WTS 2009

Wireless Telecommunications Symposium 2009

Global Wireless Communications: A View from Europe

April 22 - 24, 2009

California State Polytechnic University, Pomona
Czech Technical University

Crowne Plaza Hotel Prague

WELCOME TO WTS 2009

Welcome to the eighth annual Wireless Telecommunications Symposium. We hope that WTS 2009: Global Wireless Communications: A View from Europe will be a stimulating and rewarding experience for you. Wireless communications is truly a global subject and an excellent one for an interdisciplinary, international wireless communications conference like WTS to explore. During the next three days WTS 2009 will explore global wireless communications in depth from a European perspective - in the presentations and regulatory and policy panel discussion of the invited speaker program, in the LTE Integration and Cellular TV Phone tutorials, and in the nine tracks of the accepted paper program: Ad Hoc and Sensor Networks, Mesh Networks, 802.11, Bluetooth, and RFID; Mobile Platform Operating Systems and Architectures, Integrated Wireless Systems; Signal Processing in Wireless Systems, QoS and Wireless Network Reliability; Wireless Algorithms, Methods, Simulations, and Software, Spectrum Management and Policy; Wireless Communications and Network Technologies; Wireless Communications: Military Aspects and Satellite Applications; Wireless Security; Wireless Services and Business; and Wireless Standards and Platforms.

The WTS 2009 Program Committee received 157 paper submissions, a WTS record, from authors representing 41 different countries. We thank all the authors who submitted papers and proposals to WTS 2009, the many reviewers who reviewed them, and the co-chairs, track chairs, and session chairs for coordinating the paper and proposal evaluation and selection process. We also thank the WTS Administration and Operations Committees and support personnel for their tireless efforts behind the scene. Producing an event like WTS 2009 is not an easy task, and they did a masterful job. In addition, the WTS Committee is grateful to the distinguished invited speakers representing the wireless telecommunications industry who have taken time to participate in WTS 2009.

WTS is again fortunate to have the support of the IEEE Communications Society as its technical co-sponsor. We also thank the IEEE Wireless Communications Technical Committee and the IEEE Joint CAS, COM and SP Chapter, Czechoslovakia (CS) Section for their technical support. Finally, special thanks go to the Czech Technical University's faculty and students for helping Cal Pomona host WTS 2009 and to the many organizations that have contributed to the effort or lent it financial support. Notable among the contributors and donors are Cal Poly Pomona's College of Business Administration and College of Engineering, its Computer Information Systems Department, Electrical and Computer Engineering Department, and Computer Science Department; Cal Poly Pomona's IEEE Communications Society Student Chapter; the IEEE Foothill Section; MESAQIN; T-Mobile Czech Republic; IGI Global; the IEEE Communications Society Foothill Chapter; and the IEEE Foothill AP/MTT Chapter.

On behalf of the WTS 2009 Committee -- Welcome to WTS 2009!

Dr. Steven Powell   Dr. Thomas Ketseoglou
WTS General Chair   WTS Assistant Chair

WTS 2009 Program

Wednesday, April 22	
8:00 am - 9:00 am	Registration
9:00 am – 9:15 am	Welcoming Remarks
9:15 am – 10:00 am	**Accepted Paper Presentations** Professor Achim Gottscheber Professor, Heidelberg University of Applied Sciences **"A Framework for the Service Delivery in Mobile Networks"** Co-Authors: Uma Shanker (University of London); Hamid Aghvami (King's College London) Dr. Natalia Ermolova Senior Research Scientist, Communications Laboratory Helsinki University of Technology **"Broadband High Power Amplifiers for Future Wireless Communication Systems"**
10:00 am – 10:30 am	Networking Break
10:30 am – 11:15 pm	**Dr. Francois Cosquer** CTO Security and Technology Strategist Alcatel Lucent Enterprise Business Group **"Mobility and Enterprise 2.0"**
11:15 am – 12:15 pm	LTE Technologies Tutorial **Bernd Haberland** Head of LTE Technology Integration Alcatel-Lucent Bell Laboratories **"Innovations and Candidate Technologies for LTE Advanced"**
12:30 pm - 2:00 pm	IEEE Communications Society Co-Sponsored Welcoming Lunch Guest Speaker: **Professor Paul Kuehn** Chair, Computer Networks and Communications Engineering University of Stuttgart

2:00 pm – 3:00 pm	**Dr. Jeannette Wing** Assistant Director of the Computer and Information Science and Engineering Directorate National Science Foundation I
3:00 pm – 3:30 pm	Networking Break
3:30 pm – 5:00 pm	Panel Discussion: Wireless Communications Regulation and Policy **"How can regulation help (or inhibit) innovative new services?"** Moderator: **Professor William Webb**, Ofcom Regulators: **Dr. Ruprecht Niepold,** European Commission, Information Society and Media DG **Fokko Bos,** Netherlands Ministry of Economic Affairs**,** Directorate General for Energy and Telecommunications Stakeholders: **Eduard Eck**, Telefonica O2 Czech Republic **Dr. Werner Mohr**; Nokia Siemens Networks
5:00 pm – 5:30 pm	Free Time
5:30 pm – 7:00 pm	Historical Tram Tour from the Crowne Plaza Prague to Vltava River Embankment
7:00 pm – 10:00 pm	Dinner Cruise on the Vltava River
10:00 pm – 10:30 pm	Tram Back to the Crowne Plaza Prague
Thursday, April 23	
8:00 am – 9:00 am	Registration

	Executive Session
9:00 am – 10:00 am	**Dr. Gee Rittenhouse –** VP of Bell Labs Research, Alcatel-Lucent "**Future of Wireless Communications**"
10:00 am – 10:15 am	**Networking Break**
10:15 am – 11:00 am	**Ing. Ladislav Možný** – VP Strategy, T-Mobile Czech Republic
11:00 am- 12:00 pm	**Professor Michael Walker** - Group Research and Development Director, Vodafone Group Plc
12:00 pm - 1:45 pm	Lunch Guest Speaker: **Professor William Webb** – Head of Research & Development, UK Office of Communications **"European Wireless at the Crossroads: Bit-pipe or not Bit-pipe?"**
2:00 pm – 3:00 pm	Cellular TV Phone Tutorial (I) **Dr. J. P. Shim** Professor, Mississippi State University **"Cell TV Phone: Current Status, Issues, Misconceptions, and Strategic Implications" (I)**
3:00 pm – 3:30 pm	Networking Break
3:30 pm – 4:30 pm	Cellular TV Phone Tutorial (II) **Dr. J. P. Shim** Professor, Mississippi State University **"Cell TV Phone: Current Status, Issues, Misconceptions, and Strategic Implications" (II)**
4:30 pm – 5:30 pm	Poster Paper Session
5:30 pm - 6:30 pm	WTS Organizers' Meeting
6:30 pm - 7:30 pm	Free Time
7:30 pm – 10:00 pm	Dinner with Czech Folklore Entertainment

Friday, April 24	
7:00 am – 8:00 am	Registration
8:00 am - 9:45 am	Accepted Paper Sessions (I)
9:45 am - 10:00 am	Networking Break
10:00 am - 11:45 am	Accepted Paper Sessions (II)
11:45 am - 1:15 pm	Lunch Guest Speaker: **Dr. Peter Stuckmann** Project Officer, Future Networks European Commission DG INFSO **"Research Priorities in Mobile and Wireless Communications"**
1:15 pm - 3:00 pm	Accepted Paper Sessions (III)
3:00 pm - 3:15 pm	Networking Break
3:15 pm – 5:00 pm	Accepted Paper Sessions (IV)
5:00 pm – 5:15 pm	Awards Ceremony for the Outstanding Paper Submitted and Presented and the Best Graduate and Undergraduate Student Papers Submitted and Presented Closing Remarks

Panel Discussions, Tutorials, and Workshops

Panel Discussion: Wireless Communications Regulation and Policy

Topic: How can regulation help (or inhibit) innovative new services?

Chair:

Professor William Webb
Head of Research and Development
UK Office of Communications (Ofcom)

Regulators:

Dr. Ruprecht Niepold
Advisor
European Commission
Information Society and Media DG

Fokko Bos
Netherlands
Senior Advisor, Information-Infrastructure
Ministry of Economic Affairs
Directorate-General for Energy and Telecommunications

Stakeholders:

Eduard Eck
Technical Strategy Manager
Telefonica O2
Czech Republic

Dr. Werner Mohr
Head of Research Alliances
Nokia Siemens Networks

Tutorials:

LTE Technologies: Innovations and Candidate Technologies for LTE Advanced

Instructor:
  Bernd Haberland
  Head of LTE Technology Integration
  Alcatel-Lucent Bell Laboratories

Cell TV Phone: Current Status, Issues, Misconceptions, and Strategic Implications

Instructor:

Dr. J. P. Shim

Professor of MIS and Director of International Business Strategy Program

John Grisham Master Teacher

Mississippi State University

WTS 2009 Accepted Paper Sessions
Friday, April 24, 2009

ROOM A
8:00 am – 9:45 am Session Chair: Dr. Zhikui Chen

A1 - Ad Hoc and Sensor Networks, Mesh Networks, 802.11, Bluetooth, and RFID
Track Chair: Dr. Floriano De Rango

LSAP: Low Storage Authentication Protocol for Cluster-Based Wireless Sensor Networks
Zhikui Chen (Dalian University of Technology, CN); Zhuang Shao (Software School Dalian University of Technology, CN); Xiaodi Huang (Charles Stuart University, AU); Yang Liu (Dalian University of Technology, CN)

An Adaptive Feedback Timing Control Mechanism for Delay-Constrained Data Aggregation in Wireless Sensor Networks
Zhikui Chen (Dalian University of Technology, CN); Song Yang (Dalian University of Technology, CN); Xiaodi Huang (Charles Stuart University, AU)

A Comparison of MANET Emulation Techniques for the Production of a Realistic Testbed with Global Communication Capabilities
William Palmer (Lancaster University, UK); Ben McCarthy (Lancaster University, UK); Christopher Edwards (Lancaster University, UK)

CHIRON: An Energy-Efficient Chain-Based Hierarchical Routing Protocol in Wireless Sensor Networks
Chieh-Chuan Hsiao (Feng Chia University, TW)

Performance Analysis of Assistant Nodes in Video Streaming over Wireless Ad-hoc Networks
Ali Nikoupour (Kerman University, IR); Mohammad Nikoupourdeylami (Amirkabir University of Technology, IR); Mehdi Dehghan (Amirkabir University of Technology, IR)

10:00 am - 11:45 am Session Chair Dr. Floriano De Rango

A2 - Ad Hoc and Sensor Networks, Mesh Networks, 802.11, Bluetooth, and RFID
Track Chair: Dr. Floriano De Rango

Improving SAODV Protocol with Trust levels management, IDM and Incentive Cooperation in MANET
Floriano De Rango (University of Calabria, IT)

A Performance Comparison between ROC-RSSI and Trilateration Localization Techniques for WPAN Sensor Networks in a Real Outdoor Testbed
Eduardo Cassano (University of Calabria, IT); Francesco Florio (University of Calabria, IT); Floriano De Rango (University of Calabria, IT); Salvatore Marano (University of Calabria, IT)

Adding Indoor Location Capabilities to an IEEE 802.11 WLAN using Real-Time RTT Measurements
Javier Prieto (CEDETEL, ES); Alfonso Bahillo (CEDETEL, ES); Santiago Mazuelas (CEDETEL, ES); Rubén Lorenzo (University of Valladolid, ES); Juan Blas (CEDETEL, ES); Patricia Fernández (University of Valladolid, ES)

Interference Mitigation in Co-Working IEEE 802.11n WLANs
Christos Papathanasiou (University of Thessaly, GR); Iordanis Koutsopoulos (UTH, GR); Leandros Tassiulas (University of Thessaly, GR)

A Path Management Scheme to Support Mobile Station in Wireless Mesh Networks for U-Healthcare Applications
JiLong Li (Kyungpook National University, KR)

Data Delivery Method in Mobile Body Area Sensor Networks
Ick-Soo Lee (Kyungpook National University, KR)

1:15 pm – 3:00 pm Session Chair Dr. Nour Murad

A3 - Ad Hoc and Sensor Networks, Mesh Networks, 802.11, Bluetooth, and RFID; Wireless Algorithms, Methods, Simulations, and Software, Spectrum Management and Policy

Track Chairs: Dr. Floriano De Rango; Dr. Timothy Matis

Low Energy Clustering Adaptation protocol for an Ad Hoc wireless sensor network

Nour Murad (University of Reunion, FR)

Laboratory Performance of Wi-Fi Point-to-Point Links: a Case Study

Jose Pacheco de Carvalho (University of Beira Interior, PT); Claudia Ribeiro Pacheco (University of Beira Interior, PT); Nuno Marques (University of Beira Interior, PT)

A Collision Free Data Link Layer Protocol for Wireless Sensor Networks

Mahmoud Meribout (Petroleum Institute, AE)

TALONet: A Power-efficient Grid-Based Congestion Avoidance Scheme Using Multi-detouring Technique in Wireless Sensor Network

Chun-Yi Li (Feng Chia University, TW)

A Near-Optimal Broadcast Technique for Vehicular Networks

Ai Ho (University of Central Florida, US); Yao Ho (University of Central Florida, US); Kien Hua (University of Central Florida, US); Roy Villafane (Andrews University, US)

Achieving Higher HSDPA Performance and Preserving R99 Soft Handover Control by Large Scale Optimization in CPICH Coverage Planning

Lei Chen (Linköping University, SE); Di Yuan (Linköping University, SE)

3:15 pm – 5:00 pm Session Chair Dr. Rong-Terng Juang

A4 - Mobile Platform Operating Systems and Architectures; Wireless Standards and Platforms

Track Chairs: Dr. Balázs Benyó; Dr. Qing-An Zeng

Packet Retransmission with Interference Cancellation for MIMO-OFDM Systems

Rong-Terng Juang (Industrial Technology Research Institute, TW); Kun-Yi Lin (National Taipei University of Technology, TW); Pangan Ting (Tsing Hua University, TW); Hsin-Piao Lin (National Taipei University of Technology, TW); Ding-Bing Lin (National Taipei University of Technology, TW)

Precoding Welch-bound signature sets

Eero Lehtonen (University of Turku, FI); Alexey Dudkov (University of Turku, FI); Jarkko Paavola (University of Turku, FI)

Supporting Mobile Streaming Services in Future Publish/Subscribe Networks

Konstantinos Katsaros (Athens University of Economics and Business, GR); Nikolaos Fotiou (Mobile Multimedia Lab, Athens University of Economics and Business, GR); George Polyzos (Athens University of Economics and Business, GR); George Xylomenos (Athens University of Economics and Business, GR)

Switch over implementation and analysis for hybrid wireless network of optical wireless and GHz links
Farukh Nadeem (University of Technology, Graz, AT)
Multi-cell and Multi-user Detection in Uplink for MIMO Systems
Jinyuan Chen (Beijng University of Posts and Telecommunications, CN); Jingyang Lu (Beijng University of Posts and Telecommunications, CN)
A 4 GHz Fully Integrated LC VCO in BiCMOS Technology
Hossein Mokari (Azad University (IAU), IR); Abbas Ali Lotfi Neyestanak (Islamic Azad University, Shahr_e_Rey Branch, IR

ROOM B
8:00 am – 9:45 am Session Chair Dr. Behrooz Rohani

B1 - Signal Processing in Wireless Systems, QoS and Wireless Network Reliability
Track Chair: Dr. Peter Farkas

On In-Service Perceptual Speech Quality Monitoring in Cellular Radio Systems
Behrooz Rohani (ERG Group, AU); Bijan Rohani (University of Western Australia, AU); Manora Caldera (WATRI, AU); Hans-Juergen Zepernick (Blekinge Institute of Technology, SE)
Prediction and Measurement of In-building Penetration Loss in Suburban, Urban and Dense Urban Areas at 2.5 GHz.
Osama Ata (Bethlehem University, IL)
Multi-Carrier CDMA BTS Power amplifiers and their design considerations.
Osama Ata (Bethlehem University, IL)
Interference management in frequency, time, and space domains for cognitive radios
On the Global Asymptotic Stability Problem of a Class of Wireless Systems
Jiemin Zhao, Beijing Union University
Efficiency Comparison of LDPC-LDGM and Raptor Codes for PL-FEC with Very Large Block Size
Rafael Montalbán Gutiérrez (Universidad Autónoma de Barcelona, ES); Gonzalo Seco Granados (Universitat Autonoma de Barcelona, ES)
Soft Iterative Channel Estimator for BICM-ID-SSD over Time-Varying Flat Fading Channels
Zohreh Andalibi (University of Saskatchewan, CA); Ha Nguyen (University of Saskatchewan, CA); Eric Salt (University of Saskatchewan, CA)
Fairness Resource Allocation in Downlink Multiuser OFDMA systems
H. Liming (Tsinghua University, CN); Xiaokang Lin (Tsinghua University, CN)

10:00 am - 11:45 am Session Chair Dr. Hilbert Habib

B2 - Signal Processing in Wireless Systems, QoS and Wireless Network Reliability
Track Chair: Dr. Peter Farkas

Estimating Maximum and Minimum Delays for Wireless Discrete Networked Control Systems
Gilbert Habib (CRAN,Nancy-University, CNRS, FR)
Marko Höyhtyä (VTT Technical Research Centre of Finland, FI); Tao Chen (VTT, FI); Aarne Mammela (VTT, FI)

Supporting Mobile Streaming Services in Future Publish/Subscribe Networks
Konstantinos Katsaros (Athens University of Economics and Business, GR); Nikolaos Fotiou (Mobile Multimedia Lab, Athens University of Economics and Business, GR); George Polyzos (Athens University of Economics and Business, GR); George Xylomenos (Athens University of Economics and Business, GR)

Assessment of Optimum Geometric Distribution of Anchors in non-GNSS Wireless Location Systems
Santiago Mazuelas (CEDETEL, ES); Alfonso Bahillo (CEDETEL, ES); Javier Prieto (CEDETEL, ES); Rubén Lorenzo (University of Valladolid, ES); Juan Blas (CEDETEL, ES); Patricia Fernández (University of Valladolid, ES); Franciso Lago (University of Valladolid, ES)

Rate Prioritized Power Adaptation for IEEE 802.11 WLANs
Puthusserypady Sadasivan (National University of Singapore, SG); Ram Krishnamurthy (National University of Singapore, SG)

Blind Correlation-Based DFE Receiver for the Equalization of Single Input Multi Output Communication Channels
Adem Coskun (University of Westminster, UK); Izzet Kale (University of Westminster, UK)

Cross-layer Delay-constrained Packet Scheduling over Multiuser Wireless Channels
Tae Eung Sung (Cornell University, US); Adam Bojanczyk (Cornell University, US)

1:15 pm – 3:00 pm Session Chair Dr. Letian Rong

B3 - Wireless Standards and Platforms
Track Chair: Dr. Qing-An Zeng

Comparison of Mobile TV Deployment Strategies in 3GPP LTE networks
Letian Rong (Orange Labs, FR); Salah Eddine Elayoubi (France Telecom R&D, FR)

Two Signatures' Codes Linear Decorrelator Detector for CDMA Systems
Ashraf Yahia Hassan (Cairo University, EG); Abdel Wahab Hussien (Cairo University, EG)

HSDPA in TD-SCDMA Relay Network
Yan Sun (Queen Mary, University of London, UK); Laurie Cuthbert (Queen Mary, University of London, UK)

An Enhanced MBMS Power Control Mechanism towards Long Term Evolution
Christos Bouras (University of Patras, GR); Antonios Alexiou (University of Patras, GR); Vasileios Kokkinos (University of Patras and RACTI, GR)

On Network Processor Based Protocol Stack Implementation for 4G Base Stations
Christopher Holmes (Fraunhofer Institute for Telecommunications, Heinrich-Hertz-Institut, DE); Andreas Ibing (Fraunhofer Institute for Telecommunications, Heinrich-Hertz-Institut, DE); David Kühling (Fraunhofer Institute for Telecommunications, Heinrich-Hertz-Institut, DE)

ARQ parameters for VoIP in IEEE 802.16 networks
Henrik Martikainen (University of Jyväskylä, FI); Olli Alanen (Magister Solutions Ltd., FI); Alexander Sayenko (Nokia, FI)

Automotive Multi-standard RF Front-end for GSM, WCDMA and Mobile WiMAX
Irene Herranz (BMW Group Research and Technology, DE); Stefan Fikar (BMW Group Research and Technology, DE); Arpad Scholtz (Vienna University of Technology, AT); Erwin Biebl (Technische Universität München, DE)

3:15 pm – 5:00 pm Session Chair Dr. Benjamin Khoo

B4 - Wireless Security; Wireless Algorithms, Methods, Simulations, and Software, Spectrum Management and Policy
Track Chairs: Dr. Benjamin Khoo; Dr. Timothy Matis

Security Risk Analysis of RFID Technology: A RFID Tag Life Cycle Approach
Benjamin Khoo, New York Institute of Technology

CRINet: A Secure and Fault-tolerant Data Collection Scheme Using 3-Way Forwarding and Group Key Management in Wireless Sensor Network
Shih-Chieh Tai (Feng Chia University, TW)

New Attacks on UMTS Network Access
Zahra Ahmadian (Iran Telecommunication Research Center, IR); Somayeh Salimi (Iran Telecommunication Research Center, IR); Ahmad Salahi (Iran Telecommunication Research Center, IR)

3G-WLAN Interworking: Security Analysis and New Authentication and Key Agreement based on EAP-AKA
Hyeran Mun (Korea Advanced Institute of Science and Technology, KR); Kyusuk Han (Information and Communications Univ., Korea, KR); Kwangjo Kim (Information Communications Univ, KR)

Impact of channel-dependent variation of path loss exponent on Wireless Information-Theoretic Security
Theofilos Chrysikos (University of Patras, GR); Stavros Kotsopoulos (Wireless Telecommunications Laboratory, GR)

Versatile Algorithms for Accurate Indoor Geolocation
G. M. Roshan Indika Godaliyadda (National University of Singapore, SG); Hari Krishna Garg (National University of Singapore, SG)

Analysis of Threshold of Regular and Irregular LDPC Codes Using Gaussian Approximation
Chia-lu Ho (National Central U, TW)

ROOM C
8:00 am – 9:45 am Session Chair Dr. Fumio Ishizaki

C1 - Wireless Algorithms, Methods, Simulations, and Software, Spectrum Management and Policy
Track Chair: Dr. Timothy Matis

Throughput Performance of Quantized Proportional Fair Scheduling with Adaptive Modulation and Coding
Fumio Ishizaki (Nanzan University, JP); Gang Uk Hwang (KAIST, KR)
Trend Analysis Pilot Aided Channel Estimation in OFDM Systems
Mohamed Moustafa Abd-El Aziz Moustafa (Akhbar El Yom Academy, Egypt, EG)
Phase Noise Modelling and Mitigation Techniques in OFDM Communications Systems
Ville Syrjälä (Tampere University of Technology, FI); Mikko Valkama (Tampere University of Technology, FI); Nikolay Tchamov (Tampere University of Technology, FI); Jukka Rinne (Tampere University of Technology, FI)
Performance of Adaptive Algorithms for Compensation of Radio over Fiber Links
Atso Hekkala (VTT Technical Research Centre of Finland, FI); Mika Lasanen (VTT Technical Research Centre of Finland, FI)
Implementation and Performance of Low Complexity SIMO OFDM Timing Synchronization
Mika Lasanen (VTT Technical Research Centre of Finland, FI); Matti Weissenfelt (VTT Technical Research Centre of Finland, FI); Jari Perttu (VTT Technical Research Centre of Finland, FI); Aaron Byman (Elektrobit, FI)
Phase Noise Modelling and Mitigation Techniques in OFDM Communications Systems
Ville Syrjälä (Tampere University of Technology, FI); Mikko Valkama (Tampere University of Technology, FI); Nikolay Tchamov (Tampere University of Technology, FI); Jukka Rinne (Tampere University of Technology, FI)
New Decision Feedback Channel Estimation for OFDM Systems
Masoud Hoseinzade (K.N.Toosi University of Technology, IR); Kamal Mohamed-pour (K.N.Toosi University of Technology, IR); Seyed Mehdi Hosseini Andargoli (K.N.Toosi University of Technology, IR); Hazhir Shokri Razaghi (K. N. Toosi University of Technology, IR)

10:00 am - 11:45 am Session Chair Dr. Chunhe Song

C-2 Wireless Algorithms, Methods, Simulations, and Software, Spectrum Management and Policy
Track Chair: Dr. Timothy Matis

Asynchronous Distributed PF Algorithm For WSN Target Tracking
Chunhe Song (Northeastern University, CN)
A Radio Resource Scheduling Algorithm Considering Wireless Channel Characteristics in IEEE 802.16 OFDMA Systems
Jaeyeon Lee (Samsung Thales, KR)
Power saving control for the mobile DVB-H receivers based on H.264/SVC standard

Eugeniy Belyaev (Saint-Petersburg State University of Aerospace Instrumentation, RU); Anna Ukhanova (Saint-Petersburg State University of Aerospace Instrumentation, RU); Vitaly Grinko (Saint-Petersburg State University of Aerospace Instrumentation, RU)

An Efficient Multiuser Scheduling Scheme For MIMO-CDMA Wireless Systems
Elmahdi Driouch (Universite du Quebec à Montreal, CA); Wessam Ajib (Universite de Quebec a Montreal, CA)

Alamouti Coded Wavelet based OFDM for Multipath Fading Channels
Volkan Kumbasar (Gebze Institute of Technology, TR); Oguz Kucur (Gebze Institute of Technology, TR)

Searching Better Wavelet Packet Tree for ISI and ICI Reduction in WOFDM
Volkan Kumbasar (Gebze Institute of Technology, TR); Oguz Kucur (Gebze Inst. of Technology, TR)

1:15 pm – 3:00 pm Session Chair Dr. Imad Jawhar

C-3 Wireless Algorithms, Methods, Simulations, and Software, Spectrum Management and Policy
Track Chair: Dr. Timothy Matis

A Flexible Object-Oriented Design of an Event-Driven Wireless Network Simulator
Imad Jawhar (United Arab Emirates University, AE)

A Hierarchical and Topological Classification of Linear Sensor Networks
Imad Jawhar (United Arab Emirates University, AE); Nader Mohamed (United Arab Emirates University, AE)

Cooperative Relay Channel with LDPC Codes Constructed from Array Codes
Mingkwan Somphruek (Newcastle University, UK)

RRTP: Remote to Remote Transfer Protocols
Tae-Gyu Lee (ChungBuk National University, KR)

SOCP approach for reducing PAPR for system OFDMA subband via Tone Reservation
Souad ZID (National Engineering School of Tunis, TN)

Adaptive Decoding Algorithms of Magnetic Wave Communication Systems for Sensor Networks in Harsh Environments
Yun Jae Won (Korea Electronics Technology Institute, KR)

3:15 pm – 5:00 pm Session Chair Dr. Izabella Lokshina

C-4 - Wireless Algorithms, Methods, Simulations, and Software, Spectrum Management and Policy
Track Chair: Dr. Timothy Matis

Modeling and Simulation of Self-Similar Wireless IP Network Traffic
Dimitar Radev (University of Russe, BG); Izabella Lokshina (SUNY

Oneonta, US)

Use of Extrinsic Information Transfer Chart to Predict Behavior of Turbo Codes
Teodor Iliev (University of Rousse, BG); Izabella Lokshina (SUNY Oneonta, US); Dimitar Radev (University of Russe, BG)

Mobile Advertisement System using Data Push Scheduling based on User Preference
Youngsuk Kim (KTF, KR)

Decision Making in Next Generation Networks Using Fuzzy Systems
Hormoz Parsian (Iran University of Sci & Tech, IR); Soroush Mohammad Mirzaei Zarandi (Iran University of Sci & Tech, IR); Omidabedi Davarani (IUST, IR); Reza Berangi (Iran University of Science and Technology, IR)

Theoretical Derivation of Bit Error Rate in MB-OFDM UWB System
Ryouhei Kaneko (Waseda University, JP); Fumiaki Maehara (Waseda University, JP)

Stability Based Criterion for Call Admission Control in Wireless Cellular Networks
Abdorasoul Ghasemi (Amirkabir University of Technology, IR); Abdorasoul Zarei (Iran Telecommunication Research Center, IR); S. Mohammad Razavizadeh (Iran Telecomm. Research Center, IR)

ROOM D
8:00 am – 9:45 am Session Chair Dr. Farzad H. Panahi

D-1 - Wireless Algorithms, Methods, Simulations, and Software, Spectrum Management and Policy
Track Chair: Dr. Timothy Matis

A Finger Assignment Method for Rake Receivers Based on Wavelet Decomposition over Multiple Access Systems
Farzad H. Panahi (Iran University of Science & Technology (IUST), IR); Abolfazl Falahati (Iran University of Science and Technology, IR)

The impact of queuing and call setup delays on UMTS spectrum sharing algorithm
Gbenga Salami (University of Surrey, UK); Shyamalie Thilakawardana (University of Surrey, UK); Rahim Tafazolli (University of Surrey, UK)

Quantization Based Reliable Equalization Algorithm for Turbo DFE and Dual-Mode Blind Equalizers
Abhishek Joshi (College of Engineering, Seoul National University, KR)

Cooperative Relay Channel with LDPC Codes Constructed from Array Codes
Mingkwan Somphruek (Newcastle University, UK)

Parallel Decoding of Turbo Codes Using Multi-point Trellis Termination and Collision-Free Interleavers
Mustafa Taskaldiran (University of Westminster, UK); Richard Morling (University of Westminster, UK); Izzet Kale (University of Westminster, UK)

Fast Parallel Weighted Bit Flipping Decoding Algorithm for LDPC Codes
Miroslav Vanek (Alcatel-Lucent, SK); Peter Farkas (Slovak University of

Technology, SK)

10:00 am - 11:45 pm Session Chair Dr. Vasily Aristarkhov

D-2 - Wireless Algorithms, Methods, Simulations, and Software, Spectrum Management and Policy; Wireless Communications and Network Technologies
Track Chairs: Dr. Timothy Matis; Dr. Ehsan Sheybani

Low complexity as whole signal detection algorithm for frequency-selective fading channels
Vasily Aristarkhov (Nizhniy Novgorod State Technical University, RU)
An Enhanced Synchronization Receiver for UWB Multiband-OFDM
Uk Her, Sejong University
Towards unified service conflict management in IMS
Hua Liu (Beijing University of Posts and Telecommunications, CN); Fangchun Yang (Beijing University of Posts and Telecommunications, CN)
Reducing Handover Drops by Utilizing Comparative Queuing
Ali Zavabeti (Monash University, AU); Majid Sarvi (Monash University, Australia, AU)
Channel-Aware Inter-Cell Interference Coordination for the Uplink of 3G LTE Networks
Mohammed Al Rawi (Helsinki University of Technology, FI); Riku Jantti (Helsinki University of Technology, FI); Johan Torsner (Ericsson Research, FI); Mats Sagfors (Oy LM Ericsson Ab, FI)
Low-power wireless microsystems for use with thermoelectric scavenging systems
Joao Carmo (University of Minho, PT); Rui Rocha (Univ of Minho, PT); Alexandre Silva (Univ of Minho, PT); Paulo Mendes (University of Minho, PT); Luis Goncalves (Univ of Minho, PT); José Correia (University of Minho, PT)
A low-cost wireless sensor network for industrial applications
Joao Carmo (University of Minho, PT); Paulo Mendes (Univ of Minho, PT); Carlos Couto (Univ of Minho, PT); José Correia (University of Minho, PT)

1:15 pm – 3:00 pm Session Chair Dr. Natalia Kryvinska

D-3 - Wireless Services and Business
Track Chair: Dr. Natalia Kryvinska

On The Internationalization of European Wireless Telecommunications Service Providers
Steven Powell (California State Polytechnic University, Pomona, US)
Mediation of the Message in a Wireless Global Environment: Revisiting the Media Gatekeeping Model
Vassiliki Cossiavelou (Aegean University, GR)
Mobility in a Multi-location Enterprise Network, Case Study: Global Voice Calls Placing
Natalia Kryvinska (School of Business, Economics and Statistics, University of Vienna, AT)
The StoLPan view of the NFC ecosystem

Balázs Benyó (Budapest University of Technology and Economics, HU); Levente Kovacs (Budapest University of Technology and Economics, HU); András Vilmos (SafePay, HU); Fördős Gergely (Budapest University of Technology and Economics, HU); Bálint Sódor (Budapest University of Technology and Economics, HU)

Value Analysis of Technology Evolution: Case Mobile Peer-to-Peer Communications
Mikko Heikkinen (TKK, FI); Sakari Luukkainen (TKK, FI)

3:15 pm – 5:00 pm Session Chair Dr. Jan Holub

D-4 - Wireless Communications and Network Technologies; Military Aspects and Satellite Applications
Track Chairs: Dr. Ehsan Sheybani; Dr. Eli Olinick

End-to-End Network Simulator for Conversational Quality Measurements
Jan Holub (FEE CTU Prague, CZ)

Optimal First Header Decoding for the DVB-S2 Satellite Waveform
Balasubramanian Ramakrishnan (MITRE Corporation, US)

Adaptive rate control (ARC) over DVB-RCS on Satellite Links
Surasee Prahmakew (Assumption University, TH)

Development and implementation of authenticated multi-user mobile Java applications
Jethro Shell (Panasonic Computer Products (Europe), UK)

High-speed Short-range Systems for Wireless Personal Area Networks
Hing Keung Lau (The Open University of Hong Kong, HK)

Voltage Controlled Crystal Oscillator (VCXO) Circuits
Ajay Poddar (Synergy Microwave Corporation, US); Ulrich Rohde (Synergy Microwave Corp., US)

Reconfigurable Resistive Passive FET Mixer
Ulrich Rohde (Synergy Microwave Corp., US); Ajay Poddar (Synergy Microwave Corporation, US)

Speaker Biographies

Fokko Bos is senior advisor in the Directorate General for Energy and Telecommunications of the Ministry of Economic Affairs in The Netherlands. He is responsible for international telecommunications regulation and spectrum management. He is actively involved in the negotiations on the EU new regulatory framework and is a member of the EU Radio Spectrum Policy Group. He participates in the Electronic Communications Committee of CEPT and has headed the Netherlands delegation to the WRC-07. Mr. Bos holds a Degree in Economics of the University of Groningen.

Dr. Francois Cosquer is CTO Security and Technology Strategist for the Alcatel-Lucent Enterprise Business Group. Over the past 16 years, he has held senior positions with research institutions, equipment vendors and telecommunications operators. He draws on extensive experience in security architecture, networking, operating systems, middleware and multimedia applications. He has been speaker, panelist and chair at key industry events and conferences. François graduated in Electronics and Computing and holds an MSc in Computer Science and a Ph.D. in Computer Engineering. He currently serves as Adjunct Professor at the Faculty of Engineering and Computer Science, University of Concordia, Montreal.

Bernd Haberland is Head of Radio Research for Alcatel-Lucent Bell Laboratories in Stuttgart and manager of the R&I strategic project "Radio Protocols and BTS Nodes" coordinating research teams in Stuttgart and Shanghai. In addition, he is Alcatel MRD delegate for the 3GPP RAN plenary standardization meetings and a core member of the Evolium process organization.

Bernd joined Alcatel-SEL in January 1984. For the past 20 years, he has had several responsibilities in the development, integration, customer validation and research in Mobile Communications. Since the merger of Alcatel-Lucent he has headed the wireless research domain worldwide inside Bell Labs, and now leads the LTE Technology integration inside Bell Labs, where Bell Labs innovations across all research domains are put together from the end-to end perspective. Bernd's team is at the forefront of LTE and beyond systems and is providing the Alcatel-Lucent LTE demonstrator at a very early stage, which was exhibited at the 3GSM 2007 and 2008 in Barcelona. Breakthrough technologies his team is working on include cognitive and self-configuration radio, which enables next generation plug-and play base-stations capable of adapting themselves to (fragmented) frequency bands and standards, and technologies for LTE advanced such as MIMO, Network MIMO, beamforming and Interference Management.

Bernd was born 1956 in Stuttgart. He studied at the University of Erlangen/Nürnberg in Germany and received his Dipl. Ing. degree in 1983 in the areas of Communication Technology, Digital Signal Processing and Computer Science. He received an Alcatel Fellow award in 2004.

Professor Paul J. Kühn received the Dipl.-Ing. and Dr.-Ing. degrees in Electrical Engineering from the University of Stuttgart, Germany, in 1967 and 1972, respectively. From 1973 to 1977, he was head of a research

group for traffic research in computer and communications systems at the University of Stuttgart. In 1977, he joined Bell Laboratories, Holmdel, NJ., where he worked in the field of computer communications. In 1978, he was appointed professor for Communications Switching and Transmission at the University of Siegen, Germany. Since 1982, he is holding the chair of Communication Networks and Computer Engineering at the University of Stuttgart, Germany. His areas of interest are communication network architectures and protocols, computer engineering, performance modelling and evaluation, wherein he authored more than 100 technical publications.

Professor Kühn is a member of IEEE, ACM, ITG (German Information Technology Society), and GI (German Informatics Society). He has been appointed member of Communications Switching Committee of the ITG, IFIP Working Groups 6.2, 6.3 and 7.3 and International Advisory Council (IAC) of the International Teletraffic Congress (ITC). He was appointed Vice President of the ITC in 1985, and Governor of the ICCC in 1987. 1989 Professor Kühn has been elected Fellow IEEE. He was Program Chairman of ICCC 1986, Conference Chairman and Co-Chair of the IFIP Conferences "Broadband Communications" in 1998 and 1999, respectively, of various national conferences on Computer Communication and Performance Modelling, Editor and Guest Editor in the areas of Communication Networks for ETT and IEEE-JSAC. In 1991, Professor Kühn was appointed Professeur Associé at the Télécom Paris/ENST. 1991 Professor Kühn has been elected Chairman of the International Advisory Council IAC of the International Teletraffic Congress (ITC). In 1993, he was appointed Member of the Academy of Sciences of Heidelberg, Germany, and in 1995, Member of the Academy Leopoldina, Halle. In 1996, Professor Kühn has been awarded Dr. h.c. for Technology by the Lund Institute of Technology, Sweden, and in 1998 Dr.-Ing. E. h. by the University of Technology of Dresden, Germany. 1998 he was appointed Honorary Member of the Senat of the University of Mannheim, Germany, for his support of the new department of Computer Engineering. Also in 1998, he received the Christopher Columbus Gold Medal from the Council of the City of Genova, Italy, for his contributions in the field of telecommunications. Other honors Professor Kühn has received include the Order Palmes Academiques by the French Government in 2003, the Eduard-Rhein Prize for Fundamental Studies in Traffic Theory in 2003, IEEE Life Fellow in 2008, and Honorary Member of the German Association for EE in 2008.

Professor Kühn has held various responsible academic, research and industrial positions, among them Chairmann of the Board of the CTIT of

the University of Twente, Coordinator of the DFG Research Centre Program on Mobile Communications, Chairman of the Graduate College Program "Parallel and Distributed Systems", Dean of the Faculty of Electrical Engineering and Course Director of the international Master of Science Program "Information Technology" at the University of Stuttgart. For more than 10 years Professor Kühn served as a member of the Board of Directors of communication technology companies.

Werner Mohr was graduated from the University of Hannover, Germany, with the Master Degree in electrical engineering in 1981 and with the Ph.D. degree in 1987. From 1987 – 1990 he has been senior engineer at the Institute of High-Frequency Technology at the University of Hannover.

Dr. Werner Mohr joined Siemens AG, Mobile Network Division in Munich, Germany in 1991. He has been involved in the European RACE-II Project ATDMA. From 1995 to 1996 he was active in ETSI SMG5 for standardization of UMTS. Since December 1996 he was project manager of the ACTS FRAMES Project until the project finished in August 1999. This project developed the basic concepts of the UMTS radio interface. Since April 2007 he is with Nokia Siemens Networks GmbH & Co. KG in Munich Germany. Werner Mohr is Head of Research Alliances at Nokia Siemens Networks. He was involved in the 5th Framework Program of the EU. Werner Mohr was the coordinator of the WINNER Project in Framework Program 6 of the European Commission and chairman of WWI (Wireless World Initiative) and he is now coordinator of the Eureka Celtic project WINNER+. In addition, he is vice chair of the eMobility European Technology Platform. Werner Mohr was chair of the "Wireless World Research Forum – WWRF" from its launch in August 2001 up to December 2003. He is member of VDE and Senior Member of IEEE. 1990 he received the Award of the ITG (Information Technology Society) in VDE (Association for Electrical, Electronic & Information Technologies, Germany). He is board member of ITG in VDE, Germany for the term 2006 to 2008 and re-elected for the term 2009 to 2011. Werner Mohr is co-author of a book on "Third Generation Mobile Communications".

Dr. Ruprecht Niepold is affiliated with in the Directorate General for Information Society and Media of the European Commission. Mr.Niepold holds a Degree of Electrical Engineering of the Technical University of Karlsruhe and a PhD of the University of Stuttgart. As of 1977 he has worked at the Fraunhofer Gesellschaft in applied research for industry in the field of industrial automation before joining the European Commission

in 1989 where he became responsible for relations with Japan and South East Asia in the field of telecommunications policy. As of 1997 he led the unit dealing mobile and satellite communications regulatory aspects. Between 2003 and 2008 he headed the unit in charge of developing radio spectrum policy from a Community perspective. Since May 2008 he advises the Director General of the Directorate General for Information Society and Media on radio spectrum policy.

Dr. Gee Rittenhouse is Vice President of Bell Labs Research, overseeing all Bell Labs research centers and research activities. Prior to this he headed the Bell Labs' Technology Integration Group, with the primary mission of taking Bell Labs research assets and innovations and driving them, through development activities and project management, into Alcatel-Lucent products and services. In this position Gee was closely connected with all of Alcatel-Lucent's business divisions, interlocking their needs and strategies with Bell Labs' research activities, priorities, and innovations areas. Prior to heading up Technology Integration, Gee was Vice President, Bell Labs Wireless Research.

He received his Bachelor of Science degree in physics from the University of California, Los Angeles in 1986. Then in 1993 he received his Ph.D. degree in Electrical Engineering and Computer Science from the Massachusetts Institute of Technology. He joined Bell Laboratories as a member of technical staff in 1993 where he worked on high-speed circuits using X-ray lithography for optical networking applications. He later joined the Wireless Research Laboratory at Bell Laboratories where his research focused on RF front-end radio architectures and cellular system engineering. In 2000 he was promoted to Director of the Wireless Technology Research Department and led several projects including MIMO system development, cellular network optimization, wireless IP networks, and fourth generation wireless systems. In 2002 he received the Bell Labs Fellow Award. He has numerous publications and patents in the areas of communications and circuits.

Dr. J.P. Shim, John Grisham Faculty Excellence recipient, is Professor of MIS and Director of the International Business Strategy Program at Mississippi State University. He received his Ph.D. from University of Nebraska, MBA from Seoul National University, and completed the Harvard Business School Executive Education Program. Professor Shim won MSU's prestigious 2006 Ralph E. Powe Research Excellence Award and received numerous grants and awards, including NSF, DOE, Microsoft, Booz-Allen & Hamilton, U.S. EPA, Mississippi Institution of

Higher Learning, Korea Sanhak (school-industry) Foundation, and is a eight-time recipient of outstanding faculty awards. Professor Shim has authored and co-authored over 150 research articles, including Communications of the ACM, IEEE, Journal of AIS, Decision Support Systems, Interfaces, CAIS, Computers & Operations Research, Journal of the Operational Research, and other leading journals. He consulted with Booz-Allen & Hamilton, EPA, and several other ICT companies. He was a keynote speaker at International Conference on Ubiquitous Computing, a frequent speaker at companies and universities in 15 different countries. He currently serves as Senior Editor and Editorial Board Member for numerous journals. His current research interests are DMB, wireless telecommunications, DSS, podcasting, and blog.

Dr. Peter Stuckmann is Project Officer with the European Commission, Directorate-General Information Society and Media, where he is managing the research cluster on Mobile and Wireless Communications as part of the European Research Programme FP7. Before his appointment at the European Commission in 2004 he has occupied several engineering and managerial positions both in industry and academia in the area of radio interface engineering. Dr. Stuckmann is the author of the text book "The GSM Evolution", Wiley & Sons, 2002, 2 book contributions, more than 20 journal and conference publications and one patent. He is member of the IEEE and the German VDE/ITG. Dr. Stuckmann holds engineering and doctoral degrees from RWTH Aachen University, Germany.

Professor Michael Walker is the Group Research and Development Director for the Vodafone Group of companies, with the responsibility for the Group's research activities, intellectual property and technology standards worldwide. He also leads technology innovation and manages engagement with start-up companies. He is a member of the board of Vodafone Ventures, the venture capital arm of the company. Michael holds the Vodafone Chair in Telecommunications at Royal Holloway, University of London, as a part-time professor, is a visiting professor at the University of Surrey, and is Vice Chairman of the mobile VCE - a group of universities and industries researching mobile communications. He sits on scientific advisory boards for the Universities of Warwick and Surrey, the London Development Agency and the UK Government, and some start-up companies. He has held a number of positions with standards bodies, including chairmanship of the body responsible for the security aspects of UMTS. Before joining Vodafone, Michael was Head of Mathematics at Racal Research, and prior to that an academic at the

University of Tuebingen in Germany. Michael is a Fellow of the Royal Academy of Engineering.

Professor William Webb joined Ofcom as Head of Research and Development and Senior Technologist in 2003. Here he manages a team providing technical advice and performing research across all areas of Ofcom's regulatory remit. He also leads some of the major reviews conducted by Ofcom including the Spectrum Framework Review and development of Spectrum Usage Rights. Previously, William worked for a range of communications consultancies in the UK in the fields of hardware design, computer simulation, propagation modelling, spectrum management and strategy development. William also spent three years providing strategic management across Motorola's entire communications portfolio, based in Chicago. Some of his seminal work included the first papers and patents on variable multi-level modulation - now widely employed in most cellular and WiFi systems.

William has published ten books, sixty papers, and four patents ranging across the entire field of wireless communications including in 2007 "Wireless Communications: The Future". He is a Visiting Professor at Surrey University and DeMontfort University and a Fellow of the Royal Academy of Engineering - the UK's premier body representing engineering. He is a member of the Board of Trustees and Fellow of the IET (the UK equivalent of the IEEE) and has sat on the judging panel of the Wall Street Journal's "Annual Innovation Awards" since 2002. He was general chair of the IEEE DySpan conference in 2007. His biography is included in multiple "Who's Who" publications around the world and in Debrett's "People of Today". William has a first class honours degree in electronics, a PhD and an MBA. He can be contacted at william.webb@ofcom.org.uk.

Dr. Jeannette M. Wing is the President's Professor of Computer Science in the Computer Science Department at Carnegie Mellon University. She received her S.B. and S.M. degrees in Electrical Engineering and Computer Science in 1979 and her Ph.D. degree in Computer Science in 1983, all from the Massachusetts Institute of Technology. From 2004-2007, she was Head of the Computer Science Department at Carnegie Mellon. Currently on leave from CMU, she is the Assistant Director of the Computer and Information Science and Engineering Directorate at the National Science Foundation.

Professor Wing's general research interests are in the areas of specification and verification, concurrent and distributed systems, programming languages, and software engineering. Her current focus is on the foundations of trustworthy computing.

Professor Wing was or is on the editorial board of eleven journals. She has been a member of many advisory boards, including: the Networking and Information Technology (NITRD) Technical Advisory Group to the President's Council of Advisors on Science and Technology (PCAST), the National Academies of Sciences' Computer Science and Telecommunications Board, ACM Council, the DARPA Information Science and Technology (ISAT) Board, NSF's CISE Advisory Committee, Microsoft's Trustworthy Computing Academic Advisory Board, and the Intel Research Pittsburgh's Advisory Board. She is a member of the Sloan Research Fellowships Program Committee. She is a member of AAAS, ACM, IEEE, Sigma Xi, Phi Beta Kappa, Tau Beta Pi, and Eta Kappa Nu. Professor Wing is an AAAS Fellow, ACM Fellow, and IEEE Fellow.

IEEE - Foothill Section
Upland, California

MESAQIN

T-Mobile Czech Republic
Sponsor of the WTS 2009 Paper Competitions

IGI Global

Technical Co-Sponsors

IEEE Communications Society

IEEE COMMUNICATIONS SOCIETY

IEEE Communications Society Technical Committee on
Wireless Telecommunications

IEEE COMMUNICATIONS SOCIETY

**IEEE Joint CAS, COM and SP Chapter, Czechoslovakia (CS)
Section**

CAS, COM and SP chapter
CS Section

Contributors

IEEE Communications Society Foothill Chapter

IEEE MTT/AP Foothill Chapter

SWIFT (Students With an Interest in the Future of Telecommunications) is Cal Poly Pomona's student branch chapter of the IEEE Communications Society. SWIFT is chartered by the College of Business and open to all Cal Poly Pomona students interested in telecommunications and networking. SWIFT was created in 1990 with the objective of enhancing and enriching the students' learning experience and preparing students for careers in the telecommunications and networking industry. Some of the ways in which SWIFT attempts to achieve this objective include: inviting speakers to Cal Poly to discuss the latest technologies, industry practices, and career trends; co-hosting telecommunications and networking seminars and symposia; holding "hands-on" workshops; and hosting social events.

Wireless Telecommunications Symposium Committees

Steven Powell, WTS General Chair Cal Poly Pomona srpowell@csupomona.edu	Thomas Ketseoglou, WTS Assistant Chair Cal Poly Pomona tketseoglou@csupomona.edu

Program Committee

J. P. Shim, WTS Program Committee Chair Mississippi State University jshim@cobilan.msstate.edu

Jan Holub, WTS 2009 Program Committee Co-Chair Czech Technical University holubjan@fel.cvut.edu	Izabella Lokshina, WTS 2009 Program Committee Co-Chair SUNY Oneonta lokshiv@oneonta.edu

Qing-An Zeng, WTS 2009, Tutorials & Workshops Chair University of Cincinnati qing.zeng@uc.edu

Jae-Hyeon Ahn, KAIST Business School Hussain Al-Rizzo, UALR Michael Bartolacci, Penn State Chatshick Bisdikian, IBM Research Suk-Gwon Chang, Hanyang University Richard Cockrum, Cal Poly Pomona Francois Cosquer, Alcatel-Lucent Vassiliki Cossiavelou, Aegean University Floriano De Rango, University of Calabria, Italy Sasha Dekleva, DePaul University Francisco Martin del Campo, Universidad Iberoamericana Daniel Devasirvatham, SAIC Peter Farkas, Slovak University of Technology Robert Frueholz, Aerospace Corporation Rajit Gadh, UCLA Stephane Gagnon, Université du Québec en Outaouais Ivan Guardiola, Texas Tech	Tulin Mangir, CSU Long Beach Qusay Mahmoud, University of Guelph, Canada Timothy Matis, Texas Tech University Seshadri Mohan, UALR Mohamed Moustafa, Arab Information Union Mullaguru Naidu, QUALCOMM Ilkka Niva, Nokia Eli Olinick, SMU Sungmin Park, Brunel University, UK Katia Passerini, NJIT Keyukumar Patel, Box Hill Institute of TAFE Lin Qingping, Nanyang Technological University Jason Redi, BBN Kui Ren, Illinois Institute of Technology George Rittenhouse, Bell Laboratories Salam Salloum, Cal Poly Pomona Leonard Schiavone, MITRE Ehsan Sheybani, Virginia State University Jarmo Takala, Tampere Institute of Technology

University
Amoakoh Gyasi-Agyei, Central Queensland University
Peter Hambuch, Motorola
Jan Holub, Czech Technical University
Dwight Holmes, Jet Propulsion Laboratory
Rose Hu, Sprint-Nextel
James Kang, Cal Poly Pomona
Jeyhan Karaoguz, Broadcom
Dan Kim, University of Houston - Clear Lake
Hisashi Kobayashi, Princeton University
Abdullah Konak, Penn State University
Francine Krief, Ecole Nationale Supérieure d'Electronique, Informatique et Radiocommunications de Bordeaux
Natalia Kryvinska, University of Vienna
Cees Lanting, Centre Suisse d'Electronique et de Microtechnique SA
Khaled Letaief, Hong Kong University of Science & Technology
Huan Li, Beihang University, China
Xian Liu, UALR
Yun Liu, Beijing Xiaotong University
Izabella Lokshina, SUNY Oneonta
Wenjing Lou, Worcester Polytechnic Institute

Upkar Varshney, Georgia State University
Bin Wang, Wright State University
Takashi Watanabe, Shizuoka University
Stephen Weinstein, Columbia University
Roger Whitaker, University of Cardiff
Hsiao-Chun Wu, LSU
Kui Wu, University of Victoria, Canada
Mingbo Xiao, Xiamen University
Chunsheng Xin, Norfolk State University
Halim Yanikomeroglu, Carleton University
Wei Ye, Bravotech Inc.
Quin-An Zeng, University of Cincinnati
Hong Zhou, University of Southern Queensland

Administration & Operations

Steven Curl, Administration Chair Cal Poly Pomona	Henry Wu, Operations Chair Cal Poly Pomona

Kathleen Butikofer, Administrative Coordinator, Cal Poly Pomona
Kathy Byrum, Administrative Coordinator, Cal Poly Pomona
Kevin Davis, Information Technology, Cal Poly
Wendy Jao, Web Programming, Cal Poly Pomona
Wendy Jett, Co-Sponsorships, Cal Poly Pomona
Chris Navin, SWIFT President, Cal Poly Pomona