technology Activities and has served as a member of the IEEE Executive Committee, and the Board of Directors for five years. In 2003, he was V.P. for Technology Policy of IEEE-USA. He has also served as IEEE Publications V.P., and on the Technical Activities Board (TAB), the U.S. Activities Board, and as an ABET evaluator.

As IEEE-USA 2006 President, Wyndrum advanced programs aimed at mid-career education and at K-12 Science and Mathematics education. In January 2007, Wyndrum's appointment as CEO and President of the newly formed IEEE-USA Innovation Institute in Washington, DC was announced.

Dr. Wyndrum holds BS(EE) and MS(EE) degrees and an Executive MBA from Columbia University and a Doctorate(Eng.Sc.D.) from New York University. He has published over 40 papers, articles and reviews and is a contributing author to texts published by Wiley and McGraw Hill. He is frequently invited to speak at international conferences and workshops and holds six patents in integrated circuit applications, VF receiver design, and voice/data transmission.

Dr Robert Miller



“Independent innovation: business at the bleeding edge”

Robert Miller received a PhD degree in Electrical and Computer Engineering from the University of Illinois at Urbana-Champaign in 1987. He worked in, and later managed, the R&D group at Zenith that put Surface Acoustic Wave (SAW) filters in color TVs for the first time. These devices are now used in just about every color TV in the world. At Westinghouse, he received 3 George Westinghouse Innovation Awards for his work a gallium arsenide digitally-programmable RF filter technology. He wrote a book on this technology, published by Artech House, in 1991.

He founded Trace Systems, Inc. in 1993, where he does consulting work on the design of low-cost products, involving mixed-signal hardware design (often involving MicroChip PICmicro devices) and Microsoft Windows software to control it. Trace Systems has a complete development and testing lab for product prototypes, with digital and analog /RF test capabilities up to 1.3 GHz. Dr. Miller is the author of over 20 articles and conference papers, including the popular article series in MicroComputer Journal, “Delphi in the Laboratory.” He is active in the IEEE Consultants Network, having served as Chairman of the IEEE National Capital Area Council Consultants Network in 1994-95. He was co-chairman of the National AICN Consultant’s Workshop, “Growing Your Consulting Business,” in October 1996, at which he made several presentations. He presented his popular 4-part series “The Art of Consulting” in 2002.

Dr Anthony Soong



“Mentoring and the entrepreneurial spirit”

Anthony C. K. Soong (S’88-M’91-SM’02) received the B.Sc. degree in animal physiology and physics from the University of Calgary, and the B.Sc. degree in electrical engineering, the M.Sc. degree in biomedical physics and Ph.D. degree in electrical and computer engineering from the University of Alberta. He is currently a principal engineer for advance research and standards at Huawei Technologies Co. Ltd, in the US. He serves as the chair for 3GPP2 TSG-C NTAH (the next generation technology development group) and vice chair for 3GPP2 TSG-C WG3 (the physical layer development group for CDMA 2000). Prior to joining Huawei, he was with the systems group for Ericsson Inc and Qualcomm Inc. His research interests are in statistical signal processing, robust statistics, wireless communications, spread spectrum techniques, multicarrier signaling, multiple antenna techniques and physiological signal processing.

Dr. Soong is a senior member of the IEEE. He has published numerous scientific papers and has over 30 patents granted or pending. He received the 2005 award of merit for his contribution to 3GPP2 and cdma2000 development. He has served on the technical program committee and has chaired at numerous major conferences in the area of communications engineering. He has acted as guest editor for the *IEEE Communications Magazine* and is a technical reviewer for the *EURASIP Journal on Wireless Communications and Networking*, *IEEE Transactions on Communications*, *IEEE Transactions on Wireless Communications*, *IEEE Transactions on Vehicular Technology*, *IEEE Transactions on Signal Processing* and *IEEE Communication Letters*.

Dr Tao Peng



“How to cross the chasm between research and product”

Tao Peng is a Co-founder and Chief Scientist at IntelliGuard I.T., a network security company based in Melbourne, Australia and Beijing, China. He received his Ph.D. degree in Electrical Engineering from the University of Melbourne, Australia in 2004 and his Bachelor degree in Electrical Engineering from Huazhong University of Science and Technology, China in 1999. In the past 3 years, he has been commercializing his Ph.D research and now IntelliGuard has customers in Australia, China and South Korea. At the same time, he is also doing VoIP security research in the department of Computer Science and Software Engineering, the University of Melbourne in Australia.