Monday, 20 December 2004

8:30 a.m. – 9:30 a.m.  Registration
9:30 a.m. – 10:30 a.m.  Official Opening – Assoc. Prof. T. Wysocki
                        Keynote Address – Prof. M. Miller
10:30 a.m. – 11:00 a.m.  Coffee Break
11:00 a.m. – 12:30 p.m.  Signal Processing 1
12:30 p.m. – 1:30 p.m.  Lunch
1:30 p.m. – 3:00 p.m.  Communication Systems 1
3:00 p.m. – 3:30 p.m.  Coffee Break
3:30 p.m. – 5:00 p.m.  Networking 1
6:30 p.m. – 8:30 p.m.  Cocktail Reception

Tuesday, 21 December 2004

9:00 a.m. – 10:30 a.m.  Networking 2
10:30 a.m. – 11:00 a.m.  Coffee Break
11:00 a.m. – 12:30 p.m.  Communication Systems 2
12:30 p.m. – 1:30 p.m.  Lunch
1:30 p.m. – 2:30 p.m.  Poster Session 1 (Networking)
2:30 p.m. – 3:00 p.m.  Coffee Break
3:00 p.m. – 4:00 p.m.  Poster Session 2 (Signal Processing and Communication Systems)
7:00 p.m. – 11:30 p.m.  Banquet
Wednesday, 22 December 2004

9:00 a.m. – 10:30 a.m.  Signal Processing 2
10:30 a.m. – 11.00 a.m.  Coffee Break
11:00 a.m. – 12:30 p.m. Communication Systems 3
12:30 p.m. – 1:30 p.m.  Lunch
1:30 p.m. – 3:00 p.m.  Networking 3
3:00 p.m. – 3:30 p.m.  Coffee Break / End of the Workshop

Sessions

Signal Processing 1


R. Hammi, N. Chihab, A. Zergainoh, K. Chen, and J.-P. Astruc: *Improvement of the video quality based on dynamic rate control and frames reconstruction postprocessing*, Université Paris 13, France

S. Lowther, C. McCool, V. Chandran, and S. Sridharan: *Improving Face Localisation using Claimed Identity for Face Verification*, Queensland University of Technology, Australia

A. Nguyen, V. Chandran, and S. Sridharan: *GAZEJ2K: A Gaze-Influenced JPEG 2000 Image Coder*, Queensland University of Technology, Australia

J. Cook, J. Baker, V. Chandran and S. Sridharan: *3D Face Acquisition, Modelling and Recognition*, Queensland University of Technology, Australia

Signal Processing 2

J. Tsui, and S. Reisenfeld: *A Highly Accurate DFT-based Complex Exponential Phase Estimator*, University of Technology, Sydney, Australia

S. Sirianunpiboon, J. Tsimbinos: *Optimum Decision Feedback Equalisation of Nonlinear Channels By Symbol Substitution and MAP Estimators*, Defence Science and Technology Organisation, Australia
I. Russell, J. Xi, and A. Mertins: *Global Optimization of Uninitialized Convolutive Blind Signal Separation Problems in the Time Domain*, University of Wollongong, Australia, University of Oldenburg, Germany

K. Raju, and B. P. Sudheer: *Blind Source Separation for Interference Cancellation - A Comparison of several spatial and temporal statistics based techniques*, Helsinki Univ. of Technology, Finland

J. Jusak and Z. M. Hussain: *Evaluation of A Sinusoidally-Distributed Dithering for Signed-Error Constant Modulus Algorithm: Performance Comparison with Uniformly-Distributed Dithering*, RMIT University, Australia

Qi Cheng: *Constrained CRB for Blind Identification of MIMO FIR Systems*, University of Western Sydney, Australia

**Networking 1**


L. B. White, and B. A. Chiera: *LQG Congestion Control for TCP*, The University of Adelaide, Australia


M.-M. Tromparent: *Setup Delay Optimization for IP Telephony Calls within the Resource Management Architecture*, Munich University of Technology (TUM), Germany


J. Tovirac, and W. Zhang: *Enhancement Schemes to P Mul Multicasting Protocol*, University of South Australia, Defence Science and Technology Organisation, Australia

**Networking 2**


Z. Liu, M. Kwiatkowska, and C. Constantinou: *A Biologically Inspired Optimisation to AODV Routing Protocol*, The University of Birmingham, UK

C. Y. Ng, Y. Mu, and W. Susilo: *A Secure Identity-based Mobile Ad-Hoc Protocol*, University of Wollongong, Australia

G. Srivastava, P. Boustead: *Achieving a Minimum Node Degree in Ad-hoc Networks*, University of Wollongong, Australia
S. Ding, A. Dadej, and S. Gordon: *Internet Integrated MANETs using Mobile IP*, University of South Australia, Australia

M. Abolhasan, J. Lipman, and T. Wysocki: *Load-Balanced Route Discovery for Mobile Ad hoc Networks*, University of Wollongong, Australia

**Networking 3**

M. Blanc, L. Oudot, P. Clemente, P. Courtieu, C. Toinard, S. Franche, and L. Vessiller: *Hardening large-scale networks security through a meta-policy framework*, CEA, LIFO, ENSI-Bourges, France

T. T.T. Nguyen, and G. J. Armitage: *Quantitative Assessment of IP Service Quality in 802.11b Networks*, Swinburne University of Technology, Australia

A. Kotwal, and Z. Chaczko: *Secure Network Application Proxy*, University of Technology, Sydney, Australia

Z. Chaczko, T. Gulrez, R. Alhmouz, and R. Braun: *Modelling a Holonic Network System using Cellular Automata for Detecting Traffic Congestion*, University of Technology, Sydney, Australia

B. Landfeldt, and N. Kolodziej: *A Dynamic Location Management Scheme based on individual metrics and coordinates*, University of Sydney, Australia

P. Pourbeik, D. Perisa, and A. Allwright: *OSPF as a Service Recovery Mechanism in Military Networks: a Comparative Study of Test-bed and Simulated Results*, Defence Science and Technology Organisation, Australia

**Communication Systems 1**


C. Teekapakvisit, V.D. Pham, and B. Vucetic: *An Adaptive Iterative Receiver for Space-Time Coding MIMO Systems*, The University of Sydney, Australia

F. Choy, J. Homer: *Performance Analysis of Multiple Input Multiple Output OFDM based Mobile Computer Systems*, Queensland University of Technology, and The University of Queensland, Australia

P. Conder, and T. A. Wysocki: *Extending Asterism decoding to QAM and its complexity in Rician fading MIMO systems*, University of Wollongong, Australia

T. Wada, K. Ohuchi, H. Okada, A. Jamalipour, M. Saito: *A Study on Effect of Turbo Codes with Unequal Power Allocation on Multi-hop Networks*, Shizuoka University, Nagoya University, Japan, The University of Sydney, Australia, and Nara Institute of Science and Technology, Japan
M. Qiu, Q. Shao: *Multi-tent map for UWB Impulse Radio Based on Pseudo-Chaotic Time Hopping*, Fudan University, PRC

**Communication Systems 2**

A.V. Kelarev: *Minimum distances and information rates for matrix extensions of BCH codes*, University of Tasmania, Australia

B. Flores-Centurion, P. B. Rapajic, and S. J. Johnson: *LDPC Performance over Channels with ISI*, The University of New South Wales, and The University of Newcastle, Australia

F. Vanhaverbeke, and M. Moeneclaey: *An Extension of Total Squared Asynchronous Correlation to the Chip-unaligned Case*, Ghent University, Belgium

D. Carey, B. Senadji, and D. Roviras: *Statistical Modeling of Multiple Access Interference Power: A Nakagami-M Random Variable*, Queensland University of Technology, Australia, and INPT/ENSEEIHT-IRIT, France

W.Y. Leong, and J. Homer: *Implementing Blind Multiuser Detector in CDMA Wireless System*, The University of Queensland, Australia

P. H. Tan, and L. K. Rasmussen: *Multiuser Detection Based on Gaussian Approximation*, Chalmers University of Technology, Sweden, and The University of South Australia, Australia

**Communication Systems 3**

A. Smokvarski, and B. Popovski: *Combination of a Transmitter and Receiver Diversity Scheme with Channel Estimation*, COSMOFON, MTS-Mobile Telecommunications Services, and The University St.Kiril & Metodija, Republic of Macedonia

Y.-S. Lau, and Z. M. Hussain: *Chaotic-based OFDM-CDMA for Secure Digital Communications: Performance Comparison with PN-based OFDM-CDMA*, RMIT University, Australia

K. H. Lin, and Z. M. Hussain: *Adaptive Bit and Power Allocation with Sub-Channel Grouping for OFDM Systems*, RMIT University, Australia

H. M. Jones, S. Xu, and K. Blackmore: *Link Ratio for Ad Hoc Networks in a Rayleigh Fading Channel*, Australian National University, Australia

M. Williamson, and M. Faulkner: *Improved Adaptation Scheme for an Adaptive Wideband Duplexer*, Victoria University, Australia

M. Hadeff, and S. Weiss: *A Semi-Blind Channel Equalisation Strategy for the UMTS-TDD Downlink*, University of Southampton, UK
Poster Session 1 (Networking)

S. T. Obenofunde, B. M. Ali, S. Khatun, and M. B. Ismail: Effects of User Authentication in Mobile IPV6, Universiti Putra, Malaysia, and Universiti Kembansaan, Malaysia

H. Zhou, J. Leis, D. Hoang, and P. Nhan: Throughput and Fairness of Multiple TCP Connections in Wireless Networks, University of Southern Queensland, and University of Technology, Sydney, Australia

N. Sharma, D. Chadha, and V. Chandra: Generalized Algorithm for Finding all Connections in an Optical WDM Network, Indian Institute of Technology, India

C.-C. Ooi, and N. Fisal: Implementation and Real World Testing of Geocast-enhanced AODV-bis Routing Protocol, Universiti Teknologi Malaysia, Malaysia


G. P. Navarrete, S. I. Sandvik, J. I. Agbinya: Architectures of Moving Wireless Networks, University of Technology Sydney, Australia

K. Sandrasegaran, K. Pillay, and P. Tsang: Forecasting the growth of GSM networks in Australia using Regression Analysis, University of Technology Sydney, Australia


G. Armitage, P. Branch, and L. Stewart: Mathematical and Experimental Analysis of Limitations in Creating Artificial Jitter for Networked Usability Trials, Swinburne University of Technology, Australia

J. Foo, N. Mani, and A. Sekercioglu: Restoration Methods for Bandwidth Guaranteed Paths in MPLS Network, Monash University, Australia

A. Belhoul, A. Sekercioglu, and N. Mani: Survey of QoS Provisioning Mechanisms in Wireless All-IP Networks, Monash University, Australia

J. Huang, W. Susilo, and J. Seberry: Observations on the Message Integrity Code in IEEE802.11 Wireless LANs, University of Wollongong, Australia

B.-L. Su, R. Y.-M. Huang, and F. Lee: A Spanning Tree Path Finding Approach for Ad Hoc Networks, National Cheng Kung University, Taiwan, and National Center for High-Performance Computing, Taiwan

J. C. McEachen, J. M. Zachary, J. Wang, and K. W. Cheng: Conversation Exchange Dynamics: A New Signal Primitive for Computer Network Intrusion Detection, Naval Postgraduate School, USA, and University of South Carolina, USA

Y. K. Rana, S. Jha, and L. Libman: FEC for TCP Congestion Control over Lossy Links, University of New South Wales, Australia, and National ICT Australia
Poster Session 2 (Signal Processing and Communication Systems)

I. S. Raad, P. Vial and T. Wysocki: A study of UMTS Turbo Codes across Space Time Spreading Channel with the Case of $m = 1$ and $m = 2$, University of Wollongong, Australia

M. Aljada: Simulation Study of Emerging High Performance Fiber Distributed Data Network, Curtin University of Technology, Malaysia

K.D.R. Jagath-Kumara: Evaluation of BCH Codes for Hybrid-ARQ Using Theoretical Analysis and Computer Simulations, Massey University, New Zealand

A. C. Thompson, and Z. M. Hussain: A Single-bit Resonator, RMIT University, Australia

A. C. Thompson, and Z. M. Hussain: Performance of a Single-Bit Digital Non-Coherent Baseband BFSK Demodulator, RMIT University, Australia

J. I. Agbinya: Hand Pose Biometrics Models, University of Technology, Sydney, Australia

Q. Cheng, H. Zhang: Fast Algorithms for Carrier Frequency Offset Estimation in OFDM Wireless LAN Systems, University of Western Sydney, Australia, and Zhengzhou Railway Industrial College, China

W.Y. Leong, J.Homer: Investigating Nonlinearities in Blind Source Separation, The University of Queensland, Australia

C.Fookes, F.Lin, V.Chandran, and S.Sridharan: Super-Resolved Face Images Using Robust Optical Flow, Queensland University of Technology, Australia

A. Gopalakrishnan, S. S.Mahmoud, and Z. M. Hussain: An Elliptical Power-Limit Hyperbolic Channel Model for Macrocell Mobile Environment, RMIT University, Australia

F. A. Sohel, L. S Dooley, and G. C Karmakar: A Modified Distortion Measurement Algorithm for Shape Coding, Monash University, Australia

W.Y. Leong, and J.Homer: Introducing Blind MIMO Identification Systems, The University of Queensland, Australia

S. Denman, D. Butler, V. Chandran, and S. Sridharan: Infra-Red Pupil Detection for use in a Face Recognition System, Queensland University of Technology, Australia

A. C. Thompson, and Z. M. Hussain: All Digital Adaptive Sigma-Delta Modulator, RMIT University, Australia