

## Final Program for *ISCIT 2007*

Tuesday, October 16, 2007

9:00 AM - 12:00 PM

**Tutorial A: Research Challenges in Mobility Management for Next Generation Networks**

2:00 PM - 5:00 PM

**Tutorial C: IPv6 Mobility Support**

Wednesday, October 17, 2007

7:45 AM - 8:15 AM

Opening

8:15 AM - 9:00 AM

**Keynote Speech:**

**Directions in Radio Frequency Integrated Circuit Design in the Deep Sub-Micron Era**

Prof. Neil Weste, Founder and Director, NHEW R&D Pty Ltd

9:15 AM - 11:00 AM

**W2A - Circuits and Systems I**

**Chair:** Soura Dasgupta (The University of Iowa, USA)

***Performance Analysis of FIR Digital Filter Design: RNS Versus Traditional***

Shahana T. Kassim (Cochin University of Science and Technology, India); Rekha James (CUSAT, India); Babita Jose (Cochin University of Science and Technology, India); Poullose K (Cochin University of Science and Technology, India); Sasi Sreela (Gannon University, USA)

***Optimal Multibit Digital to Analog Conversion***

Eduardo Silva (The University of Newcastle, Australia); Daniel Quevedo (The University of Newcastle, Australia); Graham Goodwin (the University of Newcastle, Australia)

***Memory Polynomial Digital Predistortion for Power Amplifiers***

Cuiping Yu (Beijing university of posts and telecommunications, P.R. China); Yongsheng Feng (Beijing university of posts and telecommunications, P.R. China); Yuanan Liu (Beijing Univ. of Posts and Telecom, P.R. China); Gang Xie (BUPT, P.R. China)

***Development of a Dual-planar RFID Tag at 2.44GHz***

Amit Rawal (Monash University, Australia); Nemai Karmakar (Monash University, Australia)

***A novel method for re-routing in OBS networks***

Stein Gjessing (University of Oslo and Simula Research Lab., Norway)

***Quick Response Circuit for Low-Power LDO Voltage Regulators***

Heng Soheat (University of Electro-Communications, Japan)

**W2B - VLSI**

**Chair:** Nor Haron (Universiti Teknikal Malaysia Melaka, Malaysia)

***A Novel SOI LDMOS with A Trench Gate and Field Plate and Trench Drain for RF Applications***

Haipeng Zhang (Hangzhou Dianzi University, P.R. China); Lifei Jiang (Hangzhou Dianzi University, P.R. China); Lingling Sun (Hangzhou Dianzi University, P.R. China); Wenjun Li (Hangzhou Dianzi University, P.R. China); Lei Zhou (Hangzhou Dianzi University, P.R. China); Boxing Hua (Hangzhou Dianzi University, P.R. China); Liyan Xu (Hangzhou Dianzi University, P.R. China); Mi Lin (Hangzhou Dianzi University, P.R. China)

***High-performance BiCMOS Current Controlled CDBA and application***

Phamorn Silapan (Uttaradit Rajabhat University, Thailand); Winai Jaikla (Suan Sunandha Rajabhat University, Thailand); Montree Siripruchyanun (King Mongkut's Institute of Technology North Bangkok, Thailand)

***Response Dependent Condensation Based Macromodeling for Linear Time Varying High Speed VLSI Interconnects***

Ravindra Jayanthi (Center for VLSI and Embedded Systems Technologies, India); Srinivas Mandalika (International Institute of Information Technology, India)

***ZigBee-Compliant Fully-Integrated Delta-Sigma Analog-to-Digital Converters Implemented in 0.25um CMOS Process***

Tanya Vanessa Abaya (University of the Philippines, Philippines); Christina Lei Manio (University of the Philippines, Philippines); Marjo Kristina Marasigan (University of the Philippines, Philippines); Maria Theresa Gusad (University of the Philippines, Philippines); Marc Rosales (University of the Philippines, Diliman, Philippines); John Richard Hizon (University of the Philippines, Diliman, Philippines)

***A Very Low Phase Noise Fully Integrated CMOS Quadrature LC Oscillator for 2.4 GHz Bluetooth/WLAN Applications***

Oussama Frioui (Provence Materials and Microelectronics Laboratory, France); Lakhdar Zaid (L2MP-University of Provence, France); Wenceslas Rahajandraibe (L2MP-University of Provence, France); Fayrouz Haddad (L2MP-University of Provence, France)

***Design and Implementaion of CMOS Rail-to-Rail Operational Amplifiers***

Arnold Abram Manzano (University of the Philippines, Philippines); Michael Angelo Lorenzo (University of the Philippines, Philippines); Maria Theresa Gusad (University of the Philippines, Philippines); John Richard Hizon (University of the Philippines, Diliman, Philippines); Marc Rosales (University of the Philippines, Diliman, Philippines)

**W2C - OFDM I**

**Chair:** Tungsang Ng (University of Hong Kong, Hong Kong)

***Nonlinear Distortion Reduction for the Improvement of the BER Performance in OFDM Communication Systems***

Heung-Gyoon Ryu (Chungbuk National University, Korea); Cheng-Xiang Wang (Heriot-Watt University, United Kingdom); Sang Burm Ryu (Chungbuk National University, Korea)

***Interleaving Method without Side Information for the PAPR Reduction of OFDM System***

Heung-Gyoon Ryu (Chungbuk National University, Korea); Sang-Kyun Kim (Chungbuk National University, Korea); Sang Burm Ryu (Chungbuk National University, Korea)

***A New approach to BSOFDM - Parallel Concatenated Spreading Matrices OFDM***

Ibrahim Raad (University of Wollongong, Australia); Xiaojing Huang (University of Wollongong, Australia)

***Peak-to-Average Power Ratio Performance of Interleaved Spread Spectrum OFDM Signals***

Pingzhou Tu (University of Wollongong, Australia); Xiaojing Huang (University of Wollongong, Australia); Eryk Dutkiewicz (University of Wollongong, Australia)

***Using hyperbolic tangent sigmoid transfer function for companding transform in OFDM system***

Gang Yang (Xidian University, P.R. China); Yunfeng Zhou (Xidian University, P.R. China); Shixiang Qian (Electronic test & measure technology national laboratory, P.R. China)

***PAPR Reduction in the OFDM System Employing Tone Reservation Based On FFT/IFFT***

Gang Yang (Xidian University, P.R. China); Zhengjie Yang (Xidian University, P.R. China); Jianhua Xu (Electronic Test & Measurement Technology National Lab, P.R. China)

***A fair and effective adaptive resource allocation method for multi-user OFDM systems***

Mingyu Zhou (Beijing University of Posts and Telecommunications, P.R. China); Lihua Li (Beijing University of Posts and Telecommunications (BUPT), P.R. China); Minghua Zhong (WTI Institute, BUPT, P.R. China)

**11:15 AM - 1:00 PM**

**W3A - Circuits and Systems II**

**Chair:** Gordana Jovanovic Dolecek (INAOE, Mexico)

***A Novel Cascade Sigma-Delta Modulator Architecture for Broadband Applications***

Xiao Yang (Xi'an Jiaotong University, P.R. China); Gui-can Chen (Xi'an Jiaotong University, P.R. China); Jun Cheng (Xi'an Jiaotong University, P.R. China); Hong Zhang (Xi'an Jiaotong University, P.R. China)

***A Novel Current-mode Multiplier/Divider Employing Only Single Dual-Output Current Controlled CDTA***

Winai Jaikla (Suan Sunandha Rajabhat University, Thailand); Montree Siriruchyanun (King Mongkut's Institute of Technology North Bangkok, Thailand)

***High speed analog-to-digital converter design verification tests in satellite receivers***

SeokJin Kim (University of Maryland, College Park, USA); Martin Peckerar (University of Maryland at College Park, USA)

***FEM Analysis of the Impact of Coaxial Connector on High Speed Signal Transmission***

Jian Zhu (Beijing University of Posts and Telecommunications, P.R. China); Jinchun Gao (Beijing University of Posts and Telecommunications, P.R. China); Gang Xie (BUPT, P.R. China); Yuanan Liu (Beijing Univ. of Posts and Telecom, P.R. China)

***Gaining Insights in Analog Design via Geometric Programming***

Theerachet Soorapanth (National Electronics and Computer Technology Center, Thailand)

***A Design of Rectangular Wave Delta Modulation Buck Regulator***

Kriangkrai Sooksood (King Mongkut's Institute of Technology North Bangkok, Thailand); Jitkasame Ngarmnil (Mahanakorn University of Technology, Thailand)

***Development of a Low-Cost Semi-Passive Transponder for Sensor Applications at 2.4GHz***

Stevan Preradovic (Monash University, Australia); Nemaï Karmakar (Monash University, Australia); Isaac Balbin (Monash University, Australia)

**W3B - Embedded Systems**

**Chair:** Saeid Nooshabadi (UNSW, Australia)

***Modeling and Simulation of Microcode Memory Built-in Self Test Architecture for Embedded Memories***

Nor Haron (Universiti Teknikal Malaysia Melaka, Malaysia); Amir Shah Abdul Aziz (Universiti Teknikal Malaysia Melaka (UTeM), Malaysia)

***Convolutional Vector Symbol Decoder Phase II on FPGA: Correct with Second Choice***

Usana Tuntoolavest (Kasetsart University, Thailand); Auttaphud Seubnaung (Kasetsart University, Thailand); Rachanon Intharasakul (Kasetsart University, Thailand)

***On the FPGA Implementation of the Fourier Transform over Finite Fields  $GF(2^m)$***

Ali Al Ghouwayel (Supélec, France)

***Source Code Arrangement of Embedded Java Virtual Machine for NAND Flash Memory***

Chun-Chieh Lin (National Taiwan University, Taiwan); Chuen-Liang Chen (National Taiwan University, Taiwan); Ching-Hsu Tseng (National Taiwan University, Taiwan)

***Reconfigurable On-Chip Debugger with a Real-Time Tracer***

Jun Pang (Chinese Academy of Sciences, P.R. China); Lei Shi (Chinese Academy of Sciences, P.R. China)

***Implementation and Analysis of Configurable Real-Time Address Trace Compressor for Embedded Microprocessors***

Lei Shi (Institute of Acoustics, Chinese Academy of Sciences, P.R. China)

***Fast FPGA Prototyping of a Multipath Fading Channel Emulator via High-Level Design***

Jeng-Kuang Hwang (Yuan-Ze University, Taiwan)

**W3C - OFDM II**

**Chair:** Heung-Gyoon Ryu (Chungbuk National University, Korea)

***Iterative Multiuser Detection in Uplink OFDMA***

Surajit Jati (Freescale Semiconductor Pvt Ltd, India)

***Optimizing Initial Ranging Region Allocation in IEEE 802.16 OFDMA Systems***

Jihua Zhou (Institute of Computing Technology, Chinese Academy of Sciences, P.R. China); Eryk Dutkiewicz (University of Wollongong, Australia); Di Pang (Institute of Computing Technology, Chinese Academy of Sciences, P.R. China); Jinlong Hu (Chinese Academy of Sciences, P.R. China); Jinglin Shi (Institute of Computing Technology, Chinese Academy of Sciences, P.R. China)

***Diversity Performance of Interleaved Spread Spectrum OFDM Signals over Frequency Selective Multipath Fading Channels***

Pingzhou Tu (University of Wollongong, Australia); Xiaojing Huang (University of Wollongong, Australia); Eryk Dutkiewicz (University of Wollongong, Australia)

***Preamble-Based Time Synchronization for OFDM WLAN Systems***

Qi Cheng (University of Western Sydney, Australia); Wanzhi Qiu (National ICT Australia, Australia)

***Generalized Suboptimum Decoding for STTC-OFDM Systems in MIMO Rayleigh Fading Channels***

Young Ju Kim (Chungbuk National University, Korea); Xun Li (Chungbuk National University, P.R. China); Noeyoon Park (Chungbuk National University, Korea)

***Maximum-Likelihood Co-Channel Interference Cancellation with Power Control for Cellular OFDM Networks***

Manar Mohaisen (Inha University, Korea); KyungHi Chang (Inha University, Korea)

***Capacity Analysis of Simple and Opportunistic Feedback Schemes in OFDMA Systems***

Bang Chul Jung (Korea Advanced Institute of Science and Technology, Korea); Tae Won BAN (Korea Advanced Institute of Science and Technology, Korea); Wan Choi (Information and Communications University, Korea); Dan Keun Sung (Korea Advanced Institute of Science and Technology, Korea)

**2:00 PM - 3:45 PM**

**W4A - Circuits and Systems III**

**Chair:** Pham Cong-Kha (The University of Electro-Communication, Japan)

***Current Controlled Current Conveyor Transconductance Amplifier (CCCCTA): A Building Block for Analog Signal Processing***

Winai Jaikla (Suan Sunandha Rajabhat University, Thailand); Montree Siripruchyanun (King Mongkut's Institute of Technology North Bangkok, Thailand)

***Low-Component Electronically Controllable Dual-Mode Universal Biquad Filter Using DO-CCCIIs***

Winai Jaikla (Suan Sunandha Rajabhat University, Thailand); Phamorn Silapan (Uttaradit Rajabhat University, Thailand); Montree Siripruchyanun (King Mongkut's Institute of Technology North Bangkok, Thailand)

***Floating Capacitance Multiplier Using DVCC and CCCIIs***

Winai Jaikla (Suan Sunandha Rajabhat University, Thailand); Montree Siripruchyanun (King Mongkut's Institute of Technology North Bangkok, Thailand)

***Low Power High Speed Switched Current Comparators for Current Mode ADC***

Yong Sun (Harbin Institute of Technology, P.R. China)

***High Speed Standard Cell using Bootstrapped Technology for LTPS TFT***

Takafumi Sato (Tokai University, Japan)

***Gigabit Ethernet Application of Low-Threshold Vertical-Cavity Surface-Emitting Laser***

Mohd Sharizal Alias (Telekom Malaysia Research & Development, Malaysia)

***A Simple Quadrature Oscillator Using Only CCCDBAs and Grounded Capacitors***

Winai Jaikla (Suan Sunandha Rajabhat University, Thailand); Phamorn Silapan (Uttaradit Rajabhat University, Thailand); Montree Siripruchyanun (King Mongkut's Institute of Technology North Bangkok, Thailand)

**W4B - Filters**

**Chair:** Theerachet Soorapanth (National Electronics and Computer Technology Center, TH)

***Compact Decimation Filter for Constant-Input Oversampling Sigma-Delta Modulators***

Chian C. Ho (National Yunlin University of Science and Technology, Taiwan)

***Optimal Design of Triplet Halfband Filter Banks via Semidefinite Programming***

Kha Ha (University of New South Wales, Australia); H.d. Tuan (UNSW, Australia); Truong Nguyen (University of California in San Diego, USA)

***A Study on Equation Error Algorithm Based on Correlation Function***

Ryuichi Kanagawa (Tottori University, Japan); Naoto Sasaoka (Tottori University, Japan)

***Modified CIC Filter for Rational Sample Rate Conversion***

Gordana Jovanovic Dolecek (INAOE, Mexico)

***Compensated CIC-Cosine Decimation Filter***

Fernando Javier Trejo Torres (Institute INAOE, Mexico); Gordana Jovanovic Dolecek (INAOE, Mexico)

***A low-voltage active-RC filter for wideband communication transceivers***

Joongho Choi (University of Seoul, Korea)

***Radio Frequency Passive Polyphase Filter Design for Wireless Communications***

Fayrouz Haddad (L2MP-University of Provence, France); Wenceslas Rahajandraibe (L2MP-University of Provence, France); Oussama Frioui (Provence Materials and Microelectronics Laboratory, France); Lakhdar Zaid (L2MP-University of Provence, France); Rachid Bouchakour (L2MP - University of Provence, France)

**W4C - MIMO I**

**Chair:** Le Chung Tran (University of Luebeck, Germany)

***Distributed MIMO systems using Asterism decoding***

Phillip Conder (Victoria University, Australia); Mehran Abolhasan (University of Wollongong, Australia); Jason Gao (Victoria University, Australia)

***Capacity Analysis of MIMO-OFDM Broadband Channels In Populated Indoor Environments***

Jishu Das Gupta (University of Southern Queensland, Australia); Karla Ziri-Castro (University of Southern Queensland, Australia); Hajime Suzuki (CSIRO, Australia)

***Exact Pairwise Error Probability of Distributed Space-Time Coding in Wireless Relays Networks***

Trung Duong (Kyung Hee University, Korea); Ngoc-Tien Nguyen (Ministry of Posts and Telematics, Vietnam); Viet-Kinh Nguyen (University of Technology - Hanoi National University, Vietnam)

***Real-Time Wideband MIMO Demonstrator***

Hajime Suzuki (CSIRO, Australia); Boyd Murray (CSIRO, Australia); Alex Grancea (CSIRO, Australia); Robert Shaw (CSIRO, Australia); Joseph Pathikulangara (CSIRO, Australia); Iain Collings (CSIRO ICT Centre, Australia)

***Performance Analysis for AM in MIMO-OFDM Systems***

Aimin Yang (Beijing University of Posts and Telecommunications, P.R. China); Gang Xie (BUPT, P.R. China); Ranran Zhang (Beijing University of Posts and Telecommunications, P.R. China); Bihua Tang (Beijing University of Posts and Telecommunications, P.R. China); Yuanan Liu (Beijing Univ. of Posts and Telecom, P.R. China)

***An Improved Quantization Scheme for Lattice-Reduction Aided MIMO Detection***

Duc Nguyen (University of Electro-communications, Japan)

**4:00 PM - 5:45 PM**

**W5A - Circuits and Systems IV**

**Chair:** Haipeng Zhang (Hangzhou Dianzi University, P.R. China)

***Realization of OTA-C Current-mode universal filter based on Two Type Integrators Loop***

Pipat Prommee (King Mongkut's Institute of Technology Ladkrabang, Thailand)

***Characteristics of a Single-Feed Planar Antenna for Electric and Magnetic Fields Reception***

H. Uchida (Tokai University, Japan)

***Simple Fabrication and Evaluation of Multi-mode Polymer Optical Waveguides for Next Generation FTTH Systems***

Okihiro Sugihara (Tohoku University, Japan)

***Displacement Estimation Based on Model Calibration in Weak Feedback Optical Self-Mixing System***

Lu Wei (University of Wollongong, Australia); Jiangtao Xi (University of Wollongong, Australia);  
Joe Chicharo (University of Wollongong, Australia)

***Characteristic of Half Basic E-type Planar Antennas with an Elliptical Element***

K. Miyajima (Tokai University, Japan)

***An Aperture Coupled Patch Antenna System with MEMS-based Reconfigurable Polarization***

Andrew Weily (CSIRO ICT Centre, Australia); Y Jay Guo (Wireless Technologies Lab, CSIRO  
ICT Centre, Australia)

**W5B - Systems**

**Chair:** Y Jay Guo (Wireless Technologies Lab, CSIRO ICT Centre, Australia)

***Communication Scheme of Airport Over-ground Traffic Navigation System***

Tomas Zelinka (Czech Technical University of Prague, Czech Republic); Miroslav Svitek (Czech  
Technical University of Prague, Czech Republic)

***Design and Implementation of an Embedded Surveillance System with Video Streaming Recording Triggered by an Infrared Sensor Circuit***

Y. Bai (Fu Jen Catholic University, Taiwan); Jui-Po Hsu (Fu Jen Catholic University, Taiwan);  
Hen Teng (Fu Jen Catholic University, Taiwan); Hsing-Eng Lin (Fu Jen Catholic University,  
Taiwan)

***A Novel Hybrid Scheme of Interrupt Enabling -Disabling and Polling (EDP) for High-Speed Computer Networks***

Salman AlQahtani (King Fahd Security College, Saudi Arabia)

***Continuous-time Fuzzy Control and Learning Methods***

Miika Valtonen (Tampere University of Technology, Finland); Antti-Matti Vainio (Tampere  
University of Technology, Finland); Jukka Vanhala (Tampere University of Technology, Finland)

***Novel Feature Extraction Method based on Fuzzy Entropy and Wavelet Packet Transform for Myoelectric Control***

Rami Khushaba (University of Technology, Sydney, Australia); Adel Al-Jumaily (University of Technology Sydney, Australia); Ahmed Al-Ani (University of Technology, Sydney, Australia)

***Solving Large Scale Problems using Estimation Distribution Algorithm with Arithmetic Coding***

Worasait Suwannik (Kasetsart University, Thailand)

***Dictionary Based Estimation of Distribution Algorithms***

Chalermsub Sangkavichitr (Chulalongkorn University, Thailand); Prabhas Chongstitvatana (Chulalongkorn University, Thailand)

**W5C - MIMO II**

**Chair:** Hajime Suzuki (CSIRO, Australia)

***Optimizing Transmission Strategy on Single-user MIMO Systems under the Influence of Antenna Mutual Coupling***

Shiyang Lu (University of Queensland, Australia); Hon Tai Hui (University of Queensland, Australia); Marek E. Bialkowski (University of Queensland, Brisbane, Australia); Xia Liu (University of Queensland, Australia)

***The Largest Eigenvalue Characteristic of Correlated Complex Wishart Matrices and its Application to MIMO MRC Systems***

Xianyi Rui (Shanghai Jiaotong University, P.R. China); Rong Hong Jin (Shanghai Jiao Tong University, P.R. China); Junping Geng (Shanghai Jiaotong University, P.R. China); Xiaojing Huang (University of Wollongong, Australia)

***Space-Time-Frequency Codes in MB-OFDM UWB Communications: Advanced Order-8 STFC and its Performance***

Le Chung Tran (University of Luebeck, Germany); Alfred Mertins (Institute for Signal and Image Processing, University of Luebeck, Germany); Eryk Dutkiewicz (University of Wollongong, Australia); Xiaojing Huang (University of Wollongong, Australia)

***Achieving Probabilistic Robustness for Multiuser SIMO Uplink With Gaussian Channel Uncertainty***

Gan Zheng (The University of Hong Kong, Hong Kong); Kai Kit Wong (University College London, United Kingdom); Tungsang Ng (University of Hong Kong, Hong Kong)

***Optimal Robust Bit and Power Allocation for MIMO Systems***

Ranran Zhang (Beijing University of Posts and Telecommunications, P.R. China); Aimin Yang (Beijing University of Posts and Telecommunications, P.R. China); Gang Xie (BUPT, P.R. China); Yuanan Liu (Beijing Univ. of Posts and Telecom, P.R. China); Bihua Tang (Beijing University of Posts and Telecommunications, P.R. China)

***Iterated SISO MUD for Synchronous Uncoded CDMA Systems over AWGN Channel: Performance Evaluation in Overloaded Condition***

Ferry Wathan (University of Surrey, United Kingdom); Reza Hoshyar (University of Surrey, United Kingdom); Rahim Tafazolli (University of Surrey, United Kingdom)

***Adaptive QRD-M Detection with Variable Number of Surviving Paths for MIMO Systems***

Wei Peng (University of Hong Kong, Hong Kong); Shaodan Ma (The University of Hong Kong, P.R. China); Tungsang Ng (University of Hong Kong, Hong Kong); Jiangzhou Wang (University of Kent, United Kingdom)

**Thursday, October 18, 2007**

**8:15 AM - 9:00 AM**

**Keynote Speech**

**Mobile Networks – (R)evolution from 3G to LTE**

Dr Jürgen Schindler, Vice President, LTE Business Development, Nokia Siemens Networks

**9:15 AM - 11:00 AM**

**T2B - Cellular and Integrated Systems I**

**Chair:** Pyung-Soo Kim (Korea Polytechnic University, Korea)

***A Channel Control Technique for a Hyper Multi-point Data Gathering Satellite Communication System***

Katsuya Nakahira (NTT Access Network Service Systems Laboratories, NTT Corporation, Japan); Satoshi Harada (NTT, Japan); Kiyoshi Kobayashi (NTT Access Network Service Systems Laboratories, NTT Corporation, Japan); Kohei Ohata (NTT Network Innovation Laboratories, NTT Corporation, Japan)

***A study on session setup for group communications in Push-to-talk over Cellular using rich Presence***

Lan Wang (DoCoMo Beijing Comm. Labs, P.R. China); Daqing Gu (DoCoMo Beijing Comm. Labs, P.R.China)

***A Study on RAT Selection Algorithms in Combined UMTS/GSM Networks***

Leijia Wu (University of Technology, Sydney, Australia); Kumbesan Sandrasegaran (University of Technology, Sydney, Australia)

***Continuous Threshold Model for Multi-service Wireless Systems with PCT1 and PCT2 Traffic***

Mariusz Glabowski (Poznan University of Technology, Poland)

***Blocking Probability Calculation in UMTS Networks with Bandwidth Reservation, Handoff Mechanism and Finite Source Population***

Mariusz Glabowski (Poznan University of Technology, Poland); Maciej Stasiak (Poznan University of Technology, Poland); Maciej Sobieraj (Poznan University of Technology, Poland)

***Analytic Modeling of the UMTS Enhanced Uplink in Multi-Cell Environments with Volume-Based Best-Effort Traffic***

Tuo Liu (University of Sydney, Australia); Andreas Maeder (University of Wuerzburg, Germany); Dirk Staehle (University of Wuerzburg, Germany); David Everitt (NICTA, Australia)

***Performance of Adaptive Power Control in Presence of Loop Delays***

Rachod Patachianand (University of Technology, Sydney, Australia); Kumbesan Sandrasegaran (University of Technology, Sydney, Australia)

**T2C - Media Processing I**

**Chair:** Supavadee Aramvith (Chulalongkorn University, Thailand)

***Novel H.264/AVC Flexible Macroblock Ordering Based on Wavelet-Domain Partition***

Chian C. Ho (National Yunlin University of Science and Technology, Taiwan)

***On-demand foveation for Motion-JPEG2000 encoded imagery***

René Rosenbaum (University of Rostock, Germany); Heidrun Schumann (University of Rostock, Germany)

***Low Resources Algorithm for Video Surveillance***

Alberto Dassatti (Politecnico di Torino, Italy); Guido Masera (Politecnico di Torino, Italy); Mario Nicola (Politecnico di Torino, Italy); Fabrizio Vacca (Politecnico di Torino University, Italy)

***Audio Classification in a Weighted SVM***

Wenjuan Pan (Xidian University, P.R. China); Yong Yao (Xidian University, P.R. China); Zhijing Liu (Xidian University, P.R. China); Weiyao Huang (Xidian University, P.R. China)

***Intelligent Multimedia Delivery? It's a question of semantics***

Joseph Thomas-Kerr (University of Wollongong, CRC for Smart Internet Technology, Australia); Ian Burnett (University Of Wollongong, Australia); Christian Ritz (University of Wollongong, Australia)

***The MPEG-7 Query Format: A New Standard in Progress for Multimedia Query by Content***

Kevin Adistambha (University of Wollongong, Australia); Mario Doeller (University of Passau, Germany); Ruben Tous (Universitat Politecnica de Catalunya (UPC), Spain); Matthias Gruhne (Fraunhofer IDMT, Germany); Masanori Sano (NHK Science and Technical Research Laboratories, Japan); Chrisa Tsinaraki (Technical University of Crete, Greece); Stavros Christodoulakis (Technical University of Crete, Greece); Kyoungro Yoon (Konkuk University, Korea); Christian Ritz (University of Wollongong, Australia); Ian Burnett (University Of Wollongong, Australia)

***Fast Mode Decision for Inter-prediction in H.264/AVC***

Bin Zhan (University of Hertfordshire, United Kingdom); Baochun Hou (University of Hertfordshire, United Kingdom); Reza Sotudeh (University of Hertfordshire, United Kingdom)

**11:15 AM - 1:00 PM**

**T3B - Cellular and Integrated Systems II**

**Chair:** David Everitt (NICTA, Australia)

***SDR Based Multiple Access Technique for Multimedia Applications***

Murugaiyan Saravanan (Dr.M.G.R. University, India); S Ravi (Dr.M.G.R. University, India)

***An Enhanced Capacity and Fairness Scheme for MIMO-OFDMA Downlink Resource Allocation***

Bin Da (National University of Singapore, Singapore); Chi Chung Ko (National University of Singapore, Singapore); Yanfen Liang (Nanyang Technological University, Singapore)

***Packet Scheduling Algorithm for NRT Service in Wireless System supporting Integrated Services of RT and NRT Applications***

Dong Hoi Kim (Kangwon National University, Korea); Hyo Su Kim (Kangwon National University, Korea); Doo Won Lee (Kangwon National University, Korea)

***Performance Study of New Adaptive Power Control Algorithm***

Rachod Patachayanand (University of Technology, Sydney, Australia); Kumbesan Sandrasegaran (University of Technology, Sydney, Australia)

***Performance Analysis of Four Different Downlink Data Relaying Schemes in Cellular Systems***

Min Suk Kang (Korea Advanced Institute of Science and Technology, Korea); Bang Chul Jung (Korea Advanced Institute of Science and Technology, Korea); Dan Keun Sung (Korea Advanced Institute of Science and Technology, Korea)

***Effects on CDMA Network Performance due to Degradation of GPS based Synchronization***

Faisal Khan (University of New South Wales, Australia); Andrew Dempster (University of New South Wales, Australia)

***Effect of Other-Cell interference on Multiuser Diversity in Cellular Networks***

Seong Hwan Kim (Korea Advanced Institute of Science and Technology, Korea); Bang Chul Jung (Korea Advanced Institute of Science and Technology, Korea); Dan Keun Sung (Korea Advanced Institute of Science and Technology, Korea)

**T3C - Media Processing II**

**Chair:** Christian Ritz (University of Wollongong, Australia)

***A Novel Image De-noising Algorithm Combined ICM with Morphology***

Yide Ma (School of Information Science & Engineering, Lanzhou University, P.R. China); Hongjuan Zhang (School of Information Science & Engineering, Lanzhou University, P.R. China)

***A H.264 Video Decoder with Scheme of Efficient Bandwidth Optimization for Motion Compensation***

Yu Lei (Shenzhen Graduate School of Peking University, P.R. China); Hui Li (Peking University, P.R. China); Kai Huang (Peking University, P.R. China); Yongchun Leng (ShenZhen Graduate School of Peking University, P.R. China); Zhihua Zheng (Shenzhen Polytechnic University, P.R. China)

***A Testbed of Erasure Coding on Video Streaming System over Lossy Networks***

Xingjun Zhang (Aston University, UK, United Kingdom)

***Quality Scalable Low Delay Video Coding using Leaky Base Layer Prediction***

Steffen Kamp (RWTH Aachen University, Germany); Mathias Wien (Univ. Aachen, Germany)

***A Unified Computing Kernel for MDCT/IMDCT in Current Audio Coding Standard***

Tan Li (Spreadtrum Communications (Shanghai) Co.Ltd, P.R. China); Fuhuei Lin (Spreadtrum Communications Inc., P.R. China); Reed Zhang (Spreadtrum, P.R. China); Min Yang (Spreadtrum Shanghai, P.R. China); Heyun Huang (Spreadtrum Communications Inc., P.R. China)

***Footstep Classification Using Wavelet Decomposition***

Akitoshi Itai (Aichi Prefectural University, Japan); Hiroshi Yasukawa (Aichi Prefectural University, Japan)

***A discriminant approach to sports video classification***

Nattachai Watcharapinchai (Chulalongkorn University, Thailand); Supavadee Aramvith (Chulalongkorn University, Thailand); Supakorn Siddhichai (National Electronics and Computer Technology Center, Thailand); Sanparith Marukatat (National Electronics and Computer Technology Center, Thailand)

**2:00 PM - 3:45 PM**

**T4B - Internet I**

**Chair:** Doan Hoang (University of Technology, Sydney, Australia)

***Error Probability Analysis of IP Time To Live Covert Channels***

Sebastian Zander (Swinburne University of Technology, Australia); Philip Branch (Swinburne University of Technology, Australia); Grenville Armitage (Swinburne university of technology, Australia)

***MPTCP: Concept of a Flow Control Protocol Based on Multiple Paths for the Next Generation Internet***

Foued Melakessou (University of Luxembourg, Luxembourg); Ulrich Sorger (University of Luxembourg, Luxembourg); Zdzislaw Suchanecki (University of Luxembourg, Luxembourg)

***Design and Implementation of the High Speed TCP/IP Offload Engine***

Shen-Ming Chung (Industrial Technology Research Institute, Taiwan); Chun-Yi Li (Industrial Technology Research Institute, Taiwan); Hsiao-Hui Lee (Industrial Technology Research Institute, Taiwan); Yau Cheng Tsai (ITRI, Taiwan); Chi-Chun Chen (Industrial Technology Research Institute, Taiwan); Jeng-Han Li (Industrial Technology Research Institute, Taiwan)

***Improving Multipath Live Streaming Performance with Markov Decision Processes***

Vinh Bui (University of New South Wales, Australia); Weiping Zhu (University of New South Wales, Australia)

***A packet-bursting based method to improve MAC layer fairness without throughput reduction***

Tetuya Shigeyasu (Hiroshima International University, Japan); Hiroshi Matsuno (Yamaguchi@University, Japan); Norihiko Morinaga (Hiroshima International University, Japan)

***Statistical Study of Unusual DNS Query Traffic***

Dennis Ludena Romana (Kumamoto University, Japan); Yasuo Musashi (Kumamoto University, Japan); Hirofumi Nagatomi (KUMAMOTO University, Japan); Kenichi Sugitani (Kumamoto University, Japan)

***Identification of P2P Traffic Based on the Content Redistribution Characteristic***

Xing Lu (Tsinghua University, P.R. China); Haixin Duan (Tsinghua University, P.R. China); Xing Li (Tsinghua University, P.R. China)

**T4C - Image Processing I**

**Chair:** Kaliappan Gopalan (Purdue University Calumet, USA)

***Non-Intrusive Eye Gaze Direction Tracking Using Color Segmentation And Hough Transform***

David Bong (Universiti Malaysia Sarawak, Malaysia)

***Semantic Human Image Classification Based on Energy-Action Model***

Sirinporn Chinpanchana (King Mongkut's University of Technology Thonburi, Thailand)

***Proposal of Pattern Matching Using Log Autocorrelation on Radon Transform***

Makoto Hasegawa (Kinki University, Japan)

***Image Enhancement for DNA Microarray Gridding Using Conditional Convolution Sub-Block Histogram Equalization***

Laurence Pap (University of Western Sydney, Australia); Ju Jia Zou (University of Western Sydney, Australia)

***When is an optimal transform coder orthonormal?***

Xuejie Song (Univ of Iowa, USA); Soura Dasgupta (The University of Iowa, USA)

***Two-Dimensional Random Subspace Analysis for Face Recognition***

Parinya Sanguansat (Chulalongkorn University, Thailand); Widhyakorn Asdornwised (Chulalongkorn University, Thailand); Sanparith Marukatat (National Electronics and Computer Technology Center, Thailand); Somchai Jitapunkul (Chulalongkorn University, Thailand)

## **T4D - Network Routing**

**Chair:** Jinglin Shi (Institute of Computing Technology, Chinese Academy of Sciences, P.R. China)

### ***QoS-aware Multicast Balance Tree Routing Algorithm on EPFTS***

Haiying Wang (Southwest Jiaotong University, P.R. China)

### ***Route optimization solution for nested mobile network in local mobility domain with multiple local mobility anchors***

LiHua Lu (Beijing University of Posts and Telecommunications, P.R. China)

### ***Integration of MIP-ROQS Optimal Path Selection and MPLS***

Azimeh Sefidcon (Concordia University, Canada); Ferhat Khendek (Concordia University, Canada)

### ***Location-Based QoS Routing in Wireless Networks in the Presence of Location Errors***

Inhee Oh (The University of New South Wales, Australia); Robert Malaney (University of New South Wales, Australia)

### ***On the Characteristics of BGP Routes***

Kwan-Wu Chin (University of Wollongong, Australia); Julien Clément (University of Wollongong, Australia)

### ***TRDP: A Trusted Router Discovery Protocol***

Jun Zhang (Institute of Computing Technology, Chinese Academy of Sciences, P.R. China); Jing Liu (Institute of Computing Technology, Chinese Academy of Sciences, P.R. China); Zhijun Xu (Institute of Computing Technology, Chinese Academy of Sciences, P.R. China); Jun Li (Institute of Computing Technology, Chinese Academy of Sciences, P.R. China); Xin-min Ye (Inner Mongolia University, P.R. China)

**4:00 PM - 5:45 PM**

## **T5A - QoS and Resource Allocation**

**Chair:** Sebastien Ardon (National ICT Australia, Australia)

### ***Multiobjective Optimized Bipartite Matching for Resource Allocation***

Fanglei Sun (The University of Hong Kong, P.R. China); Victor Li (University of Hong Kong, P.R. China); Zhifeng Diao (Arizona State Univ., USA)

### ***An Economic Policy Constrained Grid Resource Allocation Algorithm***

Yang Liu (Northwestern Polytechnical University, P.R. China)

### ***A scalable end-to-end QoS Architecture***

Doan Hoang (University of Technology, Sydney, Australia)

### ***Feasible Resource Allocation with Partial Channel Information for Grouped MC-CDMA Systems***

Yachen Wang (Beijing University of Posts and Telecommunications, P.R. China); Gang Xie (BUPT, P.R. China); Yuanan Liu (Beijing Univ. of Posts and Telecom, P.R. China); Na Li (Lucent Technologies (China), P.R. China)

### ***Experimental performance of DCCP over live satellite and long range wireless links***

Golam Sarwar (National ICT Australia Ltd (NICTA), Australia); Emmanuel Lochin (National ICT Australia Ltd (NICTA), Australia); Roksana Boreli (National ICT Australia, Australia)

***Fast Algorithms for Computing Parsimonious Estimates of QoS Measures***

Zalan Heszberger (Budapest University of Technology and Ec., Hungary); Jozsef Biro (Budapest University of Technology and Economics, Hungary); Vilmos Németh (Budapest University of Technology and Ec., Hungary)

***Proposal for a Wireless Mesh Network that Realizes Seamless Handover and Its Simulation Results***

Masashi Ito (Meijo University, Japan); Toshihiro Shikama (Fukui University of Technology, Japan); Akira Watanabe (Meijo University, Japan)

**T5B - Internet II**

**Chair:** John Zic (CSIRO ICT Centre, Australia)

***A Stable Adaptive PI Controller for AQM***

Jinsheng Sun (The University of Melbourne, Australia); Moshe Zukerman (The University of Melbourne, Australia); Marimuthu Palaniswami (University of Melbourne, Australia)

***Hierarchical Mobile IPv6 Based Fast Vertical Handover Scheme for Heterogeneous Wireless Networks***

Pyung-Soo Kim (Korea Polytechnic University, Korea)

***On Building An Internet Telephony Gateway***

Quan-Xin Zhang (Beijing Institute of Technology, P.R. China)

***External Dynamic Mapping Method for NAT Traversal***

Hidekazu Suzuki (Meijo University, Japan); Yuji Goto (Meijo University, Japan); Akira Watanabe (Meijo University, Japan)

***A Proposed Architecture for Context-Aware Mobility Management***

Jhoanna Rhodette Pedrasa (University of New South Wales, Australia); Aruna Seneviratne (University of New South Wales, Australia)

***Performance Evaluation of A Multi-Interface Model for Media Independent Handover***

Mo Li (University of Technology, Sydney, Australia); Kumbesan Sandrasegaran (University of Technology, Sydney, Australia); Tracy Tung (University of Technology, Sydney, Australia)

**T5C - Image Processing II**

**Chair:** Makoto Hasegawa (Kinki University, Japan)

***An Image Steganography Implementation for JPEG-Compressed Images***

Kaliappan Gopalan (Purdue University Calumet, USA)

***Reduced Workload Block Coding in JPEG2000***

Mike Dyer (University of New South Wales, Australia); Saeid Nooshabadi (UNSW, Australia); David Taubman (University of New South Wales, Australia)

***Robust Face Recognition Using The Modified Census Transform***

Woo-han Yun (Electronics and Telecommunications Research Institute, Korea); Hosub Yoon (ETRI, Korea); Do-Hyung Kim (Electronics and Telecommunications Research Institute, Korea); Su-young Chi (Electronics and Telecommunications Research Institute, Korea)

***A Successive Mean Splitting Algorithm for Contrast Enhancement and Dynamic Range Reduction***

Sylvia Shan (La Trobe University, Australia); Hua Ye (La Trobe University, Australia); Guang Deng (La Trobe University, Australia)

***A novel automatic red-eye detection and removal method***

Yi Wang (Spreadtrum Inc., P.R. China); Fuhuei Lin (Spreadtrum Communications Inc., P.R. China)

**T5D - Network Management**

**Chair:** Kostas Pentikousis (VTT Technical Research Centre of Finland, Finland)

***CIP - Cognitive Identification of Post-disaster Communications***

Sonia Majid (Asian Institute of Technology, Thailand); Kazi Ahmed (Asian Institute of Technology, Thailand)

***Integrating Object-oriented O:XML Semantics into Autonomic Decentralised Functionalities***

Fk Chiang (uni, Australia); Robin Braun (University of Technology, Sydney, Australia)

***Building and Controlling Customizable Satellite GS Networks***

Kayvan Farzaneh (IR Telecom Research Center, Iran); Leila Mohammady (Research center, Iran); Azam Eidi (ITRC, Iran)

***Research on Universal Network Performance Testing Model***

Changyou Xing (PLA University of Science and Technology, P.R. China); Zhang Min (Nanjing University of Science and Technology, P.R. China); Ming Chen (Institute of Communications Engineering, P.R. China)

***FDM: A Network Fault Diagnosis Model based on Knowledge and Reasoning***

Zhen Liu (Beijing Jiaotong University, P.R. China)

**Friday, October 19, 2007**

**8:00 AM - 8:15 AM**

**Awards Ceremony**

**8:15 AM - 9:00 AM**

**Keynote Speech**

**To solve the “out-of-the-box” problem**

Dr Neil Bird, Senior Director, Philips Research Europe

**9:15 AM - 11:00 AM**

**F2A - Channel Modelling and Equalization**

**Chair:** Iain Collings (CSIRO ICT Centre, Australia)

***Channel modelling for “through transformer” Power-Line Communication***

Andrew Mackie (La Trobe University, Australia)

***Channel Modeling and Capacity Evaluation for Relay-aided MIMO Systems in LOS Environments***

Lung-Sheng Tsai (National Taiwan University, Taiwan); Da-shan Shiu (National Taiwan University, Taiwan)

***Diversity Performance of Precoded OFDM with MMSE Equalization***

Xiaojing Huang (University of Wollongong, Australia)

***Iterative Frequency Domain Equalization for DQPSK Signals***

Pedro Pedrosa (ISR, Portugal); Rui Dinis (ISR-IST, Technical University of Lisbon, Portugal); Fernando Nunes (Instituto Superior Tecnico, Portugal)

***On statistics of the mobile Rayleigh fading channel in non-isotropic scattering environments***

Rauf Iqbal (Australian National University, Australia); Thushara Abhayapala (Australian National University, Australia)

***On wireless channel modelling : Extraction of channel from channel measurements***

Aastha Gupta (Australian National University, Australia); Thushara Abhayapala (Australian National University, Australia)

**F2B - Ad Hoc Networks**

**Chair:** Yasuo Musashi (Kumamoto University, Japan)

***Analytical support for MANET internetworks from war game data***

Peyam Pourbeik (Defence Science & Technology Organisation (DSTO), Australia); Alan Allwright (DSTO, Australia)

***Structural Dynamics of War Game MANETs***

Peyam Pourbeik (Defence Science & Technology Organisation (DSTO), Australia); Alan Allwright (DSTO, Australia)

***An Extended AODV Protocol for VoIP Application in Mobile Ad Hoc Network***

Hui Yao Zhang (University of Queensland, Australia); Marek E. Bialkowski (University of Queensland, Brisbane, Australia); Garry Einicke (CSIRO, Australia); John Homer (University of Queensland, Australia)

***Efficient Flooding for Wireless Ad Hoc Networks with Directional Antennas***

Xianlong Jiao (National University of Defense Technology, P.R. China); Xiaodong Wang (National University of Defense Technology, P.R. China); Xingming Zhou (National University of Defense Technology, P.R. China)

***Performance Analysis of Radio Standard Spanning Communication in Mobile Ad Hoc Networks***

Matthias Vodel (Chemnitz University of Technology, Germany); Mirko Caspar (Chemnitz University of Technology, Germany); Wolfram Hardt (Chemnitz University of Technology, Germany)

***A Survey on Control Separation Techniques in Multi-Radio Multi-channel MAC Protocols***

Jerry Chun-Ping Wang (University of Wollongong, Australia); Mehran Abolhasan (University of Wollongong, Australia); Farzad Safaei (Telecommunications and Information Technology Research Institute, University of Wollongong, Australia); Daniel Franklin (University of Wollongong, Australia)

***Fuzzy Path Selection for Routing in Energy-Limited Mobile Ad Hoc Networks***

Ukrit Arom-oon (King Mongkut's Institute of Technology North Bangkok, Thailand)

**F2C - (Localisation I) Localisation in Ad Hoc Networks**

**Chair:** Masakiyo Suzuki (Kitami Institute of Technology, Japan)

***Maximum Likelihood Localization of Wireless Networks using Biased Range Measurements***

Anthony Weiss (Tel Aviv University, Israel); Joseph Picard (Tel Aviv University, Israel)

***Localization Enhancement by Additional Nodes in Wireless Networks***

Anthony Weiss (Tel Aviv University, Israel); Joseph Picard (Tel Aviv University, Israel)

***A Platform for Radio Location Research in Ad Hoc and Sensor Networks***

Mark Hedley (CSIRO, Australia); Phil Ho (CSIRO, Australia); David Humphrey (CSIRO, Australia); Alija Kajan (CSIRO, Australia); Alex Grancea (CSIRO, Australia); Joseph Pathikulangara (CSIRO, Australia)

***Location-based DRM using WiFi Access-Points***

Martin Surminen (University of Wollongong, Australia); Nicholas Sheppard (University of Wollongong, Australia); Reihaneh Safavi-Naini (Center for Information Security, School of Information Technology and Computer Science, University of Wollongong, Australia)

***A Comparison of Cooperative Localisation Techniques for Wireless Mobile Sensor Networks***

Frank Engel (CSIRO, Australia); Mark Hedley (CSIRO, Australia)

***Fast Localization of Radio Frequency Emitters using Wireless Sensor Networks***

Mickey Batson (Naval Postgraduate School, USA); John McEachen (Naval Postgraduate School, USA); Murali Tummala (Naval Postgraduate School, Canada)

**F2E - Communication Signal Processing I**

**Chair:** Jinhong Yuan (University of New South Wales, Australia)

***Separable Kernel Design for Bilinear Time-Frequency Analysis of Digital Modulation Signals***

Jo Lynn Tan (Universiti Teknologi Malaysia, Malaysia); Ahmad Zuri Bin Sha'ameri (Universiti Teknologi Malaysia, Malaysia)

***An FFT-based Acquisition Scheme for DS-CDMA Systems***

Alexandre Almeida (Inst. Superior Ciências Trabalho Empresa, Portugal); Francisco Cercas (ISCTE - Instituto Superior das Ciências do Trabalho e da Empresa, Portugal); Rui Dinis (CAPS-IST, Portugal)

***Performance of postdetection EGC NCFSK and DPSK Systems over Two-Wave with Diffuse Power fading channels***

Wee Sit Lee (Victoria University, Australia)

***Automatic Analysis and Classification of Digital Modulation Signals Using Spectrogram Time-Frequency Analysis***

Jo Lynn Tan (Universiti Teknologi Malaysia, Malaysia); Ahmad Zuri Bin Sha'ameri (Universiti Teknologi Malaysia, Malaysia)

***Low Complexity Fourier Transform using Double Square-waves***

Hiroki Takahashi (Nara Institute of Science and Technology, Japan); Khoirul Anwar (Nara Institute of Science and Technology, Japan); Masato Saito (Nara Institute of Science and Technology, Japan); Minoru Okada (Nara Institute of Science and Technology, Japan)

***A novel simplex unscented transform and filter***

Li Wan-chun (University of Electronic Science and Technology of China, P.R. China)

***Practical Band Estimation for Periodic Superlattices by Using Semi-Infinite Periodic Model***

Kunihiko Asakura (Yonago National College of Technology, Japan); Hirofumi Sanada (Hokkaido Institute of Technology, Japan); Osamu Ogurisu (Kanazawa University, Japan); Masakiyo Suzuki (Kitami Institute of Technology, Japan)

**F2F - WSN I**

**Chair:** Sihui Zhou (CSIRO, Australia)

***Weight Based Adaptive Clustering for Large Scale Heterogeneous MANET***

Yi Wang (Xi'an Jiaotong University, P.R. China)

***MAC Design and Analysis for Wireless Sensor Networks with Co-operative Localisation***

Rajan Rengasamy (University of Wollongong, Australia); Eryk Dutkiewicz (University of Wollongong, Australia); Mark Hedley (CSIRO, Australia)

***Energy Efficient Local Area Source Routing Protocol of Underwater Sensor Networks in the Deep Ocean***

Eunjo Kim (Information and Communication University, Korea)

***Energy Efficient Routing for Achieving Shorter Latency in Sensor Networks***

Chiu-Kuo Liang (Chung Hua University, Taiwan)

***Emergence of Spatial Awareness in Self Configuring Sensor Networks***

Deepak Gangadhar (IBM Software labs, India)

***A new MAC protocol based on token ring in wireless sensor networks***

Fan Wu (Beijing University of Posts and Telecommunications, P.R. China); Bihua Tang (Beijing University of Posts and Telecommunications, P.R. China); Yuanan Liu (Beijing Univ. of Posts and Telecom, P.R. China); Lidong Zhai (Beijing University of Posts and Telecommunications, P.R. China); Gang Xie (BUPT, P.R. China)

***Dynamic Sensor Activation for Maximizing Network Lifetime under Coverage Constraint***

Ali Chamam (Ecole Polytechnique of Montreal, Canada); Samuel Pierre (Ecole Polytechnique de Montreal, Canada)

**11:15 AM - 1:00 PM**

**F3A - Channel Estimation**

**Chair:** Xiaojing Huang (University of Wollongong, Australia)

***Optimal CFO and Channel Estimation for OFDMA Uplink Using Importance Sampling***

Jianwu Chen (the University of Hong Kong, Hong Kong); Yik-Chung Wu (The University of Hong Kong, Hong Kong); Tungsang Ng (University of Hong Kong, Hong Kong)

***Orthogonal Affine Precoder Design for Jointly Optimal Channel Estimation and Symbol Detection in MIMO-OFDM Systems***

Tran Nguyen (The University of New South Wales, Australia); H.d. Tuan (UNSW, Australia); Ha Nguyen (University of Saskatchewan, Canada)

***Pilot Symbol Assisted Channel Estimation for Uplink MC-CDMA Systems using Parametric Channel Modeling***

Aditya Trivedi (ABV-Indian Institute of Technology and Management Gwalior, India); Rekha Gupta, (MITS, Gwalior, India)

***Channel Estimation for Spatially-Correlated MIMO based on Multipath Structure Estimation***

Ming Luo (Xi'an Jiao Tong University, P.R. China); Qinye Yin (XI'AN Jiaotong University, P.R. China); Bo Tian (Xi'an Jiaotong University, Xi'an P.R. China, P.R. China)

***Efficient Channel Estimation for OFDM Systems with Hierarchical Constellations***

Nuno Souto (Instituto Superior Técnico, Portugal); Rui Dinis (ISR-IST, Technical University of Lisbon, Portugal); Joao Silva (Lisbon Technical University (IST), Portugal)

***Channel Estimation with Pilot Symbol and Spatial Correlation Information***

Gang Xie (BUPT, P.R. China)

**F3B - WLAN and WWAN**

**Chair:** Alan Allwright (DSTO, Australia)

***Measured Improvement of Indoor Coverage for Fixed Wireless Loops with Multiple Antenna Receivers***

Luciano Ahumada (Universidad Diego Portales, Chile); Rodolfo Feick (Universidad Técnica Federico Santa María, Chile); Reinaldo Valenzuela (Lucent Technologies, USA); Cesar Hermosilla (UTFSM, Chile)

***An Integrated Synchronization Architecture for 802.11 WLAN Systems***

Jui-Yuan Lin (Southern Taiwan University of Technology, Taiwan)

***iDLS: inter-bss direct link setup in IEEE 802.11 WLANs***

Hayoung Yoon (Gwangju Institute of Science and Technology, Korea); Robert Hsieh (Deutsche Telekom Laboratories, Germany); JongWon Kim (GIST (Gwangju Institute of Science & Technology), Korea)

***Performance improvement of Haar-based wavelet packet modulation in multipath fading environment***

Shinsaku Maki (Nagoya Institute of Technology, Japan); Eiji Okamoto (Nagoya Institute of Technology, Japan); Yasunori Iwanami (Nagoya Institute of Technology, Japan)

***Framed-Slotted ALOHA with Estimation by Pilot Frame and Identification by Binary Selection***

Junbong Eom (University of SungKyunKwan, Korea); Tae-Jin Lee (Sungkyunkwan University, Korea)

***A Novel Smart-DCF Scheme for High-Speed WLANs***

Siwaruk Siwamogsatham (National Electronics and Computer Technology Center, Thailand)

**F3C - (Localisation II) WLAN, Cellular and AOA Localisation**

**Chair:** Mark Hedley (CSIRO, Australia)

***The Modified Chirp UWB Ranging System for Vehicular Applications***

Hanbing Shen (Inha University, Korea); Weihua Zhang (Inha University, Korea); Kyung Sup Kwak (Inha University, Korea)

***WLAN-Based Local Positioning using Distorted Template***

Harish Reddy (Tata Consultancy Services, India); Girish Chandra (Tata Consultancy Services, India); Harihara Subramanyam (Tata Consultancy Services, India); P. Balamuralidhar (Tata Consultancy Services, India); Jaydip Sen (Tata Consultancy Services, India); Deepika Arora (Tata Consultancy Services, India)

***Combined AOA/TOA UWB localization***

Stefan Galler (Leibniz University of Hannover, Germany); Jens Schroeder (Leibniz University of Hannover, Germany); Waldemar Gerok (Leibniz University of Hannover, Germany); Kyandoghere Kyamakya (University of Hanover, Germany); Thomas Kaiser (Leibniz University of Hannover, Germany)

***Radio Location Using Pattern Matching Techniques in Fixed Wireless Communication Networks***

Lei Qiu (Australian National University, Australia); Rodney Kennedy (Australian National University, Australia)

***An Algorithm for Finding the Best Solution of Stochastic ML Estimation of DOA***

Haihua Chen (Kitami Institute of Technology, Japan); Masakiyo Suzuki (Kitami Institute of Technology, Japan)

***Localization Verification and Distinguishability Degree in Wireless Networks using Received Signal Strength Variations***

Mohamed Salah Bouassida (Heudiasyc, France); Mohamed Shawky (HEUDIASYC UTC Compiègne, France)

***Advanced Localization of Mobile Terminal***

Marco Anisetti (University of Milan, Italy); Valerio Bellandi (University of Milan, Italy); Ernesto Damiani (University of Milan, Italy); Salvatore Reale (Siemens, Italy)

**F3D - Media Processing (S)**

***A Time Domain Based Efficient Block Decision Algorithm for Audio Coders***

Zakir Ahmed (Motorola India, India); Vijaya Yajnanarayana (Motorola India, India); Nirmal Sancheti (Motorola India Electronics Limited, India)

***Techniques to Improve Motion Compensation Performance of H264 Video Decoder using a Vector Processor.***

Vijaya Yajnanarayana (Motorola India, India); Raghavan Subramaniyan (Motorola India, India); Michael Schuette (Motorola Labs, USA)

***A Novel Fast Inter-mode Decision Algorithm With Rate-Distortion Optimization for H.264/AVC***

Fu Bo (Beijing University of Technology, P.R. China); Chuangbai Xiao (Beijing University of Technology, P.R. China)

***An Effective Method of Deblocking Filter for H.264/AVC***

Hao Chen (WuHan University, P.R. China); Ruimin Hu (Wuhan University, Hubei, China, P.R. China); Yuan Gao (WuHan University, P.R. China)

***Optimum Wavelet Design for Noise Reduction and Feature Extraction***

Behnam Molavi (Iran University of Science and Technology, Iran); Ali Sadr (Iran University of Science and Technology, Iran)

**F3E - Communication Signal Processing II**

**Chair:** Yoshikazu Miyanaga (Hokkaido University, Japan)

***Analysis of Maximal-Ratio Combining with Transmit Antenna Selection in Flat Nakagami-m Fading Channels for Arbitrary m***

Zhuo Chen (CSIRO ICT Centre, Australia); Chi Zhanjiang (the University of Sydney, Australia); Yonghui Li (the university of sydney, Australia); Branka Vucetic (The University of Sydney, Australia); Hajime Suzuki (CSIRO, Australia)

***Robust Watermarking with Improved Modified Spread Spectrum***

Tuan Thanh Nguyen (University of New South Wales, Australia); H.d. Tuan (UNSW, Australia); Truong Nguyen (University of California in San Diego, USA)

***Blind Multichannel Identification via Frequency Selection***

Song Wang (La Trobe University, Australia)

***Design and Implementation of a Chaotic Secure Communication System***

Hsi-Chiang Chou (Tung Nan Institute of Technology, Taiwan)

***Direct and Rapid P code Acquisition Technique***

Wang Na (PLA University of Science and Technology, P.R. China); QIN Yong (PLA University of Science and Technology, P.R. China); ZHANG Bang-ning (PLA University of Science and Technology, P.R. China)

***Design of Fully-Source-Involved LDPC Codes with Tripartite Graph***

Jun Ning (University of New South Wales, Australia); Jinhong Yuan (University of New South Wales, Australia)

**F3F - WSN II**

**Chair:** Li Cui (Institute of Computing Technology, P.R. China)

***A2-MAC: An Application Adaptive Medium Access Control Protocol for Data Collections in Wireless Sensor Networks***

Sihui Zhou (CSIRO, Australia); Ren Liu (CSIRO, Australia); David Everitt (NICTA, Australia); John Zic (CSIRO ICT Centre, Australia)

***Dynamic Sensor Nodes Selection Strategy for Wireless Sensor Networks***

Xue Wang (Tsinghua University, P.R. China); Sheng Wang (Tsinghua University, P.R. China); Daowei Bi (Tsinghua University, P.R. China)

***A new GTS allocation scheme for IEEE 802.15.4 networks with improved bandwidth utilization***

Liang Cheng (Georgia State University, USA); Anu Bourgeois (GSU, USA); Xin Zhang (Motorola, USA)

***Cluster Based Hierarchical Wireless Sensor Networks (CHWSN) and Time Synchronization in CHWSN***

Poonam Yadav (Indian Institute of Information Technology, India); Nagesh Yadav (Indian institute of information technology, Allahabad, India); Shirshu Varma (Indian Institute of Information Technology Allahabad, India)

***Lightweight Protocol Suite for Wireless Sensor Networks: Design and Evaluation***

Haiming Chen (Chinese Academy of Sciences, P.R. China); Changcheng Huang (Carleton University, Canada); Li Cui (Institute of Computing Technology, P.R. China)

***Optimal Power Analysis for Network Lifetime Balance in Wireless Sensor Networks***

Rongrong Wen (University of Melbourne, Australia); Iven Mareels (University of Melbourne, Australia); Brian Krongold (University of Melbourne, Australia)

***Analysis of Throughput in a ZigBee Network under the Presence of WLAN Interference***

Jo Woon Chong (Korea Advanced Institute of Science and Technology, Korea); Ho Young Hwang (Korea Advanced Institute of Science and Technology, Korea); Chang Yong Jung (Korea Advanced Institute of Science and Technology, Korea); Dan Keun Sung (Korea Advanced Institute of Science and Technology, Korea)

**2:00 PM - 3:45 PM**

**F4A - Coding and Detection I**

**Chair:** Nandana Rajatheva (Asian Institute of Technology, Thailand)

***Turbo Multiuser Detection for MC-CDMA Signals with Strongly Nonlinear Transmitters***

Rui Dinis (CAPS-IST, Portugal); Paulo Silva (University of Algarve, Portugal)

***Fast Simulation of Turbo Codes over AWGN Channels***

Upul Gunawardana (University of Western Sydney, Australia); Nguyen Chi (University of Western Sydney, Australia); Ranjith Liyana-Pathirana (University of Western Sydney, Australia)

***Optimization of Sliding Window Algorithm for Space-Time Turbo Trellis Codes***

Upul Gunawardana (University of Western Sydney, Australia); Nguyen Chi (University of Western Sydney, Australia); Ranjith Liyana-Pathirana (University of Western Sydney, Australia)

***Fixed-Point Performance of Space-Time Turbo Trellis Codes on Fast Fading Channels***

Upul Gunawardana (University of Western Sydney, Australia); Nguyen Chi (University of Western Sydney, Australia); Ranjith Liyana-Pathirana (University of Western Sydney, Australia)

***Joint Active Users' Identification and Multiuser Detection in Cell DS-CDMA System***

Chen Lianghai (Information Engineering University, P.R. China)

***Turbo Equalization using Particle Filtering with Grouping***

Ming (Matt) Ruan (Australian National University, National ICT Australia, Australia); Mark Reed (National ICT Australia, ANU, Australia); Zhenning Shi (National ICT Australia, Australia)

***Architecture of a low-complexity non-binary LDPC decoder for high order fields***

Adrian Voicila (University of Cergy-Pontoise ETIS, France); François Verdier (University of Cergy-Pontoise - ETIS Laboratory - ENSEA/CNRS UMR 8051, France); David Declercq (University of Cergy-Pontoise, France); Marc Fossorier (univ. of Hawaii, USA); Pascal Urard (ST Microelectronics, France)

**F4B - Security I**

**Chair:** Tomoaki Sato (Hirosaki University, Japan)

***Building an Evolvable Spoofing Prevention based on Trustworthy Coordination Model***

Lv GaoFeng (National University of Defense Technology, P.R. China)

***Securing Peer-to-Peer Overlay Networks from Sybil Attack***

Eng Keong Lua (University of Cambridge, United Kingdom)

***A High-Performance Clustering Scheme with Application in Network Intrusion Prevention System***

Chien-Hua Chiu (National Taiwan University, Taiwan); Jung-Feng Lin (National Taiwan University, Taiwan); Jiunn-Jye Lee (National Taiwan University, Taiwan); Chin-Laung Lei (National Taiwan University, Taiwan)

***Optimized Cryptographic Binding Protocol using MIPv6 over IEEE 802.16e***

Hyun-Seung Park (University of Korea, Korea)

***Secure mobile network handover with Neural cryptography***

Dong Hu (ZhongShan Torch Polytechnic, P.R. China)

***Genetic Algorithm Audio Watermarking using Multiple Image-based Watermarks***

Mahasak Ketcham (Chulalongkorn University, Thailand); Sartid Vongpradhip (Chulalongkorn University, Thailand)

**F4C - UWB**

**Chair:** Anthony Weiss (Tel Aviv University, Israel)

***Viability of Concurrent Transmission and Reception for UWB Radios over***

Ricardo Gandia (University of Wollongong, Australia); Xiaojing Huang (University of Wollongong, Australia); Kwan-Wu Chin (University of Wollongong, Australia)

***Enhanced Frequency Domain Spreading for WiMedia UWB***

Rabih Chrabieh (Qualcomm, Inc., USA); Samir Soliman (Qualcomm, Inc, USA)

***An Ultra-Wideband Transceiver Architecture for Wireless Endoscopes***

Chul Kim (University of New South Wales, Australia); Torsten Lehmann (University of New South Wales, Australia); Saeid Nooshabadi (UNSW, Australia); Ido Nevat (University of New South Wales, Australia)

***Adaptive Time Hopping PPM UWB Multiple Access Communication Schemes***

Gangadhar Biradar (Indian Institute of Technology, Bombay, India); S. n. Merchant (IIT Bombay, India); Uday Desai (IIT Bombay, India)

***Multi-Channel UWB System Design based on Wavelet Packets***

Hiroki Harada (Yokohama National University, Japan) , Marco Hernandez (Yokohama National University, Japan); Ryuji Kohno (Yokohama National University, Japan)

***Impulse Response Shortening through Limited Time Reversed Channel in MB OFDM UWB Systems***

Imtiaz Syed (University of New South Wales, Sydney, Australia); Jinhong Yuan (University of New South Wales, Australia); Jian Zhang (National ICT Australia, Australia)

**F4D - Systems, Services and Applications (S)**

***E-commerce Adaptation Using Ontologies for E-tourism***

Waralak Siricharoen (University of the Thai Chamber of Commerce, Thailand)

***A Decentralized RBAC Model and Its User-Role Administration***

Xiantao Zhang (Wuhan University, P.R. China); Qi Li (Tsinghua University, P.R. China); Sihan Qing (Institute of Software, Chinese Academy of Sciences, P.R. China); Huanguo Zhang (Computer School, Wuhan University, P.R. China); Liqiang Zhang (Wuhan University, P.R. China)

***Interoperability between Set-Top Box and Residential Gateway Platforms***

Norman Sheng (ITRI, Taiwan)

***Lane Detection for Driver Assistance and Intelligent Vehicle applications***

Craig D'Cruz (University Of Western Sydney, Australia); Ju Jia Zou (University of Western Sydney, Australia)

***Feasibility Study for ECommerce and ICT diffusion-adoption in EAC***

George Oreku (Harbin Institute Of Technology, P.R. China); Jianzhong Li (Harbin Institute of

***Automatic Crossbarbus-Based System Level Communication Synthesis***

Yafei Cao (National University of Defense Technology, P.R. China)

***RFHP: Robust Fast Handover Protocol in Hierarchical Mobile IPv6 Networks***

Byungjoo Park (Korea Telecommunication (KT), Korea); Youn-Hee Han (Korea University of Technology, Korea); Bongki Kim (KT IP Network Research Department, Korea); Jae-Hyoung Yoo (KT IP Network Research Department, Korea)

***HADNS: Hierarchically Advanced Domain Name Service in MIPv6 Networks***

Byungjoo Park (Korea Telecommunication (KT), Korea); Youn-Hee Han (Korea University of Technology, Korea); Bongki Kim (KT IP Network Research Department, Korea); Jae-Hyoung Yoo (KT IP Network Research Department, Korea)

***Dynamic Audit Fair Queueing***

Jui-Pin Yang (ITRI, Taiwan); Yi-Chang Zhuang (Industrial Technology Research Institute, Taiwan)

***Balanced Multi-Domain Topology-Aware Overlay Networks in Application-Layer Multicast***

Jianqun Cui (Huazhong Normal University, P.R. China); Yanxiang He (Wuhan University, P.R. China); Libing Wu (Wuhan University, P.R. China)

***Comparative Analysis of Resource Reservation Cost for Different RSVP Extension Schemes in Mobile Environments***

Yilin Song (Institute of Computing Technology, Chinese Academy of Sciences, P.R. China); Yi Sun (Institute of Computing Technology, Chinese Academy of Sciences, P.R. China); Min Liu (Institute of Computing Technology, Chinese Academy of Sciences, P.R. China); Eryk Dutkiewicz (University of Wollongong, Australia)

**F4E - Services and Applications I**

**Chair:** Eryk Dutkiewicz (University of Wollongong, Australia)

***Java2 Distributed Application development (Socket, RMI, Servlet, CORBA) approaches, XML-RPC and Web Services Functional analysis and Performance Comparison***

Jagannadham Dulipala (HP GDAS Bangalore, Anna University Tiruchirappalli, India, India); Veilumuthu Ramachandran (Anna University, India); H. N. Harish Kumar (VTU, India)

***Uninterrupted Staircase-Staggered Broadcasting Method for Simple and Efficient Video on Demand***

Hui-Chul Choi (Hanyang university, Korea); Seong-Min Joe (Hanyang university, Korea); Sung-kwon Park (Hanyang univ., Korea)

***Improving Inventory Control in a Small-to-Medium Retailer Using RFID***

Dane Hamilton (University of Wollongong, Australia)

***The Bullwhip effect in complex supply chains***

Albert Munoz (University of Wollongong, Australia)

***Logistics Service Recovery and the role of Technology***

Andrew Brinsmead (University of Wollongong, Australia)

***Business Rules in a Service Development and Execution Environment***

Aqueo Kamada (CenPRA - Information Technology Research Center, Brazil)

***Using Linguistics Information for Improving the Sentence-based Semantic Relatedness Measurement***

Rachada Kongkachandra (Thammasat University, Thailand); Kosin Chamnongthai (King Mongkut's University of Technology Thonburi, Thailand)

**F4F - WSN III**

**Chair:** Xue Wang (Tsinghua University, P.R. China)

***A Transaction-based Approach to Over-the-air Programming in Wireless Sensor Networks***

Yueh-Feng Lee (Industrial Technology Research Institute, Taiwan); Chung-Chou Shen (ITRI, Taiwan)

***A Hybrid Routing Protocol for Wireless Sensor Networks***

Wanzhi Qiu (National ICT Australia, Australia); Qi Cheng (University of Western Sydney, Australia); Efstratios Skafidas (National ICT Australia, Australia)

***An Efficient Self-healing Process for ZigBee Sensor Networks***

Wanzhi Qiu (National ICT Australia, Australia); Peng Hao (National ICT Australia, Australia); Robin Evans (University of Melbourne, Australia)

***Multi-Parameters Weighted Clustering Hierarchy Scheme for Wireless Ad Hoc Sensor Networks***

Yi Wang (Xi'an Jiaotong University, P.R. China)

***On the Accuracy of RFID Tag Estimation Functions***

Dheeraj Klair (University of Wollongong, Australia); Kwan-Wu Chin (University of Wollongong, Australia); Raad Raad (University of Wollongong, Australia)

***Lightweight Signal Processing in Sensor Node for Real-time Traffic Monitoring***

Yuhe Zhang (Institute of Computing Technology, Chinese Academy of Science, P.R. China); Xi Huang (Institute of Computing Technology, Chinese Academy of Sciences, P.R. China); Li Cui (Institute of Computing Technology, P.R. China)

***Deforestation Detection Algorithm for Wireless Sensor Network***

Sirichai Rujipattanapong (King Mongkut Institute of Technology North Bangkok, Thailand)

**4:00 PM - 5:45 PM**

**F5A - Coding and Detection II**

**Chair:** Upul Gunawardana (University of Western Sydney, Australia)

***Small Carrier Frequency Difference Detection Based on the Relative Phase Entropy***

Huang Yuanling (Southwest Electronics and Telecommunication Technology Research Institute, P.R. China); Lu Yourong (Southwest Electronics and Telecommunication Technology Research Institute, P.R. China)

***Iterative Approaches of Cooperative Transmission Based on Superposition Modulation***

Tuyen Bui (University of New South Wales, Australia); Jinhong Yuan (University of New South Wales, Australia)

***Exact SER of Alamouti Code Transmission through Amplify-Forward Cooperative Relay over Nakagami-m Fading Channels***

Nandana Rajatheva (Asian Institute of Technology, Thailand); Saman Atapattu (Telecommunication Field of study, Thailand)

***Blind Detection of Dual-Rate DS-CDMA Signals over Time-Variant Channels***

Yuji Kimura (Kitami Institute of Technology, Japan); Koji Shibata (Kitami Institute of Technology, Japan); Takakazu Sakai (Kitami Institute of Technology, Japan); Atsushi Nakagaki (Kitami Institute of Technology, Japan)

***A Protocol of Multi-Phase Cooperative Wireless Networks for the Lowest Outage Probability***

Chen Sun (ATR, Wave Engineering Laboratories, Japan); Jun Cheng (Doshisha University, Japan); Makoto Taromaru (ATR Wave Engineering Laboratories, Japan)

***State-Space Estimation for OFDM and SC-FDE Schemes with Strongly Varying Carrier Frequency Offset***

Pedro Pedrosa (ISR, Portugal); Rui Dinis (ISR-IST, Technical University of Lisbon, Portugal); Fernando Nunes (Instituto Superior Tecnico, Portugal)

**F5B - Security II**

**Chair:** Diethelm Ostry (CSIRO, Australia)

***A Study on Encryption Method in Group Communication Using RSA Accumulator***

Yasuo Hatano (Hitachi Ltd., Japan)

***Trust and Role Based Access Control for Secure Interoperation ("TracSI")***

Suronapee Phoomvuthisarn (Mahanakorn University of Technology, Thailand)

***Multimedia Performance of a Ubiquitous Processor***

Masaaki Fukase (Hirosaki University, Japan); Kazunori Noda (Hirosaki University, Japan); Hiroki Takeda (Hirosaki University, Japan); Tomoaki Sato (Hirosaki University, Japan)

***Proposal of an Authentication Method "SPAIC" using a Non-contact Type IC Card***

Changjun Shu (Meijo University, Japan); Hidekazu Suzuki (Meijo University, Japan); Akira Watanabe (Meijo University, Japan)

***The Use of DCT Coefficient Sign for Content-Based Copy Detection***

Fitri Arnia (Tokyo Metropolitan University, Japan); Masaaki Fujiyoshi (Tokyo Metropolitan University, Japan); Hitoshi Kiya (Tokyo Metropolitan University, Japan)

***Secret key reconciliation using BCH Code in Quantum Key Distribution***

Wuthigorn Traisilanun (King Mongkut's Institute of Technology Ladkrabang, Thailand); Ornlarpt Sangaroon (king mongkut Institute of technology ladkrabang, Thailand); Keattisak Sripimanwat (National Electronic and Computer Tech Center, Thailand)

**F5C - Cognitive Radio**

**Chair:** Srinivas Mandalika (IIIT Hyderabad, India)

***A Novel Frequency Coded Orthogonal Cognitive UWB Pulse and Modulation***

Fangmin Xu (Beijing university of Posts &Telecommunications, P.R. China); Wei Liu (Beijing University of Posts and Telecommunications, P.R. China); Luyong Zhang (Beijing University of Posts and Telecommunications, P.R. China); Zheng Zhou (Beijing University of Posts and Telecommunications, P.R. China)

***Adaptive Radio Scenario Evaluation and FMW Generation Methods for Cognitive UWB Radio Systems***

Weihua Zhang (Inha University, Korea); Hanbing Shen (Inha University, Korea); Kyungsup Kwak (Inha University, Korea)

***On the Distributed Cooperative Spectrum Sensing for Cognitive Radio***

Wenzhong Wang (Beijing University of Post and Telecommunication, P.R. China); Luyong Zhang (Beijing University of Posts and Telecommunications, P.R. China); Weixia Zou (Inner Box.96, Beijing University of Posts and Telecommunications, Beijing 100876, China, P.R. China); Zheng Zhou (Beijing University of Posts and Telecommunications, P.R. China)

***Dynamic Bandwidth MCIDS - A Cognitive Solution for MCIDS based UWB Communications***

Jie Zhao (University of Wollongong, Australia); Xiaojing Huang (University of Wollongong, Australia); Eryk Dutkiewicz (University of Wollongong, Australia)

***A Study of Dynamic Reconfigurable FFT Processor for OFDM Based Cognitive Radio***

Kazuto Nishi (Hokkaido University, Japan)

***Channel Capacity of a Cognitive Radio Network in GSM Uplink Band***

Jason Gao (Victoria University, Australia)

**F5E - Services and Applications II**

**Chair:** Kosin Chamnongthai (King Mongkut's University of Technology Thonburi, Thailand)

***A New Text Classification Method Based on HMM-SVM***

Jing Wang (University of xidian, P.R. China); Yong Yao (Xidian University, P.R. China); Zhijing Liu (Xidian University, P.R. China)

***Web Object Information Extraction Based on Generalized Hidden Markov Model***

Jing Wang (University of xidian, P.R. China); Yong Yao (Xidian University, P.R. China); Zhijing Liu (Xidian University, P.R. China)

***Internet Search by Active Feedback***

Ray-I Chang (National Taiwan University, Taiwan)

***A New Design of the Credits Scoring Information System***

Xu Dan-li (Shanghai University of Finance and Economics, P.R. China); Qin Zheng (Shanghai University of Finance and Economics, P.R. China)

***Improving Grid Monitoring With Data Quality Assessment***

Wei Liu (Graduate University of Chinese Academy of Sciences, P.R. China); Tiejian Luo (Graduate University of Chinese Academy of Sciences, P.R. China); Jinliang Song (Graduate University of Chinese Academy of Sciences, P.R. China); Su Chen (Gradute University of Chinese Academy of Sciences, P.R. China)

***Solving Multi-Objective Problems with Building Blocks Identification***

Jiradej Ponsawat (Chulalongkorn University, Thailand); Wandao Punyaporn (Chulalongkorn University, Thailand); Nachol Chaiyaratana (King Mongkut's Inst. of Tech. North Bangkok, Thailand); Prabhas Chongstitvatana (Chulalongkorn University, Thailand)

***Network-based Voice Component Framework for Human Robot Interaction***

Hye-Jin Kim (Electronics and Telecommunications Research Institute, Korea)

**F5F - Speech Processing**

**Chair:** Yoshikazu Miyanaga (Hokkaido University, Japan)

***Speech Enhancement of Non-stationary Noisy Speech Based on Controlled Forward Moving Average***

Dariusz Farrokhi (University of W.A, Australia); Roberto Togneri (University of Western Australia, Australia); Anthony Zaknich (University of Western Australia, Australia)

***Nonstationary Linear Prediction Analysis of Speech Codec Corrected by Pre-Stage Forward Volume Normalizer***

Chian C. Ho (National Yunlin University of Science and Technology, Taiwan)

***A scalable low bitrate audio and speech coder***

Zhang Yong (Wuhan University, P.R. China)

***A Unified Framework for ACELP Codebook Search Based on Low-complexity Multi-rate Lattice Vector Quantization***

Cheng Zhou (Wuhan University, P.R. China)

***Tree-structured model selection and simulated-data adaptation for robust speech recognition***

Nattanun Thatphithakkul (King Mongkut's Institute of Technology Ladkrabang, Thailand); Vataya Boonpiam (National Electronics and Computer Technology Center, Thailand); Boontee Kruatrachue (King Mongkut's Institute of Technology Ladkrabang, Thailand); Chai Wutiwiwatchai (National Electronics and Computer Technology Center, Thailand); Sanparith Marukatat (National Electronics and Computer Technology Center, Thailand)

***Noisy Word Recognition Using a Feature Based on Ternarized Spectral Slope***

Megumi Umeno (Kanazawa University, Japan); Tetsuo Funada (Kanazawa University, Japan); Hideyuki Nomura (Kanazawa University, Japan)

***Signal Subspace Approach for Speech Enhancement in Nonstationary Noises***

Sheau-Fang Lei (National Cheng Kung University, Taiwan)