

TPC Chair Listing

Co-TPC Chairs

Dr. William Lee
LinkAir Corporation

Dr. Steven Gray
Intel Copropration

Antennas and Propagation (01)

Track Chair: Prof. John L. Volakis, Ohio State

Henry Bertoni
Polytechnic University

Philip Constantinou
National Technical University of Athens

Thomas Eibert
FGAN

Steven Ellingson
Virginia Polytechnic Institute & State University

Danilo Erricolo
University of Illinois at Chicago

Ramakrishna Janaswamy
University of Massachusetts – Amherst

Michael Jensen
Brigham Young University

Joel Johnson
The Ohio State University

Thomas Kuerner
Braunschweig Technical University

Patrizia Savi
Politecnico di Torino

Werner Wiesbeck
University of karlsruhe

Riccardo Zich
Politecnico di Milano

Wireless Access (02)

Track Chair: Prof. Erchin Serpedin, Texas A&M

Jean-Francois Chamberland
Texas A&M University

Cristina Comaniciu
Stevens Institute of Technology

Paul Cotae
University of Texas at San Antonio

Hongbin Li
Stevens Institute of Technology

Qilian Liang
University of Texas at Arlington

Zhiqiang Liu
University of Iowa

Xiaoli Ma
Auburn Univeristy

Hlaing Minn
University of Texas at Dallas

Dimitrie Popescu
University of Texas at San Antonio

Lijun Qian
Prairie View A&M University

Daryl Reynolds
West Virginia University

Erchin Serpedin
Texas A&M University

Alireza Seyedi
Philips Research USA

Cihan Tepedelenioglu
Arizona State University

Zhi Tian
Michigan Technological University

Murat Torlak
Univ. of Texas, Dallas

Ufuk Tureli
Stevens Institute Of Technology

Zhengdao Wang
Iowa State University

Yik-Chung Wu
Texas A&M University

Liuqing Yang
University of Florida

Xi Zhang
Texas A&M University

Shengli Zhou
University of Connecticut

Transmission Technology (03)

Co-track Chairs:

Prof. Lajos Hanzo , University of Southampton
Prof. P. Z. Fan , Southwest Jiaotong University
Prof. Gordon Stuber , Georgia Institute of Technology
Prof. Jae Hong Lee

Sonia Aissa
University of Quebec , INRS- EMT

Mark Austin
Cingular Wireless

Stella Batalama

Anuj Batra
Texas Instruments

Helmut Boelcskei
ETH Zurich

James Caffery
University of Cincinnati

Zhigang Cao
Tsinghua University

Qingchun Chen
Southwest Jiaotong University

Sheng Chen
University of Southampton

Yong Soo Cho
Chung-Ang University

Habong Chung
Hong Ik University

Vinko Erceg
Zyray Wireless

Pingzhi Fan
Southwest Jiaotong University

Albert Guillen Fabregas
University of South Australia

Martin Haardt
Ilmenau University of Technology

Li Hao
Southwest Jiaotong University

Robert Heath
University of Texas at Austin

Daesik Hong
Yonsei Univ.

Seung Ku Hwang
ETRI

Cyril Iskander
Florida Atlantic University

Stefan Kaiser
DoCoMo Euro-Labs

Inkyu Lee
Korea University

Yong Hoon Lee
KAIST

Chengshu Li
Northern Jiaotong University

Jorma Lilleberg
Nokia

Wen Ping Ma
Xidian University

David Matolak
Univ. of Ohio

Maria Luisa Merani
University of Modena and Reggio Emilia

Ayman Mostafa
Cingular Wireless

Wai Ho Mow
Hong Kong University of Science and Technology

Makoto Nakamura
Kanagawa Institute of Technology

Marc Necker
University of Stuttgart

Daniel Noneaker
Dept of ECE, Clemson University
Matthias Paetzold
Agder University College

Ashish Pandharipande
Samsung

Lars K. Rasmussen
University of South Australia

Michael Rice
Brigham Young University

Wern Ho Sheen
Chiao Tung University

Qingguo Shen
Najing Univ. of Comms Eng.

Dong-Joon Shin
Hanyang University

Ed Shwedyk
University of Manitoba

Paramalli Udaya
University of Melbourne

Mitsuru Uesugi
Matsushita Communication

Cheng-Xiang Wang
Agder University College

Jing Wang
EE, Tsinghua University

Li-Chun Wang
National Chiao Tung University

Ping Wang
SWJTU

Xinmei Wang
Xidian University

Yongde Wang
Sichuan University

Yue-Lin Wang
Founder Group Corporation

Brian Woerner
Virginia Tech

Sau-Hsuan Wu
University of Southern California

Shiqi Wu
UESTC

Chengshan Xiao
University of Missouri-Columbia

Hong-Chuan Yang
University of Victoria

Lie-Liang Yang
University of Southampton

Wei Yu
University of Toronto

Jinhong Yuan
University of New South Wales

Ping Zhang
WTI-BUPT

Weihua Zhuang
University of Waterloo

Wireless IP Networks (04)

Co-track Chairs:

Dr. Charles Perkins , Nokia
Dr. Christian Bettstetter , Docomo Euro-Labs

Stefano Basagni
Northeastern University

Sonja Buchegger
UC Berkeley

Carla-Fabiana Chiasserini
Politecnico di Torino

Carmelita Görg
University of Bremen

Christian Hartmann
Technische Universitaet Muenchen

Rajeev Koodli
Nokia Research Center

Byoung-Joon Lee
Samsung Advanced Institute of Technology

Wenchao Ma
Microsoft Research Asia

David Maltz
Carnegie Mellon University

Joerg Ott
University of Bremen

Violet Syrotiuk
Arizona State University

Ryuji Wakikawa
KEIO University

Cedric Westphal
Nokia Research Center

Alper Yegin
Samsung Electronics

Wireless Personal Communication Systems (05)

Co-track Chairs:
Dr. Ashutosh Sabharwal , Rice University

Richard Barton
University of Houston

Randall Berry
Northwestern University

Srikrishna Bhashyam
Indian Institute of Technology Madras

Anand Dabak
DSRS R&D Texas Instruments

Alexandre de Baynast
Rice University

Elza Erkip
Polytechnic University

Cyril Iskander
Florida Atlantic University

Syed Jafar
University of California Irvine

Hamid Jafarkhani
University of California, Irvine

Nihar Jindal
University of Minnesota

Koushik Kar
Rensselaer Polytechnic Institute

Ahmad Khoshnevis
Rice University

Timo Laakso
Helsinki University of Technology

Yonghe Liu
UT Arlington

Youjian Liu
University of Colorado at Boulder

Rohit Negi
Carnegie Mellon University

Sumant Paranjpe
Texas Instruments

Bahareh Sadeghi
Intel Corp.

Theodoros Salonidis
Rice University

Philip Schniter
The Ohio State University

DSP for Wireless applications (06)

Co-track Chairs:

Prof. Robert Heath , University of Texas, Austin
Prof. Jeff Andrews , University of Texas, Austin

Raviraj Adve
University of Toronto

Jeffrey Andrews
University of Texas at Austin

Robert Heath
University of Texas at Austin

Erik Larsson
Royal Institute of Technology

Tat Lok
The Chinese University of Hong Kong

Mohammad Mansour
American University of Beirut

Shuichi Ohno
Hiroshima University

Ian Oppermann
University of Oulu

Mark Reed
National ICT Australia, ANU

Mohammad Saquib
Univ Texas Dallas

Sundararajan Sriram
Texas Instruments

EMC issues for Wireless and Mobile Network (07)

Co-track Chairs:

Prof. Masakazu Sengoku , Niigata University
Prof. Fumiya Adachi, Tohoku University

Eisuke Kudoh
Tohoku University

Mobile Satellite System (08)

Track Chair: Prof. Kamran Kiasaleh, University of Texas, Dallas

Mohamed Ibnkahla
Queen's University

Qilian Liang
University of Texas at Arlington

Youssef Ould-Cheikh-Mouhamedou
McGill University

Jing Zhu
University of Washington

Navigation and Location Technologies for Mobile Communications (09)

Track Chair: Dr. William Lee.

Modeling and Simulation (10)

Co-track Chairs:

Prof. Hien T. Tran , North Carolina State University
Prof. Huaiyu Dai, North Carolina State University
Prof. Charles Lee, California State University at Fullerton and JPL

Farid Amoozegar
Jet Propulsion Laboratory

Brad Arnold
JPL

Loren Clare
NASA Jet Propulsion Laboratory

Huaiyu Dai
North Carolina State University

Jay Gao
JPL

Sudharman Jayaweera
Wichita State University

Esther Jenning
NASA/JPL

Charles Lee
JPL

Yao Ma
Iowa State University

Hien Tran
North Carolina State University

Jibing Wang
Nec-Laboratories

Shuangqing Wei
Louisiana State University

Wireless Sensors and Data fusion (11)

Track Chair: Dr. Tapani Ryhanen, Nokia, Finland,

Antti Lappetelainen
Nokia Research Center

Jani Mäntyjärvi
VTT

Aarne Oja
Technical research center
Markku Oksanen
Nokia

Jukka Salminen
Nokia

Jaakko Teinila
Nokia

Power systems (12)

Track Chair: Dr. Xia-Qing Yang, Brookhaven
National Labs

Huk Cheh
Gillette/Duracell

Otto Haas
Paul Scherrer Institute

Bor Yann Liaw
University of Hawaii

McBreen
Brookhaven National Lab

Amplifier Technology and RFIC (13)

Track Chair: Dr. Jiao Bingli, Peking University

Tamio Saito
Fujitsu Research and Development Center Co. Ltd.

Intelligent Transportation System (14)

Track Chair: Prof. David J., University of Lovell

General Conference (15)

Track Chair: Prof. Jaan-Guo Xiaio

Nallanathan Arumugam
National University of Singapore

Pingzhi Fan
Southwest Jiaotong Universityiversity

Jun Fang
Linkair Communications, Inc.

Joseph Ho
Polaris Wireless

Cyril Iskander
Florida Atlantic University

Bingli Jiao
Peking University

Dong Ku Kim
Yonsei University

Jae Hong Lee
Seoul National University

Khaled Letaief
Prof. at EEE dept, HKUST

K.J. Ray Liu
University of Maryland

Shouyin Liu
Huazhong Normal University

James Marin
Motorola, Inc.

Hlaing Minn
University of Texas at Dallas

Balasubramaniam Natarajan
Kansas State University

Tomoaki Ohtsuki
Tokyo University of Science

Dimitrie Popescu
University of Texas at San Antonio

Bin Tang
Founder Group Corporation

Zhi Tian
Michigan Technological University

Cornelius van Rensburg
Samsung

Tang Youxi
National Communications Lab, University of
Electronic Science & Technology of China

Yuping Zhao
Peking University

Monday, September 26, 9.15 - 12.15 Crystal Ballroom I

1A: MIMO – I: BLAST

Chair: Dimitrie Popescu, University of Texas, San Antonio

- 1. Log-likelihood Detection Ordering for MMSE-SIC in V-BLAST Systems**
Mingguang Xu, Jiansong Gan, Shidong Zhou, Yan Yao, Tsinghua University
- 2. Performance Improvement of V-BLAST after an Initial Estimate**
Mingguang Xu, Jiansong Gan, Shidong Zhou, Yan Yao, Tsinghua University
- 3. Reduced Complexity Sequential Sequence Detection Using Modified Fano algorithm for V-BLAST Systems**
Jongsub Cha, Joonhyuk Kang, Information and Communications University; Hoojin Lee, The University of Texas at Austin; Hyuckjae Lee, Information and Communications University
- 4. An Omni-Direction Zero-Forcing BLAST Receiver with Full Diversity**
Yong Xiong, Shanghai Research Center for Wireless Communications
- 5. Signal Detection Scheme Combining MMSE V-BLAST and Variable K-best Algorithms Based on Minimum Branch Metric**
Hisaho Matsuda, Tokyo University of Science; Tomoaki Ohtsuki, Keio University
- 6. Outage Capacity Comparison of Multi-Layered STBC and V-BLAST Systems**
Samir Al-Ghadhban, Michael Buehrer, Virginia Tech; Brian Woerner, West Virginia Univ.
- 7. Improve the performance of V-BLAST based multiuser OFDM by adaptive subcarrier allocation**
Zhenping Hu, Guangxi Zhu, Zhonglin Chen, Desheng Wang, Huazhong Uni. of Sci.&Tech.

Monday, September 26, 9.15 - 12.15 Crystal Ballroom II

1B: UWB – I

Chair: Mohammad Saquib, University of Texas, Dallas

- 1. A Data-Aided Iterative UWB Receiver with LDPC**
Jihad Ibrahim, VA Tech; Michael Buehrer, Virginia Tech
- 2. A Technique for Demapping Dual Carrier Modulated UWB OFDM Signals with Improved Performance**
Zhongjun Wang, Wenzhen Li, Doreen Yeo, Yanxin Yan, Eugene Ting, Masayuki Tomisawa, Oki Techno Centre (Singapore) Pte Ltd
- 3. Pilot-aided Data Transmission over Ultra-wide-band Channels with Selective Reference Signals**
Yanxin Na, Mohammad Saquib, University of Texas at Dallas
- 4. Multiple Access Performance of Transmit-Reference Ultra-Wideband (TR-UWB)**

Communications System Using Differential Multi-Pulse Modulation (DMPM)

Jakkrapong Sumethnapi, Kiyomichi Araki, Tokyo Institute of Technology

- 5. Capacity Region of a Multi-Time-Hopping PPM UWB System Supporting Video Services**
Tung Chong Wong, Institute for Infocomm Research; Jon Mark, University of Waterloo; Kee Chaing Chua, National University of Singapore
- 6. Biorthogonal Pulse Position Modulation for Time-Hopping Multiple Access UWB Communications**
Hao Zhang, Wei Li, T. Aaron Gulliver, University of Victoria
- 7. LR-WPAN System Design Based on UWB Direct Chaotic Communication Technology**
Chia-Chin Chong, Su Khiong Yong, Samsung Advanced Institute of Technology
- 8. A Technique for Reducing Frame Synchronization Errors in OFDM UWB Systems with Multipath**
Guofeng Lu, Predrag Spasojevic, Larry Greenstein, Rutgers University

Monday, September 26, 9.15 - 12.15 Crystal Ballroom III

1C: MIMO-CDMA

Chair: TBA

- 1. Frequency-domain Iterative Parallel Interference Cancellation for Multicode DS-CDMA-MIMO Multiplexing**
Akinori Nakajima, Deepshikha Garg, Fumiyuki Adachi, University of Tohoku
- 2. Frequency-domain Multi-stage MAI Cancellation for DS-CDMA Uplink with Transmit/Receive Antenna Diversity**
Koichi Ishihara, Kazuaki Takeda, Fumiyuki Adachi, University of Tohoku
- 3. Performance of Space Time Coded MC-CDMA Systems with Multiuser Detection**
Samantha Sriyananda, Nandana Rajatheva, University of Moratuwa
- 4. Multiple Scrambling Codes Aided Multiuser Detection for Spatial Multiplexing in DS/CDMA Systems**
Seong Rag Kim, ETRI; Young-Ho Jung, Samsung Advanced Institute of Technology
- 5. Low Complexity Interference Reduction for MIMO enabled CDMA Mobile Receivers**
Juha Korhonen, Ian Wassell, Cambridge University
- 6. Analysis of Serial Search Based Code Acquisition in Multiple Transmit Antenna Aided DS-CDMA**
SeungHwan Won, Lajos Hanzo, University of Southampton
- 7. Performance Comparisons Between OFDM and DS-CDMA Radio Access Using MIMO Multiplexing in Multipath Fading Channels**
Kenichi Higuchi, Junichiro Kawamoto, Hiroyuki Kawai, Noriyuki Maeda, Mamoru Sawahashi, IP Radio Network Development Department, NTT DoCoMo, Inc.

- 8. Design of a Multi-Carrier CDMA Downlink with Different Transmit Antenna Array Strategies**
David Mottier, Mitsubishi Electric ITE-TCL; Thomas Sälzer, France Telecom

Monday, September 26, 9.15 - 12.15 Crystal Ballroom VI

1D: CDMA – I

Chair: Gregory Bottomley, Ericsson

- 1. Blind Frequency Domain Equalization for CP-CDMA Downlink**
Wing Seng Leon, Ying-Chang Liang, Institute for Infocomm Research
- 2. Robust Multi-User Frequency Offset Estimation for Uplink Multi-Carrier Spread-Spectrum Systems**
Hou-Shin Chen, Rutgers Univ.; Yumin Lee, National Taiwan University; David Daut, Rutgers Univ.
- 3. Rake Finger Allocation in the DS-CDMA Uplink**
Ali Khayrallah, Gregory Bottomley, Ericsson Inc.
- 4. Hybrid Interference Subspace Rejection for Multi-Rate CDMA with Improved Performance/Complexity Tradeoff**
Besma Smida, Sofiene Affes, Paul Mermelstein, INRS-EMT
- 5. Outage Probability Analysis of Downlink Power Allocation Mechanisms in CDMA Systems during Soft Handoff**
Li-Chun Wang, Chen Lei, National Chiao Tung University
- 6. Layered Space-Time Architecture for Single-Carrier Block Extended CDMA Systems**
Surya Dharma Tio, Nanyang Technological University
- 7. A Space-Time Spreading Assisted Multicarrier DS-CDMA System Using OVSF Codes Employing Adaptive Mode Switching Thresholds and Adaptive Modulation**
H. Wei, L-L. Yang, Lajos Hanzo, University of Southampton
- 8. A Transmit Diversity Scheme using Space-Time Spreading for DS-CDMA Systems in Rayleigh Fading Channels**
Walaa Hamouda, Mohamed AlJerjawi, Concordia University

Monday, September 26, 9.15 - 12.15 Crystal Ballroom VII

1E: OFDM – I

Chair: Bala Natarajan, Kansas State University

- 1. Sidelobe Suppression in OFDM Systems by Insertion of Cancellation Carriers**
Sinja Brandes, Ivan Cosovic, Michael Schnell, German Aerospace Center (DLR)
- 2. An Improved MMSE Equalizer for One-Dimensional Modulation OFDM Systems**
Peng Tan, Norman Beaulieu, University of Alberta
- 3. Joint channel estimation with phase noise suppression and soft decision decoding scheme for OFDM-based WLANs**
Yong-Hwa Kim, Seong-Cheol Kim, Seoul National University

- 4. Iterative channel estimation and turbo decoding in OFDM systems**
Xuan Huan Nguyen, Jinho Choi, University of New South Wales

- 5. Hybrid Maximum-Likelihood Estimation for Frequency Offset Correction in OFDM Systems**
Chien-Chih Chen, National Taiwan University; Jung-Shan Lin, National Chi Nan University

- 6. Robust and Low-Complexity Resource Allocation Strategies for OFDMA**
Erdem Bala, Len Cimini, University of Delaware

- 7. Optimal Time-Frequency Block Size and Mode-Switching Level for Adaptive OFDM System**
Kil-Ho Shin, Korea Advanced Institute of Science and Technology

- 8. A Gradient-based Method for OFDM Sub-carrier Power Allocation**
Clive Tang, Victor Stolpman, Nokia Research Center

Monday, September 26, 9.15 - 12.15 Crystal Ballroom VIII

1F: Scheduling – I

Chair: Patrick Hosein, Ericsson Wireless Communications Inc.

- 1. Delay Statistics in Multi-Rate Wireless Networks With ARQ and Weighted Round-Robin Scheduling**
Bao Le, Ekram Hossain, Attahiru Alfa, University of Manitoba
- 2. Deadline Constrained Packet Scheduling for Wireless Networks**
Aditya Dua, Nicholas Bambos, Stanford University
- 3. Priority Access for Throughput Sensitive and Delay Sensitive Users in S-ALOHA Using Different Backoff Policies**
Mario Rivero, Domingo Lara-Rodríguez, Felipe Cruz-Pérez, Communications Section, CINVESTAV-IPN
- 4. On the Fairness and Throughput Tradeoff of multi-user Uplink Scheduling in WCDMA Systems**
Symeon Papavassiliou, Chengzhou Li, NJIT
- 5. A Scheduling Algorithm Combined with Zero-forcing Beamforming for a Multiuser MIMO Wireless System**
Jinsu Kim, Sungwoo Park, Jae Hong Lee, Seoul National University; JoonhoLee Lee, Hanwook Jung, Convergence Lab. KT
- 6. On Flow Control and Scheduling in Time-Shared Wireless Packet Data Channels**
Patrick Hosein, Rath Vannithamby, Ericsson Wireless Communications Inc.
- 7. Opportunistic Scheduling for WLAN systems using Cross-Layer Techniques and a Distributed MAC**
Luis Alonso, Universidad Politecnica de Catalunya; Alex Cateura, UPC; Christos Verikoukis, CTTC

Monday, September 26, 9.15 - 12.15 Laliq Ballroom I

1G: 3G

Chair: Konstantinos Dimou, Panasonic European Labs

- 1. Packet Relay through Uplink Common Channel in 3G Systems**
Satoshi Okada, Masato Yamada, Ryoichi Shinkuma, Tatsuro Takahashi, Kyoto University
- 2. Wireless Fair Service for EGPRS**
Talal Diab, Philippe Martins, Philippe Godlewski, Ecole Nationale Supérieure des Télécommunications
- 3. Switched Multi-Radio Transmission Diversity in Future Access Networks**
Georgios Koudouridis, TeliaSonera Mobile Networks R&D; Hamid Reza Karimi, Bell Labs, Lucent Technologies; Konstantinos Dimou, Panasonic European Laboratories
- 4. Auctions Sequence as a New Resource Allocation Mechanism**
Clemens Kloeck, Universität Karlsruhe
- 5. Energy-Efficient Channel Quality Indication (CQI) Feedback Scheme for UMTS High-Speed Downlink Packet Access**
Soo-Yong Jeon, Korea Advanced Institute of Science and Technology
- 6. A Multiband Mobile Communication System for Wide Coverage and High Data Rate**
Yoshitaka Hara, Mitsubishi Electric
- 7. Impact of Feedback Errors in Multiuser Diversity Systems**
Diego Piazza, Politecnico di Milano; Laurence Milstein, University of California
- 8. Radio Resource and Routing Self-Management Using Autonomic Computing Principles**
Chong Shen, Dirk Pesch, Cork Institute of Technology, Ireland; James Irvine, University of Strathclyde

Monday, September 26, 9.15 - 12.15 Laliq Ballroom II

1H: Space-time methods

Chair: TBA

- 1. A Space-frequency-Time Coded OFDM System over Frequency-Selective Channels**
Guangxi Zhu, Xiaofeng Lu, Yingzhuang Liu, Lin Zheng, Huazhong University of Science and Technology
- 2. Capacity of MIMO cellular systems with space-time codes**
Zhuo Wu, Alister Burr, Lingyang Song, University of York
- 3. A Sequential Monte-Carlo Kalman Filter based Frequency Offset and Channel Estimation Method in the MIMO-OFDM System**
Kyeong Jin Kim, Nokia Research Center; Ronald A. Iltis, University of California, Santa Barbara

4. An Iterative Interference Canceller with Log-Likelihood Ratio Compensation for LDPC Coded MIMO Systems

Shutai Okamura, Takaaki Kishigami, Kiyotaka Kobayashi, Yutaka Murakami, Takashi Fukagawa, Matsushita Electric Industrial Co., Ltd.

5. Capacity Increase in Converging Mobile Communication Systems Through the Use of MIMO

Pedro Fernandes, Luis Correia, IST - Tech. Univ. Lisbon

6. Rate-Embedded Differential Space-Time Codes

Hongwei Zhang, Haibin Zhang, Wentao Song, Hanwen Luo, Xingzhao Liu, Shanghai Jiao Tong University

7. High throughput MIMO-OFDM WLAN for urban hotspots

Yan Bian, Andrew Nix, Eustace Tameh, Joe McGeehan, University of Bristol

Monday, September 26, 9.15 - 12.15 Waterford A

1I: Routing in Ad hoc networks: Challenges and Trends

Chair: Frank H. F. Fitzek

1. Control Traffic Analysis of On-Demand Routing Protocols in Ad-hoc Wireless Networks

Raminder Mann, Srividya Arbindi, Kamesh Namuduri, Ravi Pendse, Wichita State University

2. Link Stability based enhancements to OLSR

Sunitha Obilisetty, Amarnath Jasti, Ravi Pendse, Wichita State University

3. Aggregative and Attributes Plantable Routing Discovery Protocols

Huafei Zhu, Institute for Infocomm Research,

4. Enhanced Ad Hoc On-demand Distance Vector (EAODV) Routing Protocol with Route Distribution

Bong Chan Kim, Hwang Soo Lee, Korea Advanced Institute of Science and Technology; Joong Soo Ma, Information and Communications University

5. The challenges of robust inter-vehicle communications (Invited Paper)

Marc Torrent-Moreno, Moritz Killat, Hannes Hartenstein, University of Karlsruhe

6. A Large Scale Wireless Mobile Ad Hoc Network Testbed

Yasunori Owada, Toshiaki Suda, Yoshihiko Takahashi, Terui Hiroyasu, Taki Fumiyoshi, Yagi Takashi, Kenichi Mase, Niigata University

7. A Distributed Time Synchronization Algorithm Robust to Traffic Load for MANETs

Jae Young Lee, Arabinda Verma, Hwang Soo Lee, Korea Advanced Institute of Science and Technology; Joong Soo Ma, Information and Communications University

8. Optimal Path Establishment for Nested Mobile Networks

Masafumi Watari, Ryuji Wakikawa, Keio University; Thierry Ernst, Jun Murai, WIDE Project at Keio University

Monday, September 26, 9.15 - 12.15 Waterford B

1J: Multiple Antenna Technologies

Chair: TBA

1. Antenna Topology Impacts on Measured MIMO Capacity (Invited Paper)

Michael Fitz and Yahya Rahmat-Samii, UCLA

2. Closed-loop downlink switched beam selection

Choong Il Yeh, Electronics and Telecommunications Research Institute

3. MIMO Channel Sounder Implementation and Effects of Sounder Impairment on Statistics of Multipath Delay Spread

Hyun Kyu Chung, Niko Vloeberghs, Heon Kook Kwon, Sung Jun Lee, Lee Kwang Chun, ETRI

4. Performance of Antenna Selection Transmit Diversity with Opportunistic Beamforming in Slow Fading Channels

Xinglin Wang, Kai Niu, Weiling Wu, Beijing University of Posts and Telecommunications

5. Minimum Bit Error Rate Beamforming for Pre-FFT OFDM Adaptive Antenna Array

Fan Ling-Yan, Haibin Zhang, Chen He, Shanghai Jiao Tong University

6. Combining Space Time Block Coding and Adaptive Sectorization using an Electronically Tunable Reflectarray

Geoffrey Messier, Sean Hum, Michal Okoniewski, University of Calgary, TRILabs

7. Application of Smart Antennas to the Cancellation of Measured Impulsive Noise Interference in W-CDMA Environments

Ramón Martínez Rodríguez-Osorio, Leandro Haro y Ariet, Miguel Calvo Ramón, Polytechnic University of Madrid

8. MIMO Channel Characteristics in a Small Macrocell Measured at 5.25 GHz and 200 MHz Bandwidth

Jonas Medbo, Ericsson Research; Mathias Riback, Henrik Asplund, Jan-Erik Berg, Ericsson Research, Ericsson AB

Monday, September 26, 9.15 - 12.15 Colonade A

1K: Cellular systems

Chair: Tho Le-Ngoc, McGill University

1. Performance gains using remote control antennas in CDMA and 1xEV-DO networks

Chris Murphy, Matt Dillon, Aniruddha Subhash, Motorola

2. Gilbert Channel Approximation for Performance Evaluation of WCDMA Systems

Tallal Elshabrawy, Tho Le-Ngoc, McGill University

3. Predicting cellular network performances with cell-level Monte-Carlo simulations

Benoit Pasquereau, Yann Le Helloco, Bernard Breton, Marconi Wireless R&D

4. Extension of the ITU Channel Models for Wideband (OFDM) Systems

Troels Sorensen, AAU; Frank Frederiksen, Nokia Networks; Preben Mogensen, Aalborg University

5. Performance of a multi-channel OFDM system under the effect of adjacent channel interference

Lai King Tee, Cornelius van Rensburg, Yinong Ding, Samsung Telecommunications America

6. RESPECT: A Real-time Emulator for Service Performance Evaluation in Cellular neTworks

Oumer Teyeb, Malek Boussif, Aalborg University; Troels Sorensen, AAU; Jeroen Wigard, Preben Mogensen, Nokia Networks

7. Call Routing and Admission Control for Two-hop TDMA Cellular System

Zhang Jingmei, Beijing University of Posts and Telecommunications

Monday, September 26, 9.15 - 12.15 Colonade B

1L: Angle of Arrival Estimation Techniques

Chair: Qicia Shi, Motorola Labs

1. Indoor GPS Positioning Challenges and Opportunities (Invited Paper)

George Dedes, Topcon Positioning Systems; Andrew Dempster, University of New South Wales

2. Locating Users in Mobile Communications via Absolute and Simulated Propagation Time Delay

Bo-Chieh Liu, Ken-Huang Lin, National Sun Yat-Sen University; Jieh-Chian Wu, National Kaohsiung First University of Science and Technology

3. An Experimental TDOA UWB Location System for NLOS Environments

Frederic Evennou, François Marx, France Télécom R&D

4. A Highly Accurate Location-Estimation Method using Direction-of-Arrival Estimation

Jun Terada, Hiroyuki Takahashi, Yasuhiro Sato, Shin'ichiro Mutoh, NTT Corporation

5. Cellular location technologies supporting AGPS positioning in UMTS networks

Jakub Borkowski, Jarno Niemelä, Jukka Lempiäinen, Tampere University of Technology

6. Performance comparison between TOA ranging technologies and RSSI ranging technologies for multi-hop wireless networks

Qicai Shi, Neiyer Correal, Spyros Kyperountas, Feng Niu, Motorola Labs

Monday, September 26, 9.15 - 12.15 Spectrum A/B

1M: OFDM and CDMA

Chair: Victor Stolpman, Nokia Inc.

- 1. An Efficient Interference Cancellation Scheme for CP-Free MIMO-OFDM Systems**
Chih-Yuan Lin, Ta-Sung Lee, National Chiao Tung University
- 2. OFDM Clipping Distortion Compensation Using an Iterative Method**
Ruhallah AliHemmati, TMU; Paeiz Azmi, Tarbiat Modarres University; Farokh Marvasti, Sharif University of Technology
- 3. Slow Subcarrier-Hopped Space Division Multiple Access OFDM Systems**
M. Jiang, S. X. Ng, Lajos Hanzo, University of Southampton
- 4. Approaches to Adaptive Reed-Solomon Coding for OFDM Systems**
Victor Stolpman, Nokia Research Center; John Terry, Wiquist; Geoffrey Orsak, Southern Methodist University

- 5. Performance of the Smart Antenna Aided Generalized Multicarrier DS-CDMA Downlink Using Both Time-Domain Spreading and Steered Space-Time Spreading**
Bin Hu, Lie-Liang Yang, Lajos Hanzo, University of Southampton
- 6. Orthogonal Spreading with Transmit Diversity for Multicarrier Systems**
Ronald Raulefs, Armin Dammann, German Aerospace Center (DLR)
- 7. On-line analysis/synthesis-based channel parameters estimation and wideband CDMA receiver design verification**
Karim Cheikhrouhou, Sofiène Affes, Institut national de la recherche scientifique, énergie, matériaux et télécommunications; Ahmed Elderini, Besma Smida, Paul Mermelstein, INRS-EMT; Belhassen Sultana, Rogers Wireless; Venkatesh Sampath, Flarion Technologies

Monday, September 26, 14.15 - 17.15 Crystal Ballroom I

2A: MIMO II

Chair: Heng Wang, Qualcomm Inc.

- 1. On the Performance of Limited Feedback Multiuser MIMO Transmission in 3GPP HSDPA**
Hojin Kim, SAIT; Sungjin Kim, Seoul National University; Jianjun Li, Samsung; Marios Kountouris, France Telecom R&D
- 2. Receive Antenna Selection in the Downlink of Multiuser MIMO Systems**
Yongle Wu, Jinfan Zhang, Haibo Zheng, Xibin Xu, Shidong Zhou, Tsinghua University
- 3. MMSE User-Ordered Successive Interference Cancellation Algorithm for Multi-user STBC systems**
Xun Fan, Haibin Zhang, Hanwen Luo, Shanghai Jiao Tong University; Youyun Xu, Shanghai Jiaotong University; Jianguo Huang, Coll. Of Marine Engineering, Northwestern Polytechnical University
- 4. Performance of Adaptive Precoding for Wireless MIMO Broadcast Channels with Limited Feedback**
Sungjin Kim, Seoul National University; Haewoon Nam, The University of Texas at Austin; Hojin Kim, SAIT
- 5. Convergence Analysis of Downlink MIMO Antenna Systems Using Second-Order Cone Programming**
Kai Kit Wong, University of Hull; Gan Zheng, Tungsang Ng, The University of Hong Kong
- 6. Performance Analysis of Space-Time Trellis Codes over Rapid Rayleigh Fading Channels with Channel Estimation**
Yan Li, Pooi-Yuen Kam, National University of Singapore

- 7. Spectral Efficiency Limitations of Maximum Ratio Transmission in the Presence of Channel Estimation Errors**
Amine Maaref, Sonia Aissa, University of Quebec, INRS-EMT, Canada
- 8. Space-Frequency Coding in the Presence of Spatially and Tap Correlated MIMO Channels**
Bruno Clerckx, Université catholique de Louvain

Monday, September 26, 14.15 - 17.15 Crystal Ballroom II

2B: Coding – I

Chair: TBA

- 1. Deterministic Quasi-regular LDPC Codes**
Wenming Liu, Guangxi Zhu, YongQiang Deng, Yejun He, Huazhong University of Science and Technology
- 2. MAP Decoding of Variable Length Codes with Self-Synchronization Strings**
Lei Cao, Lei Yao, The University of Mississippi
- 3. A Cycle Elimination Method for Constructing VLSI Oriented LDPC Codes**
Lei Yang, Hui Liu, C.-J. Richard Shi, University of Washington
- 4. Design of Short Block Length Lossless Turbo Source Encoders**
Javad Haghighat, M. Reza Soleymani, Walaa Hamouda, Concordia University
- 5. Design of LDPC Codes for MIMO Channel to Achieve Ergodic Capacity using Linear Programming**
Yang Yi, Changqing Xu, Hanwen Luo, Shanghai Jiao Tong University
- 6. Low Computational Complexity Algorithms of LDPC Decoder for DVB-S2 Systems**
EunA Choi, ETRI; Jiwon Jung, Korea Maritime University

7. Turbo Detection of Symbol-Based Non-Binary LDPC-Coded Space-Time Signals Using Sphere Packing Modulation

O. Alamri, F. Guo, M. Jiang, Lajos Hanzo, University of Southampton

8. Encoded Pilot Placement for LDPC Iterative Receiver

Hyuck Kwon, Ashutosh Goyal, Khurram Hassan, Wichita State University; Yong Hoon Lee, KAIST

Monday, September 26, 14.15 - 17.15 Crystal Ballroom III

2C: OFDM Transmission Techniques - I

Chair: Fuchun Zheng, Victoria University

1. A Low-complexity Method for Semi-blind Channel Estimation in OFDM Systems

Zhao Ming, University of Science and Technology of China

2. Pilot-assisted Channel Estimation for OFDM/TDM with Frequency-domain Equalization

Haris Gacanin, Shinsuke Takaoka, Fumiyuki Adachi, University of Tohoku

3. Bit Error Rate Analysis of OFDM/TDM with Frequency-domain Equalization

Fumiyuki Adachi, University of Tohoku; Haris Gacanin, Shinsuke Takaoka, Tohoku University

4. Coded Modulation in Pre-Transformed OFDM Systems

Yan Wu, Li Yuan, Sumei Sun, Institute for Infocomm Research

5. Multiuser Diversity-Enhanced Equal Access with Quantized Feedback in Multicarrier OFDM Systems

Yahya Al-Harhi, Ahmed Tewfik, Mohamed-Slim Alouini, University of Minnesota

6. A Residual Frequency Offset Compensation Scheme for OFDM System via SAGE Algorithm

Jong-Ho Lee, Seong-Cheol Kim, Seoul National University

7. Inter-eigenbeam Interleaving Scheme for Eigenbeam-Space Division Multiplexing in OFDM System

Daisei Uchida, Atsushi Ohta, Takafumi Fujita, Yusuke Asai, Osamu Kagami, Masahiro Umehira, NTT Corporation

8. Channel Estimation of Multiple Transmit Antennas for OFDM Systems with Cyclic Delay Preamble

Liang Zhou, Michiharu Nakamura, Fujitsu Laboratories Ltd.

Monday, September 26, 14.15 - 17.15 Crystal Ballroom VI

2D: Multiuser Communication

Chair: Dimitrie Popescu, University of Texas, San Antonio

1. Adaptively induced fluctuations for multiuser diversity: two-dimensional parameters and cellular interference

Rahul Dangui, Bruce Hajek, University of Illinois at Urbana-Champaign

2. Interference Avoidance for Capacity Optimization in Mutually Interfering Wireless Systems

Otilia Popescu, WINLAB at Rutgers University; Dimitrie Popescu, University of Texas at San Antonio; Christopher Rose, WINLAB at Rutgers University

3. Effect of Array Configuration on Multiuser Diversity with Opportunistic Beamforming

Rong Li, National University of Singapore

4. Adaptive Differential Interference Cancellation Multiuser Detection for DS-CDMA Communications

Birendra Nayak, Tim Yao, University of Texas at El Paso

5. Low Complexity Transmitter Zero Forcing Algorithm for Downlink Multiuser MIMO Antenna Systems

Jinfan Zhang, Yongle Wu, Shidong Zhou, Limin Xiao, Jing Wang, EE, Tsinghua University

Monday, September 26, 14.00 - 17.15 Crystal Ballroom VII

2E: OFDM – II

Chair: Fabrice Labeau, McGill University

1. A Decentralized Adaptive Learning Scheme for Adaptive OFDM

Clive Tang, Victor Stolpman, Nokia Research Center

2. On the Adaptability of OFDM-CDMA Forward Link with Time-Frequency Spreading in Multipath Fading Channels

Sheen Wern-Ho, Wern Ho Sheen, Chiao Tung University

3. A Subcarrier Allocation Algorithm for OFDMA Using Buffer and Channel State Information

Parimal Parag, Texas A & M University; Srikrishna Bhashyam, Aravind Rangarajan, Indian Institute of Technology Madras

4. Single Rate Communication is Advantageous Over Per-Tone Rate Control in a Multi-user OFDM System

Vasanthan Raghavan, University of Wisconsin at Madison; Eko Onggosanusi, Anand Dabak, DSPS R&D Texas Instruments

5. OFDM Systems with Cyclic prefix Reconstruction and MMSE Turbo Equalisation

Yushan Li, Steve McLaughlin, David Cruickshank, University of Edinburgh

6. Accurate BER Analysis of Downlink OFDM Systems in a MultiCell Environment

Yemisi Shobowale, Khairi Hamdi, The University of Manchester

7. An ECM-based Receiver for OFDM systems with CFO over Doubly-Selective Fading Channels

Man-On Pun, University of Southern California; Michele Morelli, University of Pisa; C.C. Jay Kuo, University of Southern California

8. New SIC Scheme with Frequency Offset Estimation and Correction

Alireza Kobraei, King's College London; Mohammad Shikh-Bahaie, Kings college London; Sangarapillai Lambotharan, King's College London

Monday, September 26, 14.15 - 17.15 Crystal Ballroom VIII

2F: MAC layer issues

Chair: Naveen Kakani, Nokia Research Center

1. Enhancing the DCF mechanism in noisy environment

Adlen Ksentini, University of Cergy-Pontoise; Abdelhak Gueroui, University of Versailles; Mohamed NAIMI, University of Cergy-Pontoise

2. Demand and Grant MAC Schemes for Best Effort Service in Wireless MAN

Jin Kyung Park, Woo Cheol Shin, Jun Ha, Cheon Won Choi, Dankook University

3. Improving TCP Throughput for Multi-hop Wireless Networks Using MIMO MAC Protocols

Minyoung Park, Scott Nettles, The University of Texas at Austin

4. A Spread-Spectrum MAC Protocol for Impulse-Radio Networks

Swaroop Venkatesh, Virginia Tech; Nishant Kumar, Staccato Communications; Michael Buehrer, Virginia Tech

5. The D-ALOHA Protocol for MANETs using Beamforming Directional Antennas

Ju-lan Hsu, Izhak Rubin, University of California at Los Angeles

6. An Overhead Controlled MAC Protocol for High Data-Rate Wireless Networks

Soon-Hyeok Choi, Scott Nettles, The University of Texas at Austin

7. Robust and Efficient Forward Link Radio Layer Architecture and MAC Layer Design in 3X EV-DV CDMA System

Rene Purnadi, Haihong Zheng, Naveen Kakani, Nokia Research Center - Dallas

8. MAC Efficiency Performance of IEEE 802.16e

Shantanu Kangude, Ariton Xhafa, Xiaolin Lu, Texas Instruments, Inc.

Monday, September 26, 14.15 - 17.15 Laliq Ballroom I

2G: Adhoc Wireless Networks

Chair: Konstantinos Dimou, Panasonic European Labs

1. List-Coloring Based Channel Allocation for Open-Spectrum Wireless Networks

Wei Wang, Xin Liu, University of California, Davis

2. Joint Power and Rate Control for Wireless Ad Hoc Networks: A Game-Theoretical Approach with Step-up Pricing

Qing Chen, Zhisheng Niu, Tsinghua University

3. Asynchronous Wireless Collision Detection (AWCD) with Acknowledgement for Ad Hoc Wireless Networks

Baowei Ji, Samsung

4. Fair Power-Controlled Multiple Access in Mobile Ad Hoc Networks

Wenjian Shao, Dongxu Shen, Daiqin Yang, Victor Li, The University of Hong Kong

5. Scalability of Wireless Networks Capacity with Power Control

Wang Hei Ho, Soung Chang Liew, The Chinese University of Hong Kong

6. An Idle timeslot Reuse Scheme for IEEE 802.15.3 High-Rate Wireless Personal Area Networks

Euihyeok Kwon, Jae Sung Lim, Doyoun Hwang, Ajou University

7. On the Design of Mobility Management Scheme for 802.16-based Network Environment

Junn-Yen Hu, National Chi Nan University; Chun-Chuan Yang, National Chi-Nan University

8. Enhanced Multicasting Using Adaptive Modulation and Coding Scheme in Wireless Network

Ju-Yeop Kim, Dong-Ho Cho, Korea Advanced Institute of Science and Technology (KAIST)

Monday, September 26, 14.15 - 17.15 Laliq Ballroom II

2H: CDMA - II

Chair: Saad Asif, Sprint Corporation

1. Throughput Maximization in Multimedia TDMA/CDMA Systems

Sangwook Suh, Samsung Electronics Co., Ltd.; David Goodman, Polytechnic University

2. Interference Cancellation Technique for cdma2000 Handsets

Saad Asif, Sprint Corporation

3. Band Separated MC-CDMA System for Down-link Cellular Networks

Takeo Fujii, Tokyo University of Agriculture and Technology; Kyesan LEE, Kyung Hee University

4. Distributed Energy-Efficient Power Control for a Dual-Class Traffic in Cellular CDMA Systems

Amir Ghasemi, Elvino S. Sousa, University of Toronto

5. Impact of the MC-CDMA Physical Layer Algorithms on the Downlink Capacity in a Multi-Cellular Environment

Abdel-Majid Mourad, Mitsubishi Electric ITE-TCL

6. Evaluation of the Gated Transmission Mode in CDMA2000 1XRTT Speech Connections

Marcos Lugo, EDELCA; Renny Badra, Universidad Simon Bolivar

7. On the Coexistence of Distributed and Centralized Antenna Systems

Chen Peng, WU Wei-ling, BUPT

8. Evolution from TD-SCDMA to FuTURE B3G TDD

Guangyi Liu, Jianhua Zhang, Ping Zhang, Beijing university of posts and telecommunications

Monday, September 26, 14.15 - 17.15 Waterford A

2I: Security and Power

Chair: TBA

- 1. Key Encapsulation Protocols for Grouped Low-state Devices**
Huafei Zhu, Institute for Infocomm Research,
- 2. Authentication Architecture for Interworking between Universal Mobile Telecommunications Systems (UMTS) and High-speed Portable Internet (HPi) System**
Sun-Hwa Lim, Hyun Suk Roh, Dae-Ik Kim, ETRI; Sang-Ho Lee, Samsung Electronics
- 3. Securing the Digital Marketplace**
Alisdair McDiarmid, James Irvine, University of Strathclyde
- 4. An Efficient Power-Saving Protocol for Internet Traffic in Wireless LANs**
Hyu-Dae Kim, Dong-Ho Cho, Korea Advanced Institute of Science and Technology
- 5. Performance Improvement of Voice and Data over WLANS using Adaptive Power Loading**
Olufunmilola Awoniyi, Oghenekome Oteri, Fouad Tobagi, Stanford University
- 6. A simple congestion pricing in wireless communication**
Sang-wook Han, Youngnam Han, Information and Communication University
- 7. Centralized UWB/WLAN Distribution Network using Low Cost Radio Over Multimode Fiber Technology**
Luo Bin, Institute for Infocomm Research

Monday, September 26, 14.15 - 17.15 Waterford B

2J: Mobility Support

Chair: Dan Avidor

- 1. Fast Handover for Upstream Traffic in Mobile IPv6**
Ari Viinikainen, Stanislav Kascak, Jani Puttonen, Miska Sulander, University of Jyväskylä
- 2. Performance Comparison of Mobile IPv6 and Fast Handovers for Mobile IPv6 over Wireless LANs**
Yong-Sung Kim, Dong-Hee Kwon, Kyung-Jin Bae, Young-Joo Suh, Pohang University of Science and Technology (POSTECH)
- 3. Protocol for Hiding Movement of Mobile Nodes in Mobile IPv6**
Robert Deng, Singapore Management University; Feng Bao, Ying Qiu, Jianying Zhou, Institute for Infocomm Research
- 4. A Multicast Extension to HMIPv6 with Efficient MAP Selection**
Ming-Han Liu, Chun-Chuan Yang, National Chi-Nan University
- 5. An Enhancement of Mobile IP by Home Agent Handover**
Li-Sheng Yu, Chun-Chuan Yang, National Chi-Nan University

- 6. Evaluating Cellular SCTP over One-Hop Wireless Networks**
Ilknur Aydin, Chien-Chung Shen, University of Delaware
- 7. Flexible and Effective Multi-step IP Paging Schemes**
Hung Do, Yoshikuni Onozato, Gunma University
- 8. Ensuring Seamless Handoff in SIGMA**
Mohammed Atiquzzaman, Surendra Sivagurunathan, University of Oklahoma; William Ivancic, NASA Glenn Research Center

Monday, September 26, 14.15 - 17.15 Colonade A

2K: DSP for MIMO

Chair: Huaiyu Dai, North Carolina State University

- 1. Robust Joint Channel Estimation and Symbol Detection over MIMO Channels Using EM Algorithm**
Fu-Hsuan Chiu, Sau-Hsuan Wu, C.C. Jay Kuo, University of Southern California
- 2. Turbo-BLAST With Semi-Blind Co-Channel Interference Cancellation in Multicell MIMO Systems**
Vivek Goel, Huaiyu Dai, NC State University
- 3. The Minimum Error Entropy Based Robust Receiver Design of MIMO Systems in Alpha Stable Noise**
Anxin Li, Tsinghua University
- 4. On the Tradeoff between Feedback Rate and Capacity Loss in Limited Feedback MIMO Systems**
Amir Dabbagh, David Love, Purdue University
- 5. 1 Gbit/s MIMO-OFDM Transmission Experiments**
Volker Jungnickel, Fraunhofer Institut für Nachrichtentechnik (Heinrich-Hertz-Institut) Berlin; Andreas Forck, HHI; Thomas Haustein, Heinrich Hertz Institut Berlin; Stefan Schiffermueller, FhG-HHI; Clemens Von Helmolt, Fraunhofer Institut für Nachrichtentechnik (Heinrich-Hertz-Institut) Berlin; Frank Luhn, Mariam Pollock, Christoph Juchems, IAF GmbH; Wolfgang Zirwas, Siemens
- 6. Quantized Multi-Mode Precoding for Spatial Multiplexing MIMO-OFDM Systems**
Nadia Khaled, Interuniversity Micro-Electronics Center (IMEC); Bishwarup Mondal, Robert Heath, The University of Texas at Austin; Geert Leus, Delft University of Technology; Frederik Petre, Interuniversity micro-electronics center
- 7. On the Design of Limited Feedback MIMO with Feedback Overhead**
David Love, Purdue University
- 8. Experimental Evaluation of Interference Cancellation for Dual-Antenna UMTS Handset**
Tracy Fulghum, Douglas Cairns, Ron Bexten, Ericsson

Monday, September 26, 14.15 - 17.15 Colonade B

2L: Satellite communications

Chair: Chaehag Steve Yi, SOLiD Technologies Inc.

1. **On Gap Filler Deployment in Satellite Digital Multimedia Broadcasting System E**
Chaehag Yi, SOLiD Technologies, INC
2. **Block Phase Estimation with Decision Feedback Demodulator for Satellite-Based Wireless ATM Networks**
Qilian Liang, Lingming Wang, University of Texas at Arlington
3. **Network performance evaluations for Ku band mobile satellite communications system based on Shinkansen railroad's propagation conditions**
Yutaka Imaizumi, Nippon Telegraph and Telephone Corporation; Satoshi Harada, Fumiaki Nagase, Masayoshi Nakayama, Kohei Ohata, NTT Network Innovation Laboratories, NTT Corporation; Masazumi Ueba, NTT Access Network Service Systems Laboratories, NTT Corporation
4. **A Blind Adaptive GPS Receiver Based on a Null Despreader**
Suk-seung Hwang, John Shynk, University of California, Santa Barbara
5. **On the Blind Decision of Modulation Type in Impaired AWGN Channel Environment**
Il Han Kim, Electronics and Telecommunications Research Institute; Kim Young Wan, Kunsan National University; Kim Ho Kyum, Electronics and Telecommunications Research Institute; DeokGil Oh, HoJin Lee, Electronics and Telecommunications Research Institute
6. **Decision-Directed Interference Cancellation applied to Satellite Broadcast Reception**
Joel Grotz, Bjorn Ottersten, Royal Institute of Technology (KTH); Jens Krause, SES ASTRA

Monday, September 26, 14.15 - 17.15 Spectrum A/B

2M: Coding and Queuing

Chair: TBA

1. **Low-Complexity BCJR Decoder for Turbo Decoders and Its VLSI Implementation in 0.18-um CMOS**
Leila Sabeti, Majid Ahmadi, Kemal Tepe, University of Windsor
2. **Erasur Insertion in RS-Coded SFH MFSK Subjected to Tone Jamming and Rayleigh Fading**
Sohail Ahmed, Lie Liang Yang, Lajos Hanzo, University of Southampton
3. **Iterative Joint Video and Channel Decoding in a Trellis-Based Vector-Quantized Video Codec and Trellis-Coded Modulation Aided Wireless Videophone**
R. G. Maunder, J. Kliever, S. X. Ng, J. Wang, L-L. Yang Lajos Hanzo, University of Southampton
4. **Turbo Detected Unequal Error Protection Irregular Convolutional Codes Designed for the Wideband Advanced Multirate Speech Codec**
J. Wang, N. S. Othman, J. Kliever, L. L. Yang, Lajos Hanzo, University of Southampton
5. **Greedy Constructions of Degree Puncture Sequences for Irregular LDPC Codes**
Victor Stolpman, Nokia Research Center; Geoffrey Orsak, Southern Methodist University
6. **Stabilizing Queues in Large-scale Networks**
Yi Fan, Zhong-Ping Jiang, Hao Zhang, Polytechnic University
7. **A Low Complexity Near ML VBLAST Algorithm**
Zhongding Lei, Institute for Infocomm Research; Yongmei Dai, Lehigh University; Sumei Sun, Institute for Infocomm Research

Tuesday, September 27, 9.15 - 12.15 Crystal Ballroom I

3A: MIMO – III

Chair: David Love, Purdue University

1. **Noncoherent Distributed Space-Time Block Coding**
Simon Yiu, Robert Schober, Lutz Lampe, University of British Columbia
2. **MIMO-BICM doubly-iterative receiver based on the EM based channel estimation**
Jinho Choi, University of New South Wales
3. **Reduced Complexity Turbo Equalization for MIMO Channels Using Random Signal Mapping**
Richard Demo Souza, CEFET-PR; Javier Garcia-Frias, University of Delaware; Renato Lopes, State University of Campinas
4. **Semi-Blind Data Detection of Space-Time Coding Systems in Time-Varying Fading Channels**
Ming-Xian Chang, Sheng-Lun Chiou, National Cheng Kung University
5. **Mapping optimization for space-time bit-interleaved coded modulation with iterative decoding**
Wookbong Lee, LG Electronics; Jungho Cho, Chang-Kyung Sung, Inkyu Lee, Korea University
6. **Robust Open-Loop Downlink Beamforming with Time-Switched Diversity**
Steven Ellingson, Virginia Polytechnic Institute & State University; Dan Lyons, Cisco Systems
7. **Non-Unitary Orthogonal Differential Space-Time Modulation with Non-Coherent Soft-Output Detection**
Gerhard Bauch, DoCoMo Euro-Labs
8. **Closed-form Capacity Expressions for SIMO Channels with Correlated Fading**
Yifei Zhao, Ming Zhao, Shidong Zhou, Jing Wang, Tsinghua University

Tuesday, September 27, 9.15 - 12.15 Crystal Ballroom II

3B: UWB – II

Chair: Sameer Herlekar, Louisiana State University

- 1. Exact BER Analysis of DS-UWB Multiple Access System Under Imperfect Power Control**
Wei Cao, Nallanathan Arumugam, National University of Singapore; Balakrishnan Kannan, Chin Choy Chai, Institute for Infocomm Research
- 2. Improvement of Bandwidth Efficiency of UWB-IR and DS-UWB with Frequency-Domain Equalization (FDE) based on Cyclic Prefix (CP) Reconstruction**
Shintaro Yoshida, Tokyo University of Science; Tomoaki Ohtsuki, Keio University
- 3. Performance Evaluation of Ultra Wideband-Impulse Radio(UWB-IR) with Iterative Equalization based on Energy Spreading Transform(EST)**
Kazuya Kobayashi, Tokyo University of Science; Tomoaki Ohtsuki, Keio University
- 4. UWB Geo-Regioning in Rich Multipath Environment**
Frank Althaus, Florian Troesch, Swiss Federal Institute of Technology Zurich; Armin Wittneben, ETH

Tuesday, September 27, 9.15 - 12.15 Crystal Ballroom III

3C: OFDM Transmission Techniques – II

Chair: TBA

- 1. Iterative baseband correction of phase noise in OFDM systems for transmission over multi-path and AWGN channels**
François Marx, France Télécom R&D; Joumana Farah, Holy Spirit University of Kaslik
- 2. Modified Data-Pilot-Multiplexed Scheme for OFDM Systems**
Hlaing Minn, Xiaoyu Fu, University of Texas at Dallas
- 3. Multiuser Bit-Interleaved Coded OFDM with Partial Feedback Information**
Chang-Kyung Sung, Inkyu Lee, Korea University
- 4. A new synchronization scheme for packet mode OFDM-SDM signals in wireless LAN**
Takeshi Onizawa, Takafumi Fujita, Yusuke Asai, Daisei Uchida, Atsushi Ohta, Satoru Aikawa, NTT Corporation
- 5. PAPR Reduction of OFDM Signals using Reversed-Phase Transmission Signal**
Kenzo Nakamura, Tomohiro Inada, Takeshi Hattori, Sophia University
- 6. Analysis of Decision Aided Channel Estimation in Clipped OFDM**
Bingyang Wu, Southeast University

- 7. Effect of PA Nonlinearities on Max-Ratio Combining, Transmit Beamforming, and ST Coding in OFDM**
Timothy Thomas, Motorola Labs

Tuesday, September 27, 9.15 - 12.15 Crystal Ballroom VI

3D: Modulation

Chair: Fu-Chun Zheng, Victoria University

- 1. Trellis Coded Super Unitary Differential Space-Time Modulation**
Meixia Tao, National University of Singapore
- 2. Turbo-Detected Unequal Protection Audio and Speech Transceivers Using Serially Concatenated Convolutional Codes, Trellis Coded Modulation and Space-Time Trellis Coding**
N.S. Othman, Soon Ng, Lajos Hanzo, University of Southampton
- 3. Variable Length Space Time Coded Modulation**
Soon Ng, J. Wang, L. L. Yang, Lajos Hanzo, University of Southampton
- 4. A New Super-Orthogonal Space-Time Trellis Code With 32QAM for Mobile Communications**
Corneliu Eugen D. Sterian, Polytechnic University of Bucharest; Srujan Linga, Harvinder Singh, Indian Institute of Technology Guwahati; Matthias Paetzold, Agder University College
- 5. Double Diagonalisation: an Improved Zero-Forcing Detector for Orthogonal STBC over Time-Selective Fading Channels**
Fu-Chun Zheng, Victoria University of Technology
- 6. BER Analysis of Space-Time Block Codes from Generalized Complex Orthogonal Designs for M-PSK**
Dheeraj Sreedhar, A. Chockalingam, Indian Institute of Science
- 7. Variable-Rate Space-Time Block Coded OFDMA with Power Optimization**
Jung-Bin Kim, Dongwoo Kim, Hanyang University
- 8. On the Performance of Constellation Rotated NO-STBC over Correlated Fading Channels**
Venkatkumar Venkatasubramanian, Victoria University of Technology

Tuesday, September 27, 9.15 - 12.15 Crystal Ballroom VII

3E: OFDM –III

Chair: Murat Torlak, University of Texas, Dallas

- 1. An Orthogonalization Approach for Communication Channel Modeling (Invited Paper)**
Alberto Alcocer-Ochoa, Valeri Ya. Kontorovitch; C-INVESTAV; Ramón Parra-Michel, ITESM

2. **A Subcarrier and Bit Allocation Algorithm for a Beamformer in an OFDMA Ad Hoc Network**
Vishwanath Venkataraman, John Shynk, University of California, Santa Barbara
3. **Low Complexity Dynamic Channel Allocation By Efficient Swapping Process for OFDMA systems**
Woohyun Seo, Myeon-gyun Cho, Daesik Hong, Yonsei University
4. **TDMA-Type Preamble for Low Complexity Multi-User Frequency Synchronization in OFDMA Uplink**
Hlaing Minn, Xiaoyu Fu, University of Texas at Dallas
5. **An Adaptive Patterned-Subcarrier Allocation Algorithm for Low-Complexity Multiuser OFDM System**
Youngok Kim, Haewoon Nam, Sanghyun Chi, Baxter Womack, The University of Texas at Austin
6. **Code Priority of Multiuser OFDM Systems over Frequency Asynchronous Environment**
Shang-Ho Tsai, University of Southern California; Yuan-Pei Lin, National Chiao Tung University; C.C. Jay Kuo, University of Southern California
7. **Fast dedicated retransmission scheme for reliable multicast services in OFDMA systems**
Howon Lee, Dong-Ho Cho, Korea Advanced Institute of Science and Technology
8. **Optimum Channel Coding Rate and Spreading Factor Values Achieving One-cell Frequency Reuse in Downlink VSF-Spread OFDM Packet Radio Access**
Yoshihisa Kishiyama, Nobuhiko Miki, Hiroyuki Atarashi, Mamoru Sawahashi, IP Radio Network Development Department, NTT DoCoMo, Inc.

Tuesday, September 27, 9.15 - 12.15 Crystal Ballroom VIII

3F: 802.11 networks – I

Chair: TBA

1. **Design of a Code-Set for a Robust 8.25 Mbps Data Rate for IEEE 802.11b WLAN**
Subhendu Batabyal, Hellosoft India Ltd.; Bikash Dey, Vellenki Reddy, International Institute of Information Technology
2. **An Improved Analytical Model of 802.11e EDCA with Variable Packet Length**
Gang Wang, ShunLiang Mei, Rong Yu, Zhengyong Zhang, Tsinghua University
3. **Removing Hidden Nodes in IEEE 802.11 Wireless Networks**
Li Bin Jiang, Soung Chang Liew, The Chinese University of Hong Kong
4. **Effectiveness of QoS provided by IEEE 802.11e for Different Traffic Types**
Weihua Xi, Toby Whitley, Alistair Munro, Michael Barton, Dritan Kaleshi, University of Bristol; Gerhard Heide, U4EA Technologies Limited
5. **Filed Test Measurement on 5 GHz Band Wireless LAN under Outdoor Mobile Environment**
Shigeaki Ogose, Akihiro Yasuda, Kagawa University

6. **A Novel Handover Scheme for Reducing Latency in WLANs**
Thavisak Manodham, The University of Electro-Communications; Luis Loyola, NTT; Gustavo Atoche, Mitsuo Hayasaka, Tetsuya Miki, The University of Electro-Communications
7. **SEDCF: Seasonal Enhanced Service Differentiation for IEEE 802.11 Wireless Ad-Hoc Networks based on Seasonal Processes**
Nabil Tabbane, Sup'com; Sami Tabbane, Sup Telecom; Ahmed Mehaoua, University of Versailles
8. **Power Management Scheme Considering Priority in Wireless LAN**
Sang-Wook Kwon, JungYun Lee, Dong-Ho Cho, Korea Advanced Institute of Science and Technology

Tuesday, September 27, 9.15 - 12.15 Laliqie Ballroom I

3G: Channel Analysis

Chair: TBA

1. **Statistical Parallel Interference Cancellation over Rayleigh Fading Channels with Imperfect Channel Estimation**
Beibei Wang, David Matolak, Ohio University
2. **Gap-Processing Time Analysis of an Indicator-based Stall Avoidance Mechanism**
Li-Chun Wang, Chih-Wen Chang, Chung-Ju Chang, National Chiao Tung University
3. **Transmission Design and QoS Oriented Resource Management Based on Integrated Internet and DVB-T Network**
Guowang Miao, Zhisheng Niu, Tsinghua University
4. **Order Statistics for Non-Identically Distributed Nakagami Fading Channels with an Application**
Raymond Kwan, Cyril Leung, University of British Columbia
5. **Practical Termination Strategies for Subcarrier Equalizer Tap Loading Algorithms**
Alexander Wyglinski, The University of Kansas; Martin Cudnoch, Fabrice Labeau, Peter Kabal, McGill University
6. **Spectrum Management in GSM Frequency Hopping Systems**
Pascal Chambreuil, France Telecom
7. **BER-Constrained Loading Algorithms for Multicarrier Spatial Diversity Systems**
Alexander Wyglinski, The University of Kansas; Peter Kabal, Fabrice Labeau, McGill University

Tuesday, September 27, 9.15 - 12.15 Laliqie Ballroom II

3H: CDMA - III

Chair: TBA

1. **A Proposal of SCS-MC-CDMA System for the 4G System**
Teruya Fujii, Noboru Izuka, Hiroyoshi Masui, Atsushi Nagate, Japan Telecom

2. **Adaptive Uplink Load Control in CDMA Systems**
Jian Gu, Nokia (China) Investment Co.; Xiangguang Che, NOKIA
3. **Performance Analysis of the Forward Link cdma2000 1xEV-DO in Terms of the Stochastic Behavior of Wireless Channels in Cellular Systems**
Mustafa Matalgah, Redha Radaydeh, Mahmoud Ismail, The University of Mississippi
4. **Sensitivity of optimum downtilt angle for geographical traffic load distribution in WCDMA**
Jarno Niemelä, Tero Isotalo, Jakub Borkowski, Jukka Lempiainen, Tampere University of Technology
5. **A Service Continuity Mechanism based on IPv6 at Mobile Station for CDMA/WLAN Interworking**
Yong-Geun Hong, Jungsoo Park, Hyoungjun Kim, Hyeong-Ho Lee, ETRI
6. **An OVFSF Code Tree Partition Policy for WCDMA Systems Based on the Multi-Code Approach**
Huei-Wen Ferng, Hao Lun Chin, National Taiwan University of Science and Technology; David Shiung, MediaTek Microelectronics Corporation; Ying-Tsung Chen, National Taiwan University of Science and Technology
7. **Frequency domain cell search for UMTS WCDMA**
Pin-Hsun Lin, Jui-Lin Yen, Hsuan-Jung Su, National Taiwan University

Tuesday, September 27, 9.15 - 12.15 Waterford A

3I: Security; Multimedia and QoS support

Chair: Turgay Korkmaz

1. **Key Caching Mechanism for AAA over Mobile IP**
Shin-Ming Cheng, Phone Lin, Wei-Hao Chen, Department of Computer Science and Information Engineering, National Taiwan University
2. **Cryptographic Component Identification: Enabler for Secure Inter-vehicular Networks**
Andre Weimerskirch, escript GmbH; Christof Paar, Marko Wolf, Ruhr-University Bochum
3. **Towards Automated Authentication for Mobile Users in WLAN Hot-Spots**
Joerg Ott, Helsinki University of Technology; Dirk Kutscher, Mark Koch, University of Bremen
4. **Security for Emerging Ubiquitous Networks**
Chan Yeob Yeun, LG Electronics Inc.; Eng Keong Lua, Jon Crowcroft, University of Cambridge
5. **Aggregation Policies over RSVP Tunnels**
Muhammad Malik, Salil Kanhere, Mahbub Hassan, University of New South Wales
6. **Providing Integrated QoS Control for IEEE 802.16 Broadband Wireless Access Systems**
Wenhua Jiao, Lucent Technologies; Jianfeng Chen, Bell Laboratories
7. **IP Header Compression for Media Streaming in Wireless Networks**
Tatiana Madsen, Frank H.P. Fitzek, Ramjee Prasad, Aalborg University; Marcos Katz, Samsung

8. **Adaptive Reservation in WLAN Networks under Smooth Random Mobility Model**
Florian De Rango, Peppino Fazio, Salvatore Marano, University of Calabria

Tuesday, September 27, 9.15 - 12.15 Waterford B

3J: MIMO and Antennas at 2.4 and 5 GHz

Chair: TBA

1. **On the Capacity MIMO Systems in Ricean Fading Indoor Environments (Invited Paper)**
J. L. Volakis and C.P Lim, Ohio State University
2. **Microwave Signal Nulling using Multiple Antennas and Time-Reversal Method**
Ahmet Cepni, Daniel Stancil, Ben Henty, Carnegie Mellon University
3. **Modelling and Capacity Analysis of MIMO Rician Fading Channel for Mobile-to-Mobile Communications**
Li-Chun Wang, Yun-Huai Cheng, National Chiao Tung University
4. **Dual Band ISM 2.4 GHz and 5 GHz Finger Antenna**
Peter Sjöblom, Lund University
5. **Measurement and Characterization of the Time Variation of Indoor and Outdoor MIMO Channels at 2.4 and 5.2 GHz**
Jon Wallace, Tim Shawcroft, Michael Jensen, Brigham Young University
6. **Characterization of the On-body Wireless Channel at 2.4 and 5.8 GHz**
John Pinkney, TR Labs; Abu B. Sesay, University of Calgary
7. **Compact Dipole Antenna for 2.4/5GHz for a laptop computer**
Jung Ick Moon, Electronics and Telecommunications Research Institute
8. **A Compact Wideband Modified Planar Inverted F Antenna (PIFA) for 2.4/5 GHz WLAN Applications**
Dong-Uk Sim, Electronics and Telecommunications Research Institute

Tuesday, September 27, 9.15 - 12.15 Colonade A

3K: Vehicular communications and trends in transportation

Chair: Deepak Shrestha, Universolutions, LLC.

1. **A Monitoring and Alert System for Tailgating Behavior of Drivers**
Deepak Shrestha, Universolutions, LLC; Gang-Len Chang, University of Maryland, College Park

2. Design and Evaluation of a System Solution for Relative Positioning of Vehicles Using Vehicle-to-Vehicle Communications during Persistent GPS Outages

Vikas Kukshya, HRL Laboratories, LLC.; Hariharan Krishnan, Christopher Kellum, General Motors

3. Performance Evaluation of a Biomorph Control Approach for Tractor-Semitrailers

Danial Shahmirzadi, Reza Langari, Texas A&M University; Luis J. Ricalde, Edgar N. Sanchez, CINVESTAV

4. Sensor-network Protocols for Asset Routing with Constrained Energy (SPARCE): An Introduction

Satish Ukkusuri, Deepak Kumar, Travis Waller, Sriram Vishwanath, The University of Texas at Austin

5. Towards GPS-Based Autonomous Veh

Uvais Qidwai, Tulane University

6. Railway Signaling Systems and New Trends in Wireless Data Communication

Marina Aguado, Eduardo Jacob, Purificación Saiz, Juan José Unzilla, Maria Victoria Higuero, Jon Matias, University of the Basque Country

Tuesday, September 27, 9.15 - 12.15 Colonade B

3L: Fading Channels

Chair: Michifumi Miyashita

1. Model Selection Method for Improving Path Loss Prediction of 400 MHz Band Land Mobile Radio

Michifumi Miyashita, Yoshizumi Serizawa, Central Research Institute of Electric Power Industry; Takashi Terada, Hokkaido Electric Power Co., Inc.

2. Uplink Propagation Characteristics in 5 GHz Networks

Hans-Martin Zimmermann, Munich University of Technology; Matthias Lott, Siemens AG

3. Channel Estimation and Differential Detection for MPSK Signaling in Time-Varying Flat-Fading Communication Channels

Zarko Krusevac, Parastoo Sadeghi, Predrag Rapajic, The University of New South Wales

4. A PH/PH/1 Queuing Model for Finite Load CSMA/CA

Zhu Yanfeng, Zhisheng Niu, Tsinghua University

Tuesday, September 27, 14.15 - 17.15 Crystal Ballroom I

4A: Adaptive Algorithms and Receiver Processing – I

Chair: Alexander Wyglinski, University of Kansas

1. Robust LMMSE Turbo Equalization Algorithm to Imperfect Channel Estimations

Yongjun Deng, Changyong Pan, Zhixing Yang, Jun Wang, Tsinghua University, Beijing

2. Parallel Equalization Scheme for Turbo Equalizer

Xiang Cheng, University of Shandong

5. Modelling and Outage Probability Analysis of Wireless Systems with Imperfect Beamforming

Hanyu Li, Yu-Dong Yao, Jin Yu, Stevens Institute of Technology

6. A Queue-Based Model for Wireless Rayleigh Fading Channels with Memory

Libo Zhong, Fady Alajaji, Glen Takahara, Queen's University

7. New Estimators for the Weibull Fading Parameters

Joseph Gaeddert, A. Annamalai, Virginia Tech

Tuesday, September 27, 9.15 - 12.15 Spectrum A/B

3M: EMC issues

Chair: Robert Akl, University of North Texas

1. Receiver Block Design for Ultrawideband Applications

Bonghyuk Park, ETRI

2. Bias Control for Linearizing Class AB Amplifiers Using Envelope Detection

Sanggeek Kang, Kunsan National University; Himin Lee, Sungyong Hong, Chungnam National Univ.

3. Spectral Occupancy at VHF: Implications for Cognitive Radios

Steven Ellingson, Virginia Polytechnic Institute & State University

4. Transmit Power Efficiency of Multi-Hop Hybrid Selection/MRC Diversity for a DS-CDMA Virtual Cellular Network

Imane Daou, Eisuke Kudo, Fumiyuki Adachi, University of Tohoku

5. Performance Analysis of an Over-Sampling Multi-channel Equalization for a Multi-Band UWB System

Xiaoming Peng, Wong Sai Ho, Francois Chin, Institute for Infocomm Research; As Madhukumar, Nanyang Technological University

6. A Low Complexity RAKE Receiver for Ultra-Wideband Systems

Wei Li, T. Aaron Gulliver, University of Victoria

7. A Subband Doubletalk Detector for Echo Cancellation in Hands-Free Environments

James Gordy, Rafik Goubran, Carleton University

3. An Adaptive Fuzzy-Logic Variable Forgetting Factor RLS Algorithm

Chia-Chang Hu, Hsuan-Yu Lin, Jyh-Horng Wen, National Chung Cheng University

4. Efficient carrier phase recovery with block turbo codes

Sun Heui Ryoo, ETRI; Sooyoung Kim, Chonbuk National University; Do-Seob Ahn, Electronics and Telecommunications Research Institute

5. MAP-PSP for Joint Channel Estimation and Data Detection in Space-Time Coded Systems

Usa Vilaipornsawai, Harry Leib, McGill University

6. **Binary Tree Based PTS for PAPR Reduction in Multicarrier Communications**
Bingyang Wu, Southeast University; ShiXin Cheng, University of Southeast; Haifeng Wang, Nokia
7. **Performance Analysis of Turbo Coding with Blind Channel Estimation in a SIMO FIR Channel**
Yuen Sam Kwok, Manjeet Rikhranj, Institute for Infocomm Research
8. **The Convergent Behavior of Turbo Equalization over an ISI Channel Characterized by a Dynamic Updated BSC**
Fengfan Yang, Ming Ye, Jizhong Chen, Nanjing University of Aeronautics & Astronautics; Lin Luo, Southeast University

Tuesday, September 27, 14.15 - 17.15 Crystal Ballroom II

4B: MIMO-OFDM

Chair: Hlaing Minn, University of Texas, Dallas

1. **On the Performance of Practical VIP-MIMO-OFDM Systems for future wireless LAN**
Kiyotaka Kobayashi, Yutaka Murakami, Takaaki Kishigami, Hidekuni Yomo, Takashi Fukagawa, Matsushita Electric Industrial Co., Ltd.
2. **A Synchronization Scheme for Multiple-Input Multiple-Output OFDM Systems**
Chin-Liang Wang, Yu-Wei Lin, Hung-Chin Wang, National Tsing Hua University
3. **QoS Oriented Dynamical Resource Allocation for Eigen Beamforming MIMO OFDMA**
Guangyi Liu, Xiantao Liu, Ping Zhang, Beijing University of Posts & Telecommunications
4. **Adaptive Switching Scheme for Space-Time Coded OFDM Systems**
Gangyoul Yu, Samsung Advanced Institute of Technology; Joonhyuk Kang, Information and Communications University
5. **Interference Suppression For Quasi-Orthogonal Space-Frequency OFDM MIMO Systems**
Linyang Song, Alister Burr, University of York
6. **PAR-Constrained Training Signal Designs for MIMO OFDM Channel Estimation In the Presence of Frequency Offsets**
Hlaing Minn, Naofal Al-Dhahir, University of Texas at Dallas
7. **A Modified Phase Error Detector for Frequency Tracking in SISO/MIMO-OFDM Systems**
Steve Hsu, Alireza Mehrnia, Babak Daneshrad, University of California, Los Angeles
8. **Iterative Receiver for MIMO OFDM System in Wireless Communication**
Wenfeng Lin, Shanghai Jiaotong University

Tuesday, September 27, 14.15 - 17.15 Crystal Ballroom III

4C: Performance evaluation

Chair: TBA

1. **Performance Analysis of DPSK with Diversity Reception over Equal-Correlated Nakagami-m and Independent Rician Fading Channels**
IYAD AL FALUJAH, University of Texas at Arlington
2. **Doppler Diversity in the Multiresolution Analysis Framework**
Guangjian Shi, Silong Peng, Institute of Automation Chinese Academy of Sciences
3. **Capacities of Two Uplink Speech schemes For FuTURE B3G TDD System in Multi-cell Scenario**
Guangyi Liu, Xiantao Liu, Wenguang Tian, Wang Ying, Ping Zhang, Beijing University of Posts & Telecommunications
4. **Precise Outage Analysis of Selection Diversity in Bandlimited Micro-Cellular Systems with Cochannel Interference**
Kathiravetpillai Sivanesan, Norman Beaulieu, University of Alberta
5. **Probability of Error Performance of Noncoherent M-ary FSK over Multi-Link Generalized Fading Channels**
Redha Radaydeh, Mustafa Matalgah, Ghaith Matalakah, University of Mississippi
6. **On the performance of Partial feedback based Orthogonal Block Coding**
Aydin Sezgin, Eduard Jorswieck, Fraunhofer Institut for Telecommunications, Heinrich-Hertz-Institut
7. **Performance of Hybrid Direct Sequence-Slow Frequency Hopping Spread-Spectrum Acquisition in Partial Band Interference Environments and Fading Channels**
Ayman Elezabi, American University, Cairo; Essam Sourour, Alexandria University
8. **Asymptotic Analysis of Hybrid Selection / Equal Gain Combining Diversity Receivers**
Paraskevas Polydorou, Paul Ho, Simon Fraser University

Tuesday, September 27, 14.15 - 17.15 Crystal Ballroom VI

4D: CDMA – IV

Chair: Erchin Serpedin, Texas A&M University

1. **Downlink Joint Detection for TD-SCDMA Systems: SNR Estimation and Active Codes Detection**
Shi Kai, Erchin Serpedin, Texas A&M University; Aiguo Yan, Zoran Zvonar, Analog Devices
2. **Adaptive Service Rate for Unslotted CLSP/DS-CDMA Packet Radio Networks with Diversity Combining over Nakagami-m Fading Channels**
Tsan-Ming Wu, Chung Yuan Christian University
3. **Evaluating Sector Power Pooling with Real CDMA Network Data**
Geoffrey Messier, University of Calgary; Roman Nemish, Nortel Networks
4. **Analytical Approximate Load Control in WCDMA Radio Networks**
Andreas Eisenblätter, Atesio GmbH, Berlin; Hans-Florian Geerdes, Konrad-Zuse-Zentrum für Informationstechnik Berlin (ZIB); Normen Rochau, Zuse Institute Berlin (ZIB)

5. 2D Multirate Multistage PIC Receiver for Multicarrier DS-CDMA

Isabel Barbancho, Ana M. Barbancho, Lorenzo J. Tardón, ETSI Telecomunicación. Universidad de Málaga

6. Successive interference cancellers for multicode DS-CDMA systems over Nakagami-m fading channels

Tsan-Ming Wu, Chung Yuan Christian University

7. Frequency-interleaved CDMA Uplink Transmission Using Frequency-domain Equalization

Kazuaki Takeda, Tohoku University; Fumiyuki Adachi, University of Tohoku

8. Iterative PIC Detection and Channel Estimation for Uplink MC-CDMA Systems

Yi Yuan-Wu, Rodolphe Legouable, France Telecom R&D

Tuesday, September 27, 14.15 - 17.15 Crystal Ballroom VII

4E: Scheduling – II

Chair: Qilian Liang, University of Texas, Arlington

1. Dynamic MAC Scheduling Scheme for MPEG-4 Based Services in 802.15.3 High-Rate WPAN

Ming Wang, Bei Jing University of posts and telecommunications; Geng-Sheng Kuo, National Chengchi University

2. Distributed slot allocation with centralized power control and beamforming for multicell packet access networks with smart antennas

Riccardo Veronesi, Velio Tralli, University of Ferrara - Italy

3. On the Rate Adaptation and Scheduling Design of Downlink Multi-user, Multiple-antenna Base Station with Imperfect CSIT

Vincent Lau, the Hong Kong University of Science and Technology; Meilong Jiang, University of Hong Kong

4. Contention-Less Single-User Feedback for Multiuser Diversity Scheduling

Hend Koubaa, Vegard Hassel, Geir E. Øien, Norwegian University of Science and Technology

5. An Efficient QoS-based Scheduling Algorithm for MIMO Wireless Systems

Wessam Ajib, University de Quebec a Montreal; David Haccoun, Jean-François Frigon, École Polytechnique de Montréal

6. Generalized Packet Scheduler for Wireless and Mobile Multimedia Communications Systems

K. W. Choi, Seoul National University; Dong Geun Jeong, Hankuk University of FS; Wha Sook Jeon, Seoul National University

7. Sector Throughput Using Frequency-domain Packet Scheduling with Channel Prediction in OFDM Downlink Broadband Packet Radio Access

Yoshiaki Ofuji, Akihito Morimoto, Hiroyuki Atarashi, Mamoru Sawahashi, NTT DoCoMo, Inc.

8. Latency and Energy Efficiency Evaluation in Wireless Sensor Networks

Xinsheng Xia, Qilian Liang, The University of Texas at Arlington

Tuesday, September 27, 14.15 - 17.15 Crystal Ballroom VIII

4F: OFDM - IV

Chair: Baowei Ji, Samsung

1. Timing Synchronization for Ultra-Wideband (UWB) Multi-Band OFDM Systems

Chin Wee Yak, National University of Singapore; Zhongding Lei, Tjeng Thiang Tjhung, Suttinan Chattong, Institute for Infocomm Research

2. Analysis of Optimal Use of CQI Channels for OFDMA Systems

Baowei Ji, Cornelius van Rensburg, Jiann Tsai, Samsung Telecommunications America

3. Comparison of Carrier Frequency Offset Estimation Schemes Based on APSSB and Preamble in OFDMA in Fading Channel

Wenfei Xie, Shuang Li, Ping Zhang, Beijing University of Posts and Telecommunications; Kiyoshi Hamaguchi, Hiromitsu Wakana, National Institute of Information & Communications Technology

4. Iterative ICI Cancellation Algorithm For Uplink OFDMA System With Carrier-Frequency Offset

Min Huang, Xiang Chen, Shidong Zhou, Jing Wang, Tsinghua University

5. A New Subcarrier Oriented Handover Scheme in Downlink OFDMA Cellular Systems

Hanho Wang, Choongchae Woo, Daesik Hong, Yonsei University

6. New Preamble Structures for Synchronization and Cell Searching in OFDM Systems

Jongnam Kim, Information and Communications University; Hoon Kim, Samsung Advanced Institute of Technology; Youngnam Han, Information and Communication University

7. Experiments on Real-Time 1-Gbps Packet Transmission Using Antenna-Independent AMC in MIMO-OFDM Broadband Packet Radio Access

Noriyuki Maeda, Hiroyuki Kawai, Kenichi Higuchi, Junichiro Kawamoto, Mamoru Sawahashi, NTT DoCoMo, Inc.

8. Performance of OFDM based Broadcast Schemes for EV-DO Systems

Chandrasekar Sankaran, Frank Hsieh, Fan Wang, Jun Tan, Amitava Ghosh, Motorola Inc

Tuesday, September 27, 14.15 - 17.15 Laliq Ballroom I

4G: Next Generation Wireless Networks

Chair: Charles Perkins, Nokia

1. SAN: Smart Ad hoc Networks

Shashidhar Gandham, Srikant Kuppa, Ravi Prakash, University of Texas at Dallas

2. Improving HSDPA Link Adaptation by Considering the Age of Channel Quality Feedback Information

Andreas Mueller, University of Stuttgart; Tao Chen, Nokia Research Center Beijing

3. OVSF Code Tree Management for UMTS with Dynamic Resource Allocation and Class-Based QoS Provision

Huei-Wen Ferng, Jin-Hui Lin, Yuan-Cheng Lai, Yung-Ching Chen, National Taiwan University of Science and Technology

4. Multi-Radio Resource Management for Communication Networks beyond 3G

Per Magnusson, Ericsson Research; Fredrik Berggren, KTH, Royal Institute of Technology; Ingo Karla, Alcatel; Remco Litjens, TNO Information and Communication Technology; Francesco Meago, Siemens Mobile Communications; Haitao Tang, Nokia; Riccardo Veronesi, University of Ferrara

5. Drive test based EDGE Radio Network Performance Evaluation

Hossam Hmimy, Naren Mohan, Praveen Chandrasekaran, Ericsson Inc.

6. Multi RAB-Based Multimedia Services over GERAN Mobile Networks

Francesco Lironi, Carlo Masseroni, Riccardo Trivisonno, Siemens Mobile Communications S.p.A; Carsten Ball, Siemens AG

7. Evaluations of a 4G Uplink System Based on Adaptive Single-carrier TDMA

Wei Wang, Tony Ottosson, Tommy Svensson, Arne Svensson, Chalmers University of Technology; Mikael Sternad, Uppsala University

8. Generic Link Layer: A Solution For Multi-Radio Transmission Diversity in Communication Networks Beyond 3G

Konstantinos Dimou, Panasonic European Laboratories

Tuesday, September 27, 14.15 - 17.15 Laliq Ballroom II

4H: New Directions; Link Layer and Energy issues

Chair: Gerhard Bauch

1. Load Balancing among Internet Gateways in Ad Hoc Networks

Jaewook Shin, Hae-Ryong Lee, Jeehyeon Na, Aesoon Park, ETRI; Sang-Ha Kim, Chungnam National University

2. Implementation of Dynamic Switching Between One-to-many Download Methods

Oliver Holland, Shan Wang, Aude Dev Pramila, Hamid Aghvami, King's College London, University of London

3. Prediction of Flow Termination in Wireless Packet Networks

Jeong-dong Ryoo, Kang Yong Lee, Seong-Soon Joo, ETRI

4. Distributed Radio Link Control Protocol in an All-IP Cellular Network

Suman Das, Bell Laboratories; Thierry Klein, Lucent Technologies; Kin Leung, Imperial College; Sayandev Mukherjee, Lucent Technologies Bell Labs; Gee Rittenhouse, Louis Samuel, Harish Viswanathan, Bell Labs, Lucent Technologies; Haitao Zheng, Univ. of California, Santa Barbara & MSRA

5. Impacts of Channel Reliability on Topology Control in Multi-hop Wireless Networks

Turgay Korkmaz, University of Texas at San Antonio; Mustafa Kaynak, ASU

6. Connectivity, Power and Energy in a Multihop Cellular Packet System

Sayandev Mukherjee, Dan Avidor, Bell Labs, Lucent Technologies

7. ARQ for Multi-Hop Networks

Matthias Lott, Siemens AG

8. Impact of Layer 2 Behavior on TCP Performance in WLAN

Kazuya Tsukamoto, Ryouichi Ijima, Shigeru Kashiara, Yuji Oie, Kyushu Institute of Technology

Tuesday, September 27, 14.15 - 17.15 Waterford A

4I: Urban radio channels

Chair: John Volakis, Ohio State University

1. Antenna Design and Site Planning Considerations for MIMO (Invited Paper)

Steven W. Ellingson, Virginia Tech

2. Cluster Characterization in Urban Macrocellular Environments with Ray-tracing

Thomas Fuegen, Juergen Maurer, Werner Wiesbeck, IHE, University of Karlsruhe

3. Microcell Urban Propagation Channel Analysis Using Measurement Data

Mir Ghorashi, Jun-ichi Takada, Tokyo Institute of Technology; Tetsuro Imai, NTT DoCoMo, Inc.

4. A Sum-of-Sinusoids based Simulation Model for the Joint Shadowing Process in Urban Peer-to-Peer Radio Channels

Zhenyu Wang, Eustace Tameh, Andrew Nix, University of Bristol

5. Outdoor Radio Channel Measurements at 2.35 GHz for WiBro Systems

Rami Lee, Joungchul Kim, JaeHwang Yu, SK Telecom.com; Sanghoon Seo, Junghwa Wui, Seokyong Shon, Jong Min Cheong, HFR, Inc.; Dongwoo Kim, Hanyang University

6. Empirical Formulas for Determination of the Propagation Loss in Urban Radio Access Links

Ryszard Katulski, Gdansk University of Technology

7. Wireless Sensors in Reverberant Enclosures: Characterizing a New Radio Channel

Jonathan Van't Hof, Daniel Stancil, Carnegie Mellon University

8. How Many Dipoles Can Be Packed into $(\lambda/2)^3$

Bing Bai, Zhenghe Feng, Tsinghua University

Tuesday, September 27, 14.15 - 17.15 Waterford B

4J: DSP for wireless CDMA

Chair: Walaa Hamouda, Concordia University

1. **A Reduced Complexity Hybrid Receiver for the Downlink Multicell CDMA System**
Md Islam, Mohammad Saquib, Naofal Al-Dhahir, University of Texas at Dallas
2. **Low Power VLSI Architecture for Adaptive MAI Suppression in CDMA Using Multi-stage Convergence Masking Vector**
Yuanbin Guo, Nokia
3. **Performance Analysis of Nonlinear Decision-Feedback Detection in CDMA Systems over Rayleigh Fading Channels**
Min Li, Walaa Hamouda, Concordia University
4. **SIC Beamforming with Antenna Selection for Aperiodic CDMA Signals**
Vishwanath Venkataraman, John Shynk, University of California, Santa Barbara; Richard Gooch, Applied Signal Technology, Inc.
5. **Techniques for Received Signal Focusing in DSUWB Systems**
Yu-Hao Chang, Xiaoli Yu, C.C. Jay Kuo, University of Southern California
6. **Efficient ICI Matrix Estimation Using Hadamard Sequences for Wireless OFDM Systems**
Hsiao-Chun Wu, Louisiana State University; Yiyang Wu, Communications Research Centre
7. **An EM-based Subspace Tracker for Wireless Communication Applications**
Amir Ghasemi, Elvino S. Sousa, University of Toronto
8. **A Novel Full-Rate Full-Diversity STBC with Application to WiMAX**
Rob Calderbank, Princeton University; Sushanta Das, Naofal Al-Dhahir, University of Texas at Dallas; Suhas Diggavi, Swiss Federal Institute of Technology (EPFL)

Tuesday, September 27, 14.15 - 17.15 Colonade A

4K: Clustering

Chair: Li-Chun Wang, National Taipei University of Technology

1. **A Probabilistic Clustering Algorithm in Wireless Sensor Networks**
Hesong Huang, Jie Wu, Florida Atlantic University
2. **A Fast Algorithm and Testbed Evaluation for Sound-source Localization Using Sensor Networks**
Brian Johnston, Xiaoming Yin, Adrian Valenzuela, Patrick Frantz, Rice University
3. **An Analysis on the Topological Formation of Wireless Sensor Networks**
Boon Sain Yeo, Seng Kee Tan, Kim Sing Wong, Yu Ge, Qi Yao, Qinghe Yin, Institute for Infocomm Research, Singapore
4. **A Two-Levels Hierarchy for Low-Energy Adaptive Clustering Hierarchy (TL-LEACH)**
Valeria Loscri, University of Calabria
5. **A Multihop Data Relay Scheme for Wireless Networked Sensors**
Dazhi Chen, Syracuse University; Guangtong Cao, Texas A&M University; Long Zuo, Syracuse University

6. **An Adaptive Contention Window-based Cluster Head Election Mechanism for Wireless Sensor Networks**
Li-Chun Wang, Chung Wei Wang, National Chiao Tung University; Chuan-Ming Liu, National Taipei University of Technology
7. **Optimization of Distributed Space-Time Filtering**
Simon Yiu, Robert Schober, Lutz Lampe, University of British Columbia
8. **Fuzzy Logic Optimization of MAC Parameters and Sleeping Duty-Cycles in Wireless Sensor Networks**
John Wallace, Dirk Pesch, Susan Rea, Cork Institute of Technology

Tuesday, September 27, 14.15 - 17.15 Colonade B

4L: Performance analysis and modeling

Chair: Robert Akl, University of North Texas

1. **Performability Evaluation of Network Humanoid Robot System on Ubiquitous Network**
Takashi Okuda, Aichi Prefectural University; Yoshimi Sago, Mitsubishi Electric Mechatronics Software Corporation.; Ikuo MAEDA, Tetsuo Ideguchi, Xuejun Tian, Aichi Prefectural University
2. **Performance Analysis of AMCLM protocol (Adaptive Multi-services Cross-Layer Mac protocol)**
Jalel BEN OTHMAN, Université de Versailles; Lynda Mokdad, Université de Paris Dauphine; Souheila Bouam, University of Versailles
3. **OFDM Performance Analysis in the Presence of Synchronization Errors Induced by Hot Carriers**
Sameer Herlekar, Hsiao-Chun Wu, Louisiana State University
4. **Physical Layer Simulations of IEEE802.11a for Vehicle-to-Vehicle Communication**
Juergen Maurer, Thomas Fuegen, Werner Wiesbeck, IHE, University of Karlsruhe
5. **A Generalized Video Traffic Model for MPEG Encoded Video**
Chee Hock Liew, Centre for Communication Systems Research.; Chandrika Kodikara, Ahmet Kondo, University of Surrey
6. **Discrete Feedback Queuing Models for Mobile Traffic**
Yong Xiong, Shanghai Research Center for Wireless Communications
7. **A Novel Group Mobility Model for the Simulation of Wireless Communication Networks**
Michele Rossi, Leonardo Badia, University of Ferrara; Michele Zorzi, Università degli Studi di Padova
8. **Link-to-System Mapping Using a Spatial Channel**
Alfonso Rodriguez, Sean McBeath, Doug Reed, Danny Pinckley, Motorola Labs

Tuesday, September 27, 14.15 - 17.15 Spectrum A/B

4M: Channel Estimation

Chair: Hsiao-Chun Wu, Louisiana State University

1. A Fast Channel Allocation Algorithm for Wireless Data Broadcast over Digital TV Terrestrial Broadcast System

Zhu Yanfeng, Zhisheng Niu, Tsinghua University

2. Understanding the effect of environmental factors on link quality for on-board communications

Irene Chan, Albert Chung, Mahbub Hassan, University of New South Wales; Kun-chan Lan, Lavy Libman, National ICT Australia Ltd.

3. Reducing Required Power Back Off of Nonlinear Amplifiers in Serial Modulation using SLM Method

Maryam Sabbaghian, David Falconer, Carleton University

4. Effects of Rate Adaptation on the Throughput of Random Ad Hoc Networks

Xiang Liu, Lajos Hanzo, University of Southampton

5. Output threshold-MRC over I.I.D. Nakagami and Non-I.I.D. Rayleigh Fading Channels

Haewoon Nam, The University of Texas at Austin; Young-Chai Ko, Korea University; Baxter Womack, University of Texas

6. Fast Channel Estimation Using Maximum-length Shift-register Sequences

Songnan Xi, Hsiao-Chun Wu, Louisiana State University

7. An Application-Aware QoS Routing Scheme with Improved Stability for Multimedia Applications in Mobile Ad Hoc Networks

Ming Wang, Beijing University of Posts and Telecommunications; Geng-Sheng Kuo, National Chengchi University

8. Secret Communication using Artificial Noise

Rohit Negi, Satashu Goel, Carnegie Mellon University

Wednesday, September 28, 9.15 - 12.15 Crystal Ballroom I

5A: Adaptive Algorithms and Receiver Processing – II

Chair: TBA

1. Encoded Pilots for Iterative Receiver Improvement

Hyuck Kwon, Khurram Hassan, Ashutosh Goyal, Wichita State University; Mi-Kyung Oh, Dong-Jo Park, Korea Advanced Institute of Science and Technology; Yong Hoon Lee, KAIST

2. Sample-Spaced and Fractionally-Spaced CIR Estimation Aided Decision Directed Channel Estimation for OFDM and MC-CDMA

J. Akhtman, Lajos Hanzo, University of Southampton

3. A Robust Nonlinear Beamforming Assisted Receiver for BPSK Signalling

S. Chen, A. Wolfgang, Lajos Hanzo, University of Southampton

4. Timing Error Detector for OQPSK Signal

J.S. Seong, Information and Communications University

5. An Imbalances Cancellation Method with Memory in LINC Transmitters for Wideband Systems.

Paloma Garcia, Jesús de Mingo, Antonio Valdovinos, University of Zaragoza

6. Adaptive M-QAM scheme and unbiased MMSE-DFE receiver

Mohamed Lassaad Ammari, Francois Gagnon, Jean Belzile, Ecole de Technologie Supérieure

7. Basestation-to-Mobile Clock Synchronization in the Presence of Carrier Frequency Offset

Jungwoo Lee, Hyun Beom Lee, Seoul National University

8. A computationally efficient multi-mode equaliser based on reconfigurable frequency domain processing

Michael Hart, Fujitsu Laboratories of Europe Ltd

Wednesday, September 28, 9.15 - 12.15 Crystal Ballroom II

5B: Coding – II

Chair: Fabrice Labeau, McGill University

1. A Novel Storage Scheme for Parallel Turbo Decoder

He Xiang, Hanwen Luo, Haibin Zhang, Shanghai Jiaotong University

2. Simplified Turbo Decoding by Way of Selective Trellis Pruning

Eric Bertrand, Fabrice Labeau, McGill University

3. Joint Source-Channel Turbo Decoding of Entropy Coded Sources: A Reduced Complexity, Higher Performance Algorithm

Karim Ali, Fabrice Labeau, McGill University

4. Punctured Binary Turbo-Codes with Optimized Performance

Ioannis Chatzigeorgiou, Miguel Rodrigues, Ian Wassell, University of Cambridge

5. Sub-Block Recovery Scheme for Iterative Turbo Decoding

Chunlong Bai, Bartosz Mielczarek, Witold Krzymien, Ivan Fair, University of Alberta / TRILabs

Wednesday, September 28, 9.15 - 12.15 Crystal Ballroom III

5C: CDMA, TDMA and Cognitive Radio

Chair: G. Dattatreya, University of Texas, Dallas

1. Adaptive Frequency-Domain Interference Cancellation and Channel Equalizer for CP-CDMA Systems

Xu Jing, Shanghai Research Center for Wireless Communications; Haifeng Wang, Nokia; Cheng Shixin, Chen Ming, Southeast University; Zhiyong Bu, Shanghai Institute

- of Microsystem and Information Technology, CAS, and Shanghai Research Center for Wireless Communications
2. **Pilot-Channel Aided SIC Scheme for Multirate WCDMA systems in Multipath Fading Channels**
Chih-Hsuan Tang, Che-Ho Wei, National Chiao Tung University
 3. **Detect Spreading Code for Multi-user Detector in TD-SCDMA Downlink**
Minying Sun, STMicroelectronics Asia Pacific Pte Ltd
 4. **Large-System Analysis of Hybrid Channel Estimation Methods in CDMA Systems**
Ozgur Ozdemir, Murat Torlak, Naofal Al-Dhahir, University of Texas at Dallas
 5. **Cognitive radio channel and user assessment and tracking**
Larry Singh, G. Dattatreya, University of Texas at Dallas
 6. **Improved Reconstruction of Channel State Information in 3GPP**
Abdorreza Heidari, Farshad Lahouti, Amir K. Khandani, University of Waterloo
 7. **Robust Velocity Estimation For Non-isotropic and AWGN Channel**
Sangho Nam, Goo-hyun Park, Changeon Kang, Daesik Hong, University of Yonsei
 8. **A One-cell Reuse TDMA Cellular System with Adaptive Guard Interval Control**
Seiichiro Horikawa, Osamu Muta, Yoshihiko Akaiwa, Kyushu University

Wednesday, September 28, 9.15 - 12.15 Crystal Ballroom VI

5D: Coding Performance

Chair: Nandana Rajatheva, University of Moratuwa

1. **Space-Time Block Codes Achieving Generalized Optimal Diversity**
Moon Il Lee, LG Electronics; Seong Keun Oh, Ajou University
2. **Pairwise Error Probability of Space-Time Codes over Frequency Selective Rician Channels**
Prathapasinghe Dharmawansa, Nandana Rajatheva, University of Moratuwa; Kazi Ahmed, Asian Institute of Technology
3. **Space-Time Block Coded Transmit/Receive Diversity**
Hiromichi Tomeba, Kazuaki Takeda, Fumiyouki Adachi, University of Tohoku
4. **Opportunistic Space-Time Block Codes**
Sushanta Das, Naofal Al-Dhahir, University of Texas at Dallas; Suhas Diggavi, Swiss Federal Institute of Technology (EPFL); Rob Calderbank, Princeton University
5. **Performance Analysis of Statistical STBC Cooperative Diversity Using Binary Sensors with Observation Noise**
Tomoaki Ohtsuki, Keio University
6. **Outer Iterative Parallel Interference Cancellation Detection for Orthogonal Space-time Block Coding over Time-selective Fading Channels**
Yu Zhang, Alister Burr, University of York

7. **Performance Analysis of Maximal-Ratio Combining with Transmit Antenna Selection for Generalized Selection Criterion**
Seyeong Choi, Edward Powers, The Univ. of Texas at Austin; Young-Chai Ko, Korea University
8. **Low-Complexity ZF Detector for D-STTD Systems in Time-Selective Fading Channels**
Hoojin Lee, The University of Texas at Austin; Joonhyuk Kang, Information and Communications University; Edward Powers, The Univ. of Texas at Austin

Wednesday, Sept 28, 9.15 - 12.15 Crystal Ballroom VII

5E: CDMA – V

Chair: Jiao Bingli, Peking University

1. **Comb Spectrum Codes and Its Enabled Multiple Access Scheme (Invited Paper)**
Hongbing CHENG, Meng MA and B.L. JIAO; Peking University
2. **Novel HARQ attaining Frequency Diversity Effect in Sub-carrier Selecting MC-CDMA System**
Hiroyoshi Masui, Noboru Izuka, Teruya Fujii, Japan Telecom
3. **System Configuration for Multiband MC-CDMA Systems**
Yoshitaka Hara, MITSUBISHI ELECTRIC; Akinori Taira, Mitsubishi Electric Corporation
4. **Two-Layer Spreading CDMA: An Improved Method for Broadband Uplink Transmission**
Xiaoming Peng, Zhongding Lei, Francois Chin, Institute for InfoComm Research
5. **S-ALOHA/Overlapped CDMA System for Multirate Applications in a WLAN Environment**
Elie Inaty, University of Balamand
6. **Performance Analysis of Multicarrier CDMA Multiuser Detection with Channel Mismatch**
Pangan Ting, Tsing Hua University; Chao-Kai Wen, Industrial Technology Research Institute; Jung-Chieh Chen, National Kaohsiung Normal University
7. **Joint Optimisation of Spreading Factors and Outer-Loop Power Control for DS-CDMA**
Farhad Zarringhalam, Ali Olfat, Mohammad Shikh-Bahaei, King's College London; Gilles Charbit, Nokia UK
8. **A Low-Complexity Deterministic Algorithm for DS-CDMA Sequence Generation**
Justin Dyer, Balasubramaniam Natarajan, Kansas State University

Wednesday, September 28, 9.15 - 12.15 Crystal Ballroom VIII

5F: MIMO IV

Chair: Erchin Serpedin, Texas A&M University

1. **Non-data-aided ML Symbol Timing Estimation in MIMO Correlated Fading Channels**
Yik-Chung Wu, Erchin Serpedin, Texas A&M University

2. **Hermitian Optimization and Scalable VLSI Architecture for Circulant Approximated MIMO Equalizer in CDMA Downlink**
Yuanbin Guo, Nokia
3. **Decision-Feedback Receiver for Quasi-Orthogonal Space-Time Coded OFDM with Correlative Coding Over Fast Fading Channels**
Yu Zhang, Huaping Liu, Oregon State University
4. **On the Optimality of Downlink OFDMA MIMO Systems**
Guoqing Li, Hui Liu, University of Washington
5. **Decision Feedback aided Bayesian Turbo Space-Time Equalizer for Parallel Interference Cancellation in SDMA Systems**
A. Wolfgang, S. Chen, Lajos Hanzo, University of Southampton
6. **Minimum Conditional Probability of Error Based Multiuser Detection for Space-Time Coded CDMA Systems**
G. V. V. Sharma, S. H. Srinivasan, Satyam Computer Services Limited
7. **Resource allocation for multiuser space-time coding based OFDM systems with QoS provision**
Zhenping Hu, Guangxi Zhu, Huazhong University of Science and Technology
8. **Optimal Transmission and Feedback Design for OFDM/MIMO Systems in Frequency Selective Fading Channels with Limited Feedback**
Tianyu Wu, HongKong University of Science and Technology; Vincent Lau, Bell Labs

Wednesday, September 28, 9.15 - 12.15 Laliqie Ballroom I

5G: Fading channels and cellular networks

Chair: Tao Xiaofeng, Beijing University of Posts and Telecommunications

1. **Outage Probability in Multiple Access Systems with Weibull-Faded Lognormal-Shadowed Communication Links**
Mahmoud Ismail, Mustafa Matalgah, The University of Mississippi
2. **Queueing Performance of an Adaptive Hybrid-ARQ scheme in a TDMA/TDD system over Markovian channel**
Jun Bae Seo, Electronics and Telecommunication Research Institute; Seung-Que Lee, Nam-Hoon Park, ETRI; Hyong Woo Lee, Korea University; Choong-Ho Cho, University of Korea
3. **A New Method of Link Error Performance Prediction**
Zhen Liu, Ran Duan, Yungen Jin, Dacheng Yang, Beijing University of Posts and Telecommunications
4. **Performance Management in 3/4G Mobile Networks**
Eero Wallenius, Nokia Oyj; Timo Hämäläinen, University of Jyväskylä; Henri Helanterä, Nokia Oyj; Olli Alanen, Olli Karppinen, University of Jyväskylä

5. **On the Correlated Weibull Fading Model and Its Applications**
Nikos Sagias, University of Athens; George Karagiannidis, Aristotle University of Thessaloniki; Petros Bithas, University of Patras; Mathiopoulos Panayiotis, Institute for Space Applications & Remote Sensing
6. **Capacity Analyses of Group Cell**
Xiaofeng Tao, Chao Tang, Xiaodong Xu, Ping Zhang, Beijing University of Posts and Telecommunications
7. **Cellular Network Coverage Optimization Through the Application of Self-Organizing Neural Networks**
Carl Debono, Julian Buhagiar, University of Malta
8. **Frequency Hopping Plan with Radio Network Synchronization**
James Shi, Ericsson inc.

Wednesday, September 28, 9.15 - 12.15 Laliqie Ballroom II

5H: Channel Estimation and Multimedia Delivery

Chair: Thierry Klein, Lucent

1. **An efficient low-cost LS equalization in COFDM based UWB systems by utilizing channel-state-information (CSI)**
Wenzhen Li, OKI Techno Centre (Singapore) Pte Ltd; Zhongjun Wang, Yanxin Yan, Masayuki Tomisawa, Oki Techno Centre (Singapore) Pte Ltd
2. **WPDM System Based on FSE and ML Algorithm for Multipath Fading Channel**
Lei Zhou, Jiandong Li, Xidian University
3. **An Adaptive M-Algorithm Convolutional Decoder**
Seyed Ali Gorji Zadeh, M. Reza Soleymani, Concordia University
4. **Analysis of EIED Backoff Algorithm for the IEEE 802.11 DCF**
Nah-Oak Song, Byung-Jae Kwak, Electronics and Telecommunications Research Institute; Leonard Miller, NIST
5. **Transferring Multimedia Files using Adaptive Transmission in Infostation Technology**
Yahya Al-Harhi, Ahmed Tewfik, Mohamed-Slim Alouini, University of Minnesota
6. **Multimedia Content Delivery using Infostations**
John Bush, James Irvine, John Dunlop, University of Strathclyde
7. **Real-Time Communications over Multilayer Satellite Networks**
Arjan Durrezi, Louisiana State University; Sastri Kota, Harris Corporation

Wednesday, September 28, 9.15 - 12.15 Waterford A

5I: Smart antennas

Chair: Alexander Wyglinski, University of Kansas

1. **Simulation of Location Accuracies Obtainable From Different Methods (Invited Paper)**
H. Bertoni and J.W. Suh, New York Polytechnic Institute
2. **Effect of Mobile Motion on the Spatial Characteristics of the Channel**
Noor Khan, Mohammed Simsim, Predrag Rapajic, The University of New South Wales
3. **2-D DOA Estimation with No Failure**
Nizar Tayem, Hyuck Kwon, Wichita State University; Yong Hoon Lee, KAIST
4. **FOA and 2-D DOA Estimation with Propagator Method**
Nizar Tayem, Hyuck Kwon, Wichita State University; Seunghyun Min, Donghee Kang, Samsung Electronics
5. **Smart Antenna System for OFDM based WLAN**
Fakhrul Alam, Massey University; Mursalin Habib, Ayon Quayum, Anindita Talukdar, Sonia Islam, Mashaeikh Hossain, BUET
6. **Neural Network Identification and Performance Assessment of a Multipath Time-Varying Satellite Channel**
Quazi Rahman, St. Francis Xavier University; Mohamed Ibnkahla, Mohamed Bayoumi, Queen's University
7. **Scalar Network Analysis of Wireless Channels Using IEEE 802.11g Transmissions**
Jessica Hess, Benjamin Henty, Daniel Stancil, Carnegie Mellon University
8. **Performance of Optimum Combining with Channel Estimation Errors**
Balkan Kecicioglu, Murat Torlak, Univ. of Texas, Dallas; Adnan Kavak, Kocaeli University

Wednesday, September 28, 9.15 - 12.15 Waterford B

5J: Fading Channels

Chair: Paraskevas Polydorou, Simon Fraser University

1. **Performance of alpha-EM-MLSE receivers over frequency-selective fading channels**
Tsan-Ming Wu, Chung Yuan Christian University
2. **Optimum Block Adaptive Algorithm for Gradient Based Independent Component Analysis(OBA/ICA) for Time Varying Wireless Channels**
Wasfy Mikhael, University of Central Florida; Tianyu Yang, Embry-Riddle Aeronautical University
3. **Robust Blind Beamforming Algorithm Using Joint Multiple Matrix Diagonalization (JMMD)**
Hsiao-Chun Wu, Xiaozhou Huang, Louisiana State University
4. **Adaptive Full Diversity Full Rate Codes with Channel State Information**
Peilu Ding, David Love, Jianqi Wang, Michael Zoltowski, Purdue University
5. **Cooperative Relaying in Wireless Networks with Local Channel State Information**
Xinmin Deng, Alexander Haimovich, New Jersey Institute of Technology

6. **Channel-Aware Routing Protocol for Wireless Ad-Hoc Networks: Generalized Multiple-Route Path Selection Diversity**
Jia Liu, Annamalai Annamalai, Virginia Tech.
7. **Training-based frequency domain channel estimation for multiple antenna transmissions over multiple channels**
Yang Yang, Lehigh University; Yong Huat Chew, Tjeng Thiang Tjhung, Institute for Infocomm Research
8. **A Conditional Combining Hybrid Diversity Receiver Using Differential Detection**
Paraskevas Polydorou, Paul Ho, Simon Fraser University

Wednesday, September 28, 9.15 - 12.15 Colonade A

5K: Mobile networks

Chair: Ryuji Wakikawa, KEIO University

1. **A Lower Bound for Vehicles' Trajectory Duration**
Jerome Haerri, Eurecom Institute; Christian Bonnet, Institut Eurecom
2. **An Automated Interference Analyzer for Terrestrial Services in Border Areas**
Ill-Keun Rhee, Hannam University; Jang-Ho Kwak, Radio Research Laboratory; Dae-Sub Oh, Electronics and Telecommunications Research Institute
3. **Influence of Velocity on the Handover Delay associated with a Radio-Signal-Measurement-based Handover Decision**
Marc Emmelmann, Technical University of Berlin
4. **Performance Evaluation of two Location-Based Routing Protocols in Vehicular Ad-Hoc Networks**
Raul Santos, University of Sheffield; Arthur Edwards, Omar Alvarez, University of Colima
5. **Flexible Mobility Models Towards Uniform Nodal Spatial Distribution and Adjustable Average Speed**
Chun-Hung Chen, Ho-Ting Wu, Kai-Wei Ke, National Taipei University of Technology
6. **Frequency Reuse for Cellular Multi-Hop Networks**
Hans-Martin Zimmermann, Munich University of Technology; Matthias Lott, Siemens AG
7. **Experimentation of Networked Vehicle with Multihomed Mobile Router**
Ryuji Wakikawa, KEIO University; Kazuyuki Tasaka, KDDI R&D Laboratories Inc.; Keisuke Uehara, Jun Murai, KEIO University
8. **MP2P Network as an Information Diffusion Channel**
Jani Kurhinen, Jarkko Vuori, University of Jyväskylä

Wednesday, September 28, 9.15 - 12.15 Colonade B

5L: Energy efficient Sensor Networks

Chair: Mohammad Atiqzaman, University of Oklahoma

1. Hierarchical Battery Aware Routing in Wireless Sensor Networks

Ravi Musunuri, Jorge Cobb, The University of Texas at Dallas

2. Approaches of Combining STBC and Node Selection in Energy Efficient Wireless Sensor Networks

Anxin Li, Tsinghua University

3. An Energy-Efficient Protocol For Wireless Sensor Networks

Hsiao-Lan Hsu, Qilian Liang, University of Texas at Arlington

4. Energy Efficient Multi-mode Operation for Networked Wireless Sensors

Shanchieh Yang, Niranjana Krishnamurthi, Cory Cress, Moises Sudit, Rochester Institute of Technology

5. An Energy-Balanced Transmission Scheme for Sensor Networks

Zhaoyu Liu, University of North Carolina at Charlotte

6. Delay-bounded Adaptive Power Saving for Ad hoc and Sensor Networks

Maryam Owrang, Diba Mirza, Curt Schurgers, University of California, San Diego

7. An Ultra-low-power Medium Access Control Protocol for Body Sensor Network

Huaming Li, Jindong Tan, Michigan Technological University

8. Sensor Placement for Maximizing Wireless Sensor Network Lifetime

Moez Esseghir, University of Paris 6; Nizar Bouabdallah, Alcatel Research & Innovation and University of Paris 6; Guy Pujolle, University of Paris 6

Wednesday, September 28, 9.15 - 12.15 Spectrum A/B

5M: Power Systems

Chair: TBA

1. An Overview of DOE's Advanced Technology Development Program (Invited Paper)

G. Henriksen and D. Dees, (Argon National Lab.) T. Duong, and D. Howell, (USDOE)

2. Nickel-Metal Hydride and Lithium-Ion Batteries for HEV Applications: Performance, Limitations and Recommendations for Improvement (Invited Paper)

J. McBreen, H. S. Lee, W. S. Yoon and K. Y. Chung, Brookhaven National Labs

3. Development and Characterization of Li-Ion Batteries for the FreedomCAR Advanced Technology Development Program (Invited Paper)

Peter Roth and Dan Doughty, Sandia National Labs

4. Low-PMEPR OFDM Transmission with an Iterative Receiver Technique for Cancellation of Nonlinear Distortion

António Gusmao, Instituto Superior Técnico

5. Average modeling of Diesel Auxiliary Power Unit for Series Hybrid Electric Vehicles

He Bin, Tsinghua University

Wednesday, September 28, 14.15 - 17.15 Crystal Ballroom I

6A: MIMO V

Chair: Fumiyuki Adachi, University of Tohoku

- 1. EXIT Chart Analysis of Bayesian MMSE Turbo Receiver for Coded MIMO Systems**
Sumei Sun, Yan Wu, Yuan Li, Tjeng Thieng Tjhung, Institute for Infocomm Research
- 2. Precoding in the Multiuser MIMO Downlink Based on Subspace Tracking Techniques**
Yongle Wu, Jinfan Zhang, Shidong Zhou, Xibin Xu, Tsinghua University
- 3. Capacity Bound of MIMO Systems with MPSK Modulation and Superimposed Pilots**
Yifei Zhao, Ming Zhao, Xibin Xu, Jing Wang, Tsinghua University
- 4. Effects of Channel Estimation Errors on Receiver Selection Combining Schemes for Alamouti MIMO Systems**
Wenyu Li, Norman Beaulieu, University of Alberta
- 5. Performance of MIMO Spatial Multiplexing in Indoor Line-of-Sight Environments**
Yasutaka Ogawa, Hiroshi Nishimoto, Toshihiko Nishimura, Takeo Ohgane, Hokkaido University
- 6. Optimal Differential Detection and Performance Analysis of Orthogonal Space-Time Block Codes over Semi-Identical MIMO Fading Channels**
Meixia Tao, Pooi-Yuen Kam, National University of Singapore
- 7. A Novel Adaptive Equalization algorithm for MIMO communication system**
Liang Zhou, University of Science and Technology of China
- 8. Robustness of Space-Time Coding in Spatially Correlated Fast Fading MIMO Channels**
Bruno Clerckx, Université catholique de Louvain

Wednesday, September 28, 14.15 - 17.15 Crystal Ballroom II

6B: Cooperative Transmission

Chair: Sang Wu Kim, Iowa State University

- 1. Adaptive Forwarding and Coding in Cooperative Spatial Multiplexing**
Sang Wu Kim, Iowa State University
- 2. Participation strategy for cooperative diversity with multiple partners**
Young Seok Jung, Seoul National Univ.; Jae Hong Lee, Seoul National University; JoonhoLee Lee, Hanwook Jung, Convergence Lab. KT
- 3. Experimental Performance Evaluation of Joint Cooperative Diversity and Scheduling**
Ingmar Hammerstroem, Jian Zhao, Stefan Berger, Armin Wittneben, Swiss Federal Institute of Technology (ETH) Zurich
- 4. Imperfectly Synchronized Cooperative Network Using Distributed Space-Frequency Coding**
Yimin Zhang, Genyuan Wang, Moeness Amin, Villanova University
- 5. Relay Techniques in MIMO Wireless Networks**
Hui Shi, Tetsushi Abe, Takahiro Asai, Hitoshi Yoshino, NTT DoCoMo, Inc.

Wednesday, September 28, 14.15 - 17.15 Crystal Ballroom III

6C: Adaptive transmission/Power control

Chair: Rapeepat Ratasuk, Motorola Inc.

- 1. The Throughput Performance of an Optimum Bit and Power Allocation**
GuoPing Tan, National Mobile Communication Research Lab., Southeast University
- 2. Power Control of the High Speed Shared Control Channel**
Rapeepat Ratasuk, Weimin Xiao, Amitava Ghosh, Nick Whinnett, Fan Wang, Motorola Inc
- 3. NFSK/LPSK Modulation Scheme for EDGE**
Ari Viinikainen, Jarkko Vuori, Fei Liu, University of Jyväskylä
- 4. Closed-loop Precoding Based on Code Distance Allocation for Spatial Multiplexing Systems**
Shi Feng, Southeast University
- 5. System Level Performance Evaluation of Spatial Multiplexing with Per Common Basis Rate Control**
Do-Youn Kim, Yonsei University in Seoul
- 6. Optimum Power and Rate Adaptation with Imperfect Channel Estimation for MQAM in Rayleigh Flat Fading**
Ali Olfat, Mohammad Shikh-Bahaei, King's College London
- 7. The Effect of Beam Control Error on the Power Efficiency of Transmit-Beamforming Basestations**
Brian Sepko, Wookwon Lee, University of Arkansas-Fayetteville

Wednesday, September 28, 14.15 - 17.15 Crystal Ballroom VI

6D: CDMA – VI

Chair: G. Dattatreya, University of Texas, Dallas

- 1. High-Data-Rate Availability in WCDMA Enhanced Uplink Systems**
Eva Englund, Y.-P. Eric Wang, Christer Edholm, Ericsson Research; Jung-Fu Cheng, Ericsson Inc; Carmela Cozzo, Maria Edvardsson, Ke Wang Helmersson, Ericsson Research
- 2. Adaptive MCS level selection scheme for HSDPA in W-CDMA system**
Sangho Nam, Goo-hyun Park, Changeon Kang, Daesik Hong, Yonsei University.
- 3. Turbo Multiuser Detection with Integrated Channel Estimation for Differentially coded Asynchronous CDMA Systems**
Shahram Talakoub, Behnam Shahrrava, University of Windsor
- 4. Chip-Interleaved DS-CDMA Transmission over Time-varying Channels**
Yanxin Na, Mohammad Saquib, Univ Texas Dallas; Moe Win, Massachusetts Institute of Technology
- 5. Minimum Probability of Error Detection for Asynchronous Uplink MC-CDMA**
Prateek Dayal, IIT Guwahati, India; Uday Desai, IIT Bombay
- 6. Analysis of Quality Based HSDPA Access Algorithms**
Klaus Pedersen, Nokia Networks

7. Resource Allocation Framework for QoS Provisioning in HSDPA

Xu Binyang, University of Electronic Sci. and Tech. of China

8. UMTS Soft Handover Algorithm with Adaptive Thresholds for Load Balancing

Jing Li, Chen Fan, Dacheng Yang, Beijing University of Posts and Telecommunications; Jian Gu, Nokia (China) Investment Co.

6. Dimensioning and system level analysis of an HSDPA network with relaying nodes

Sunil Vadgama, Michael Hart, Fujitsu Laboratories of Europe Ltd

7. Regulate the Call Blocking of Mobile Routers in Emerging Mobile/Wireless Cellular Networks

Monir Hossain, Mahbub Hassan, University of New South Wales

Wednesday, September 28, 14.15 - 17.15 Crystal Ballroom VII

6E: 802.11 networks – II

Chair: Hamid Sharif, University of Nebraska-Lincoln

1. Notes on the Inefficiency of 802.11e HCCA

Claudio Casetti, Carla-Fabiana Chiasserini, Marco Fiore, Michele Garetto, Politecnico di Torino

2. A Call Admission Control Algorithm for 802.11e EDCA-enhanced WLANs

Claudio Casetti, Carla-Fabiana Chiasserini, Politecnico di Torino; Alberto Conte, Philippe Dauchy, Alcatel; Marco Veglio, Politecnico di Torino

3. Adaptive Radio Channel Allocation for Resolving Coexistence Issues between 802.15.4 and 802.11b

Chulho Won, Jong-Hoon Youn, Hesham Ali, University of Nebraska at Omaha; Hamid Sharif, University of Nebraska Lincoln; Jitender Deogun, University of Nebraska-Lincoln

4. Performance of IEEE 802.11b under mobile railroad environments

Ting Zhou, Hamid Sharif, Michael Hempel, University of Nebraska-Lincoln; Song Ci, University of Massachusetts Boston

5. Analysis of Access Point Selection Strategy in Wireless LAN

Yutaka Fukuda, Akihiro Fujiwara, Masato Tsuru, Yuji Oie, Kyushu Institute of Technology

Wednesday, September 28, 14.15 - 17.15 Crystal Ballroom VIII

6F: Relaying and Routing Mechanisms

Chair: Hlaing Minn, University of Texas, Dallas

1. Analysis of Incremental Relaying Protocol with RCPC in Cooperative Diversity Systems

Poramate Tarasak, Korea Advanced Institute of Science and Technology; Hlaing Minn, University of Texas at Dallas; Yong Hoon Lee, KAIST

2. Improving the Uplink Data Rate of Portable Devices in Broadband Systems with Relaying

Philippe Sartori, Kevin Baum, Mark Cudak, Brian Classon, Motorola Labs

3. Capture Effect on R-ALOHA Protocol for Inter-Vehicle Communications

Xiaomin Ma, Oral Roberts University

4. Enhancement of Cellular IP Routing by Redirection at Crossover Base Stations

Junn-Yen Hu, Chun-Chuan Yang, National Chi-Nan University

5. Interference-aware Routing with Bandwidth Requirements in Mobile Ad Hoc Networks

María Canales, José-Ramón Gállego, Angela Hernández-Solana, Antonio Valdovinos, University of Zaragoza

6G: Scheduling/Cross layer Issues

Chair: TBA

1. A Cross-layer Scheme to Improve TCP Performance in UMTS with Packet Scheduling

Xiaoli Wang, Beijing University of Posts and Communications; Jian Gu, Nokia (China) Investment Co.

2. Power-Sensitive Fair Scheduling in Multiple Antenna Systems

Heng Wang, Qualcomm Inc.

3. Performance Evaluation of Proportional Fair Scheduling Algorithm with Measured Channels

Manuel Rubio, Aalborg University; Troels Sorensen, AAU; Preben Mogensen, Aalborg University; Klaus Pedersen, Nokia Networks

4. Performance Analysis of Dynamic Packet Scheduling within a cdma2000 Broadcast Network

Kyungtae Kang, Yongwoo Cho, Heonshik Shin, Seoul National University

5. Wireless Packet Scheduling for Integrated Services of Real-time and Non-real-time Applications in Mobile Broadband Wireless

Kim Dong-Hoi, Electronics and Telecommunications Research Institute; Kang Chung-Gu, Korea University; Song Pyeong-Jung, Yeon-seung Shin, Bong-Ju Lee, ETRI

6. Packet Scheduling Algorithms for Providing QoS on UMTS Downlink Shared Channels

Enrico Natalizio, Antonella Molinaro, Salvatore Marano, D.E.I.S. University of Calabria

7. Load Sharing With Buffering Over Heterogeneous Networks

Danyan Chen, Concordia University

8. Adaptive Connection Admission Control Scheme for High Data Rate Mobile Networks

Sang Soo Jeong, Jeung Ae Han, Wha Sook Jeon, Seoul National University

Wednesday, September 28, 14.15 - 17.15 Laliq Ballroom II

6H: UWB – III

Chair: TBA

1. Probability Analysis of Error for UWB Systems with Suboptimal Receivers in Multipath Environment

Qimei Cui, Xiaofeng Tao, Ping Zhang, Beijing University of Posts and Telecommunications

2. A New Spatial Model for Impulse-based Ultra-Wideband Channels

Swaroop Venkatesh, Vivek Bharadwaj, Michael Buehrer, Virginia Tech

3. Optimal system design considerations for the ultra-wideband multipath channel

Wasim Malik, David Edwards, Christopher Stevens, University of Oxford

- 4. Analysis of Undetected Direct Path in Time of Arrival Based UWB Indoor Geolocation**
Bardia Alavi, Kaveh Pahlavan, Worcester Polytechnic Institute

Wednesday, September 28, 14.15- 17.15 Waterford A

6I: Beamforming and MIMO

Chair: Dunmin Zheng, Mobile Satellite Ventures

- 1. Broadband multiple satellite MIMO system**
Fumihiro Yamashita, Kiyoshi Kobayashi, Masazumi Ueba, Masahiro Umehira, NTT Corporation
- 2. Adaptive Beam-Forming with Interference Suppression and Multi-user Detection in Satellite System with Terrestrial Reuse of Frequencies**
Dunmin Zheng, Peter Karabinis, Mobile Satellite Ventures, LP
- 3. Dual-Branch Diversity Receivers over Correlated Rician Fading Channels**
Petros Bithas, University of Patras; George Karagiannidis, Aristotle University of Thessaloniki; Nikos Sagias, University of Athens; Dimitris Zogas, University of Patras; Mathiopoulos Panayiotis, Institute for Space Applications & Remote Sensing
- 4. Effect of Wavelength, Building Blockage and Terminal Antenna Pattern Upon LEO Satellite Coverage in Urban and Suburban Environments**
Jueren Ma, David Michelson, University of British Columbia

Wednesday, September 28, 14.15 - 17.15 Waterford B

6J: Capacity Issues

Chair: Lorenzo Favalli, Università di Pavia

- 1. Performance Analysis of Multi-Rate 802.11 WLANs Under Finite Load And Saturation Conditions**
Osama Abu-Sharkh, Ahmed Tewfik, Univ. of Minnesota
- 2. Efficacy of Channel-and-Node Aware Routing Strategies in Wireless Ad Hoc Networks**
Jia Liu, Annamalai Annamalai, Virginia Tech.
- 3. Infrastructure Support Increases the Capacity of Ad Hoc Wireless Networks**
Jeong-woo Cho, Korea Advanced Institute of Science and Technology; Seong-Lyun Kim, Yonsei University; Song Chong, Korea Advanced Institute of Science and Technology (KAIST)
- 4. Design of Link Layer Protocols for Error Recovery in IP/cdma2000 Interconnections**
Vikas Paliwal, Parsa Larijani, Ioannis Lambadaris, Biswajit Nandy, Carleton University
- 5. Effect of Layer 2 Connection Setup on Performance of SIGMA**
Shaojian Fu, Mohammed Atiqzaman, University of Oklahoma; William Ivancic, NASA Glenn Research Center
- 6. Performance Comparison of Different TCP Schemes over UTRA Channels**
Lorenzo Favalli, Matteo Lanati, Pietro Savazzi, Francesco Tarantola, University of Pavia
- 7. Cellular SFN Broadcast Network Modelling and Performance Analysis**
Yakun Sun, Kenneth Stewart, Robert Love, Motorola Inc.; Kevin Baum, Brian Classon, Vijay Nangia, Philippe Sartori, Motorola Labs

- 8. On the Performance of Broadcasting Schemes Over One-Dimensional MANETs**
Hao Zhang, Zhong-Ping Jiang, Polytechnic University

Wednesday, September 28, 14.15 - 17.15 Colonade A

6K: Next generation, Dissemination

Chair: Hong Huang, New Mexico State University

- 1. Long Range Passive RFID-Tag for Sensor Networks**
Hitoshi Kitayoshi, Kunio Sawaya, Tohoku University
- 2. Symbiotic Highway Sensor Network**
Michael Brownfield, Nathaniel Davis, Virginia Polytechnic Institute and State University
- 3. DISCOUNT: A Hybrid Probability-Based Broadcast Scheme for Wireless Ad Hoc Networks**
Chin Kai Hsu, Chien Chen, National Chiao Tung University, Taiwan
- 4. On-Demand Data Dissemination in Large Wireless Sensor Networks**
Jong-Hoon Youn, Ramdharna Kalva, Chulho Won, University of Nebraska
- 5. A Distributed Approach to Contour Line Extraction Using Sensor Networks**
Pei-Kai Liao, University of Southern California; Min-Kuan Chang, National Chung Hsing University; C.C. Jay Kuo, University of Southern California
- 6. An Analytical Model for The Energy Hole Problem In Many-To-One Sensor Networks**
Jian Li, Prasant Mohapatra, University of California, Davis
- 7. A Sensor Net Sampling Scheme for Observing Distributed Phenomena**
Hong Huang, New Mexico State University
- 8. On the Tradeoffs of an Adaptive QoS-constrained Data Collection Process in Sensor Networks**
Symeon Papavassiliou, Jin Zhu, New Jersey Institute of Technology

Wednesday, September 28, 14.15 - 17.15 Colonade B

6L: Location estimation

Chair: TBA

- 1. Kernel Information for Hyperbolic Localization**
Qun Wan, Wan Lin Yang, University of Electronic Science and Technology of China; Ming Hui Wang, Sichuan University
- 2. Volume Estimator for Hyperbolic Location**
Qun Wan, Xiao Feng Shen, Wan Lin Yang, University of Electronic Science and Technology of China; Ying Ning Peng, Tsinghua University
- 3. Simplified Algorithm for Location Service for the UMTS**
Jacek Stefanski, Gdansk University of Technology
- 4. Open Platform Test Framework for Telematics Terminal Platform**
Sang Gi Hong, Electronics and Telecommunication Research Institute
- 5. An Efficient Transmission of Traffic and Traveler Information using Digital Multimedia Broadcasting Network**
Sammo Cho, Young Ho Jeong, Geon Kim, Chung Hyun Ahn, Soo-In Lee, Electronics and Telecommunications Research Institute; Hyuckjae Lee, Information and Communications University

6. The Synergic Localization System (SLS)

Simone Frattasi, University of Aalborg; Marco Monti, University of Rome;
Ramjee Prasad, Aalborg University

Wednesday, September 28, 14.15 - 17.15 Spectrum A/B

6M: Capacity and Cost

Chair: TBA

1. Study on the issue of provisioning broadband services: The case of Malaysia

Tejinder Singh, Moh Lim Sim, BT Multimedia

2. A secure and reliable local payment system

Gianluigi Me, Università di Roma "Tor Vergata", Dipartimento di Informatica, Sistemi e Produzione; Alex Schuster, Fakultät Informatik, Technische Universität München, Germany

3. New loop circulator structure with high isolation for time division duplexing radio systems

Jaeho Jung, Electronic and Telecommunications Research Institute

4. Capacity Enhancement of Uplink Channel Through Spatial Reusing in Multihop Cellular Networks

Ki-Ho Lee, Korea Advanced Institute of Science and Technology; Han Ki-Young, Samsung Electronics Co.; Jee-young Song, KAIST; Dong-Ho Cho, Korea Advanced Institute of Science and Technology

5. A Correction for Ad hoc On Demand Multipath Distance Vector Routing protocol (AOMDV)

Valeria Loscri, Floriano De Rango, University of Calabria

6. Signaling Cost Evaluation of SIGMA

Shaojian Fu, Mohammed Atiquzzaman, University of Oklahoma; William Ivancic, NASA Glenn Research Center

7. Voice over IP (VoIP) over Cellular: HRPD-A and HSDPA/HSUPA

Weimin Xiao, Amitava Ghosh, Robert Love, Dennis Schaeffer, Motorola, Inc.

