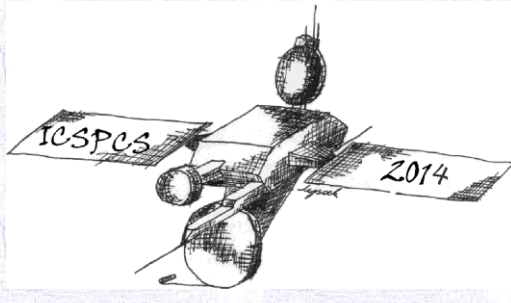




# 8th International Conference on Signal Processing and Communication Systems

*15 - 17 December 2014, Gold Coast, Australia*

## CONFERENCE PROGRAM



University of Nebraska's  
**The PETER KIEWIT  
INSTITUTE**



**IEEE**



**IEEE  
COMMUNICATIONS  
SOCIETY**

Monday

Tuesday

Wednesday



# Monday, December 15<sup>th</sup>, 2014

8:00 – 9:00	Registration
9:00 – 9:15	Conference Opening
9:15 – 10:40	<u>Session 1: Wireless Communications – 1</u>
10:40 – 11:00	<i>Coffee Break</i>
11:00 – 12:40	<u>Session 2: Signal Processing for Multimedia</u>
12:40 – 13:30	<i>Lunch</i>
13:30 – 15:10	<u>Session 3: Signal Processing for Communications – 1</u>
15:10 – 15:30	<i>Coffee Break</i>
15:30 – 17:10	<u>Session 4: Networks</u>
18:00 – 19:00	<i>Cocktail Reception</i>

Monday

Tuesday

Wednesday



# Tuesday, December 16<sup>th</sup>, 2014

8:30 – 9:15  
9:15 – 10:40  
10:40 – 11:00  
11:00 – 12:40  
12:40 – 13:30  
13:30 – 14:30  
14:45 – 15:45  
15:00 – 15:30  
16:00 – 17:00  
19:00 – 22:00

Keynote Address

Session 5: Signal Processing - Case Studies

*Coffee Break*

Session 6: Signal Processing Theory

*Lunch*

Poster Session 1

Poster Session 2

*Coffee/Tea*

Poster Session 3

*Banquet Dinner*

Monday

Tuesday

Wednesday



# Wednesday, December 17<sup>th</sup>, 2014

9:00 – 10:40	<u>Session 7: Signal Processing for Communications – 2</u>
10:40 – 11:00	Coffee break
11:00 – 12:40	<u>Session 8: Wireless Communications – 2</u>
12:40 – 13:30	Lunch
13:30 – 15:10	<u>Session 9: Signal Processing for Communications – 3</u>
15:10 – 15:30	Coffee break
15:30 – 17:10	<u>Session 10: Wireless Communications – 3</u>
17:10	End

Monday

Tuesday

Wednesday



# Session 1: Wireless Communications – 1

Monday - 9:16 AM - 10:40 AM

- ***An Efficient Channel Selection and Power Allocation Scheme in Smart Metering Infrastructure*** Chuyen Khoa Huynh (Soongsil University, Korea) and Won Cheol Lee (Soongsil University, Korea)
- ***A Virtual Channel Detector for Iterative Receiver in Overloaded MIMO OFDM Systems*** Satoshi Denno (Okayama University, Japan), Akihito Taya (Kyoto University, Japan) and Masahiro Morikura (Kyoto University, Japan)
- ***Downlink LTE Synchronization: A Software Defined Radio Approach*** Adrian Donarski (Defence Science and Technology Organisation, Australia), Tharaka Anuradha Lamahewa (DSTO, Australia) and Julian Sorensen (Defence Science Technology Organisation, Australia)
- ***Wireless Information and Power Transfer in an Underlay Cognitive Radio Network*** Louis Sibomana (Blekinge Institute of Technology, Sweden), Hans-Juergen Zepernick (Blekinge Institute of Technology, Sweden) and Hung Tran (National Institute of Education Management, Vietnam)
- ***Cooperative Blind Localization of Primary User in a Cognitive Radio Environment*** Kagiso Magowe (RMIT University, Australia), Sithampanathan Kandeepan (RMIT University, Australia)

Monday

Tuesday


Wednesday



# Session 2: Signal Processing for Multimedia

Monday - 11:00 AM - 12:40 PM

- ***Adaptive and Robust Feature Selection for Low Bitrate Mobile Augmented Reality Applications*** Yi Cao (University of Wollongong, Australia), Christian H Ritz (University of Wollongong, Australia) and Raad Raad (University of Wollongong, Australia)
- ***Quality of Experience-Based Image Feature Selection for Mobile Augmented Reality Applications*** Yi Cao (University of Wollongong, Australia), Christian H Ritz (University of Wollongong, Australia) and Raad Raad (University of Wollongong, Australia)
- ***Comparison of Transmission Quality Dimensions of Narrowband, Wideband, and Super-Wideband Speech Channels*** Sebastian Möller (Quality and Usability Lab, Telekom Innovation Labs, TU Berlin, Germany), Friedemann Köster (Quality and Usability Lab, Telekom Innovation Labs, TU Berlin, Germany), Laura Fernández Gallardo (University of Canberra and Telekom Innovation Laboratories, TU Berlin & Telekom Innovation Laboratories, Australia) and Michael Wagner (University of Canberra, Australia)
- ***Optimized Multi-Channel Deep Neural Network with 2D Graphical Representation of Acoustic Speech Features for Emotion Recognition*** Melissa Stolar (RMIT University, Australia), Margaret Lech (RMIT University, Australia) and Ian Burnett (RMIT University, Australia)
- ***Using the Influence Model Coefficients and the Random Walk to Predict Emotional Interactions in Parent-Child Conversations*** Melissa Stolar (RMIT University, Australia), Margaret Lech (RMIT University, Australia) and Ian Burnett (RMIT University, Australia)
- ***Segmentation and grading of eczema skin lesions*** Yau Kwang Ch'ng (UTAR, Malaysia), Humaira Nisar (University Tunku Abdul Rahman, Malaysia), Vooi Voon Yap (University Tunku Abdul Rahman, Malaysia), Kim Ho Yeap, CEng (UTAR, Malaysia) and Jyh Jong Tang (Ipoh General Hospital, Malaysia)



Monday

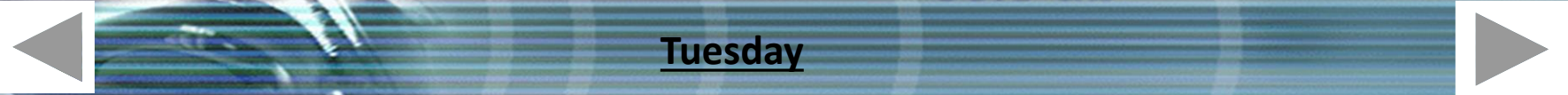
Tuesday

Wednesday

# Session 3: Signal Processing for Communications - 1

Monday - 1:30 PM - 3:10 PM

- **Modified Viterbi Algorithm for Efficient Optimal Decoding of Pragmatic-Punctured Trellis-Coded Modulation** Fabian Schuh (Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany), Andreas Schenk (Qualcomm CDMA Technologies GmbH, Germany) and Johannes Huber (University of Erlangen-Nuremberg, Germany)
- **Performance of Cognitive Radio Networks with Finite Buffer Using Multiple Vacations and Exhaustive Service** Hoc Phan (University of Reading, United Kingdom), Thi My Chinh Chu (Blekinge Institute of Technology, Sweden), Hans-Juergen Zepernick (Blekinge Institute of Technology, Sweden) and Hien Quoc Ngo (Linköping University, Sweden)
- **A k-Generation Approach to Wireless Fingerprinting for Position Estimation** John Roth (United States Naval Academy, USA), Murali Tummala (Naval Postgraduate School, USA), John C. McEachen (Naval Postgraduate School, USA) and James Scrofani (Naval Postgraduate School, USA)
- **Applications of SDR Exact-ML Criterion to Tree-Searching Detection for MIMO Systems** Minjoon Kim (Yonsei University, Korea) and Jaeseok Kim (Yonsei University, Korea)
- **Kalman-based attitude estimation for an UAV via an antenna array** Thiago Felipe Kurudez Cordeiro (University of Brasília, Brazil), Joao Paulo Carvalho Lustosa da Costa (University of Brasília, Brazil), Kefei Liu (Arizona State University, USA) and Geovany A. Borges (University of Brasília, Brazil)



Monday

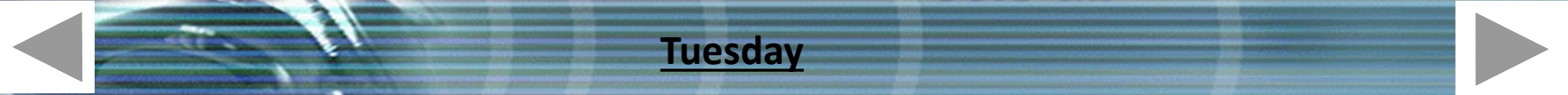
Tuesday

Wednesday

# Session 4: Networks

Monday - 3:30 PM - 5:10 PM

- ***Efficient Topology Discovery in Software Defined Networks*** Farzaneh Pakzad (The University of Queensland, Australia), Marius Portmann (University of Queensland, Australia), Wee Lum Tan (The University of Queensland, Australia) and Jadwiga Indulska (The University of Queensland, Australia)
- ***Dynamic State Determination of a Software-Defined Network via Dual Basis Representation*** Thomas Parker (Naval Postgraduate School, USA), Jamie Johnson (Naval Postgraduate School, USA), Murali Tummala (Naval Postgraduate School, USA), John C. McEachen (Naval Postgraduate School, USA) and James Scrofani (Naval Postgraduate School, USA)
- ***Random Access Issues for Smart Grid Communication in LTE Networks*** Chalakorn Karupongsiri (The University of Sydney, Australia), Kumudu S Munasinghe (University of Canberra, Australia) and Abbas Jamalipour (University of Sydney, Australia)
- ***A Study on Dynamic Spectrum Assignment for Fairness in Elastic Optical Path Networks*** Naoya Hara (Kyoto University, Japan) and Tatsuro Takahashi (Kyoto University, Japan)
- ***Permission Based Implementation of Dynamic Separation of Duty (DSD) in Role Based Access Control (RBAC)*** Muhammad Asif Habib (National Textile University, Pakistan), Nasir Mahmood (NTU, Pakistan), Muhammad Shahid (National Textile University, Pakistan), Umar Aftab (NTU, Pakistan) and Muhammad Nadeem Faisal (National Textile University, Pakistan)



Monday

Tuesday

Wednesday



# Keynote Address

## Modeling Molecular Communications at NANO-SCALE with Applications in Medicine and Microbiology

*Prof. Tadeusz A Wysocki, PhD, DSc, University of Nebraska-Lincoln, USA*

Many biological processes that happen at the cellular level can be considered as information transfer, which is the area of telecommunications research. *Examples:* Gene delivery, targeted drug delivery, viral infections, cell metabolic processes, etc. Developing an accurate but simple simulation model can significantly speedup analysis of those processes and reduce expenses associated with laboratory experiments. It can also help in identifying bottlenecks in signaling pathways and facilitate studying cell responses to changes in underlying conditions (*e.g.* initial concentrations of proteins, changing reaction speeds, *etc.*). We propose to use a telecommunications modeling approach based on queuing theory and stochastic modeling to build simulation models tailored to particular biological/medical application. In the presentation, the fundamental aspects of the modelling as well as some of the developed models will be presented and results of simulations compared with the available experimental data.

Monday

Tuesday

Wednesday



# Keynote Address

Tadeusz Antoni Wysocki (IEEE M'94 – SM'98), received the M.Sc.Eng. degree with the highest distinction in telecommunications from the Academy of Technology and Agriculture, Bydgoszcz, Poland, in 1981. In 1984, he received his Ph.D. degree, and in 1990, was awarded a D.Sc. degree (habilitation) in telecommunications from the Warsaw University of Technology.

In 1992, he moved to Perth, Western Australia to work at Edith Cowan University. He spent the whole 1993 at the University of Hagen, Germany, within the framework of Alexander von Humboldt Research Fellowship. In December 1998, he moved to the University of Wollongong, NSW, as an Associate Professor, within the School of Electrical, Computer and Telecommunications Engineering. Since the fall of 2007, he has been with the University of Nebraska – Lincoln as a Professor of Computer and Electronics Engineering at the Peter Kiewit Institute in Omaha, NE. The main areas of his research interests include: space-time signal processing, diversity combining, indoor propagation of microwaves, and molecular communications at nano-scale. He is an author or co-author of over 250 research papers.



Monday

Tuesday

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# Session 5: Signal Processing - Case Studies

Tuesday - 9:15 AM - 10:40 AM

- ***Classification of Fetal Movement Accelerometry Through Time-Frequency Features*** Siamak Layeghy (The University of Queensland, Australia), Ghasem Azemi (UQ, Brisbane, Australia), Paul B Colditz (University of Queensland, Australia) and Boualem Boashash (Qatar University, Doha & University of Queensland, Brisbane, Australia)
- ***Enhanced Forensic Multiple Speaker Recognition in the Presence of Coloured Noise*** Florian Denk (University of Oldenburg, Germany), João Paulo Carvalho Lustosa da Costa (Universidade de Brasília (UnB), Brazil) and Matheus Almeida Silveira (Universidade de Brasília (UnB), Brazil)
- ***An Online Learning Approach to QoE-Fair Distributed Rate Allocation in Multi-User Video Streaming*** Mahdi Hemmati (University of Ottawa, Canada), Yassine Abdulsalam (University of Ottawa, Canada) and Shervin Shirmohammadi (University of Ottawa, Canada)
- ***2x2 Panoramic Camera Array Stitching using Edge Matching*** Xiaodong Huang (Magor Communications Corp, Canada), Shervin Shirmohammadi (University of Ottawa, Canada) and Yassine Abdulsalam (University of Ottawa, Canada)

Monday

Tuesday


Wednesday



# Session 6: Signal Processing Theory

Tuesday - 11:00 AM - 12:40 PM

- ***The Application of Frequency-Weighting to Improve Filtering and Smoothing Performance*** Garry A. Einicke (CSIRO, Australia)
- ***On the Placement of Latitudes in Iso-Latitude Optimal-Dimensionality Sampling Schemes on the Sphere*** Zubair Khalid (The Australian National University, Australia) and Rodney Andrew Kennedy (The Australian National University, Australia)
- ***Iterative Method to Compute the Maximal Concentration Slepian Band-limited Eigenfunction on the Sphere*** Zubair Khalid (The Australian National University, Australia) and Rodney Andrew Kennedy (The Australian National University, Australia)
- ***Capacity of Band Limited Wavefields Observed Over Finite Spatial and Temporal Windows*** Farhana Bashar (Australian National University, Australia), Thushara D. Abhayapala (Australian National University, Australia) and S. M. Akramus Salehin (Australian National University, Australia)



Monday

Tuesday

Wednesday

# Poster Session 1 – page 1

Tuesday - 1:30 PM - 2:30 PM

- **Online Handwritten Devanagari Stroke Recognition Using Extended Directional Features** Lajish Lajish V L (University of Calicut, India) and Sunil Kumar Kopparapu (Tata Consultancy Services, India)
- **Video Transmission and Presentation Methods for Multi-View Video and Audio IP Transmission** Toshiro Nunome (Nagoya Institute of Technology, Japan) and Takuya Ishida (Nagoya Institute of Technology, Japan)
- **Reusing Automatic Speech Recognition Platform for Resource Deficient Languages** Chirag Patel (TCS, India) and Sunil Kumar Kopparapu (Tata Consultancy Services, India)
- **A Novel Feature Extraction Technique to Retrieve Vegetation Class for Fire Risk Assessment** Sujan Chowdhury (Central Queensland University, Australia) and Brijesh Verma (Central Queensland University, Australia)
- **Fuzzy analysis of side channel information** Ehsan Saeedi (Macquarie University, Australia) and Yinan Kong (Macquarie University, Australia)
- **Side Channel Information Analysis Based on Machine Learning** Ehsan Saeedi (Macquarie University, Australia) and Yinan Kong (Macquarie University, Australia)

Monday

Tuesday

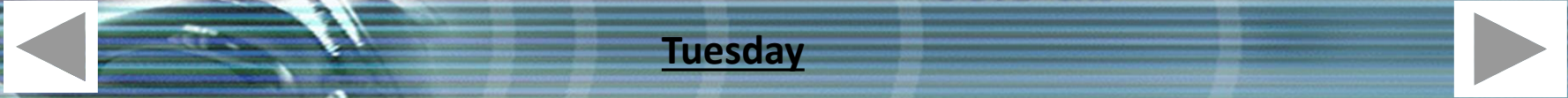
Wednesday



# Poster Session 1 – page 2

Tuesday - 1:30 PM - 2:30 PM

- **Comparative Analysis of Steganographic Algorithms Within Compressed Video Domain** Tarik Idbeaa (Universiti Kebangsaan Malaysia, Malaysia)
- **Compressed Sensing based Speech Enhancement** Fereshteh Fakhar Firouzeh (Sharif University of Technology-International Campus, Iran), Seyed Ghorshi (Sharif University of Technology, Iran) and Sina Salsabili (Sharif University of Technology-International Campus, Iran)
- **Depth-Guided Patch-Based Disocclusion Filling for View Synthesis via Markov Random Field Modelling** Tijana Ružic (Ghent University, Belgium), Ljubomir Jovanov (TELIN-IPI-iMinds, Belgium), Hiep Q Luong (Ghent University, Belgium), Aleksandra Pižurica (Ghent University, Belgium) and Wilfried Philips (Ghent University, Belgium)
- **Detection of Neonatal EEG Burst-Suppression Using A Time-Frequency Approach** Md Awal (The University of Queensland, UQ Centre for Clinical Research, Australia), Ghasem Azemi (The University of Queensland, UQ Centre for Clinical Research, Australia), Paul B Colditz (The University of Queensland, UQ Centre for Clinical Research, Australia) and Boualem Boashash (Qatar University, Doha & University of Queensland, Brisbane, Australia)



Monday


Tuesday

Wednesday

# Poster Session 1 – page 3

Tuesday - 1:30 PM - 2:30 PM

- ***A DASH-Based 3D Multi-view Video Rate Control System*** Tianyu Su (University of Ottawa, Canada), Abbas Javadtalab (University of Ottawa, Canada), Yassine Abdulsalam (University of Ottawa, Canada) and Shervin Shirmohammadi (University of Ottawa, Canada)
- ***Distributed Authorization in Complex Multi-Entity driven API Ecosystems*** Dirk Thatmann (Technical University of Berlin & Technical University of Berlin, Germany)



Monday

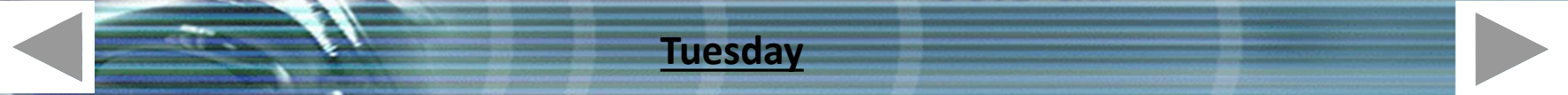
Tuesday

Wednesday

# Poster Session 2 – page 1

Tuesday - 2:45 PM - 3:45 PM

- ***Sparse Recovery-Based DOA Estimator with Signal-Dependent Dictionary*** Hui Chen (University of Electronic Science and Technology of China, P.R. China) and Huai-zong Shao (University of Electronic Science and Technology of China, P.R. China)
- ***Distributed Resource Allocation for Multi-User Multi-Relay AF Cooperative Communication*** Hanan Al-Tous (United Arab Emirates University, UAE) and Imad Barhumi (United Arab Emirates University, UAE)
- ***Hardware Implementation Issues of Carrier Synchronization for Pilot-Symbol Assisted Bursts: A Case Study for DVB-RCS2*** Imran Ali (University of Kaiserslautern, Germany), Uwe Wasenmueller (University of Kaiserslautern, Germany) and Norbert Wehn (University of Kaiserslautern, Germany)
- ***A Channel Matching Design of LDPC based Secrecy coding for the Fast Fading Channel*** Zhong Zhou (Zhengzhou Institute of Information Science and Technology, P.R. China), Jin Liang (Zhengzhou Institute of Information Science and Technology, P.R. China), Huang Kaizhi (Zhengzhou Institute of Information Science and Technology, P.R. China) and Yi Ming (Zhengzhou Institute of Information Science and Technology, P.R. China)



Monday

Tuesday

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## Poster Session 2 – page 2

Tuesday - 2:45 PM - 3:45 PM

- ***On the Location of Plug-In Relay Devices for Indoor Power Line Communication Environment*** Xiaolin Wu (Curtin University of Technology, Australia) and Yue Rong (Curtin University of Technology, Australia)
- ***Performance Analysis of Beam-space MUSIC with Beamforming Angle*** Dong-Jin Yeom (Agency for Defense Development, Korea), Sang-Hyun Park (Agency for Defense Development, Korea), Jeong-Ryul Kim (Agency for Defense Development, Korea) and Min-Joon Lee (Agency for Defense Development, Korea)
- ***Cross-Layer Performance Evaluation of Random AIFSN Scheme in Densely Deployed WLANs*** Ryuichi Hirata (Kyoto University, Japan), Takayuki Nishio (Kyoto University, Japan), Masahiro Morikura (Kyoto University, Japan), Koji Yamamoto (Kyoto University, Japan) and Tomoyuki Sugihara (Allied Telesis Holdings, Japan)
- ***Traffic Separation Using Dual Wi-Fi Interface to Enhance WLAN System Throughput*** Takayuki Nishio (Kyoto University, Japan), Ryo Nishioka (Kyoto University, Japan), Masahiro Morikura (Kyoto University, Japan) and Koji Yamamoto (Kyoto University, Japan)
- ***Joint Sub-Carrier Pairing, Relay Selection and Load Balancing in Two-Way Relay Networks*** Muhammad Abrar (Massey University, New Zealand), Xiang Gui (Massey University, New Zealand) and Amal Punchihewa (Asia-Pacific Broadcasting Union & Massey University, Honorary Research Fellow, Malaysia)

Monday

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## Poster Session 2 – page 3

Tuesday - 2:45 PM - 3:45 PM

- **Considerations on Downlink Non-Orthogonal Multiple Access (NOMA) Combined with Closed-loop SU-MIMO** Yang Lan (DOCOMO Beijing Communications Laboratories Co., Ltd, P.R. China), Anass Benjebbour (NTT DOCOMO, INC., Japan), Anxin Li (DOCOMO Beijing Communications Laboratories Co., Ltd, P.R. China), Xiaohang Chen (DOCOMO Beijing Communications Laboratories Co., Ltd, P.R. China) and Huiling Jiang (DOCOMO Beijing Communications Laboratories Co., Ltd., P.R. China)
- **Mathematical Analysis on Effectiveness of SS Code Having Negative Autocorrelation** Yoshimasa Narumiya (Tokyo University of Science, Japan) and Mikio Hasegawa (Tokyo University of Science, Japan)
- **Radio Environment Simulation Using RF Switch Matrix for MANET tests** Michal Kryk (Military University of Technology, Poland) and Jerzy Lopatka (Military University of Technology, Poland)
- **Convergence in Synchronous Measurements** John Leis (University of Southern Queensland, Australia) and David Buttsworth (University of Southern Queensland, Australia)



Monday

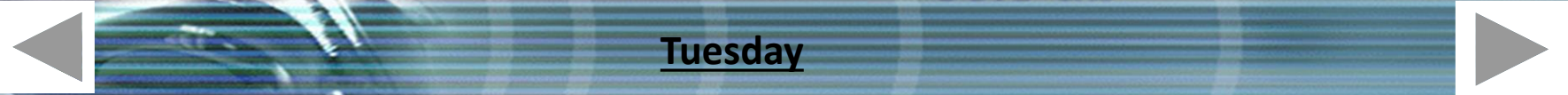
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Wednesday

# Poster Session 3 – page 1

Tuesday - 4:00 PM – 5:00 PM

- ***Multi-Objective Evolutionary Algorithm Based Optimization of Neural Network Ensemble Classifier*** Chien-Yuan Chiu (CQU University, Australia) and Brijesh Verma (Central Queensland University, Australia)
- ***Joint ML & MMSE-SIC Detection for Multi Cell Network Environment*** Won Seok Choi (Korea Polytechnic University, Korea), Hong Soon Chang (Korea Polytechnic University, Korea), Pyung Soo Kim (Korea Polytechnic University, Korea) and Jeong Gon Kim (Korea Polytechnic University, Korea)
- ***Effect of Transmission Opportunity and Frame Aggregation on VoIP Capacity over IEEE 802.11n WLANs*** Zawar Shah (Whitireia Community Polytechnic, Auckland, New Zealand), Ather Suleman (National University of Sciences and Technology, Pakistan), Imdad Ullah (School of Electrical Engineering and Computer Science (SECS), NUST, Pakistan) and Adeel Baig (National University of Sciences and Technology, Pakistan)
- ***Intermittent Wireless Multihop Transmission Protocol in Mobile Wireless Sensor Networks*** Hiroaki Higaki (Tokyo Denki University, Japan)
- ***Formulation of Optimum Beam-Space Processing for Directional Transmission Phased Array Systems*** Ruiting Yang (University of Adelaide Radar Research Centre, Australia)



Monday

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## Poster Session 3 – page 2

Tuesday - 4:00 PM – 5:00 PM

- ***The Maximum of CRLB of Time Delay Estimation*** Fei Wang (Nanjing University of Aeronautics and Astronautics, Nanjing, P.R. China), Hailin Li (Nanjing University of Aeronautics and Astronautics, Nanjing, P.R. China), Weijie Xia (Nanjing University of Aeronautics and Astronautics, Nanjing, P.R. China) and Jian-jiang Zhou (Nanjing University of Aeronautics and Astronautics, P.R. China)
- ***Robust Artificial Noise Assisted Secure Transceiver Optimization in AF Relay Networks with Multiple Source-Destination Pairs*** Liang Jin (Zhengzhou Information Science and Technology Institute, P.R. China), Lijian Zhang (Zhengzhou Information Science and Technology Institute, P.R. China), Kaizhi Huang (Zhengzhou Information Science and Technology Institute, P.R. China), Lizhi Zhang (Zhengzhou Information Science and Technology Institute, P.R. China), Wenyu Luo (Zhengzhou Information Science and Technology Institute, P.R. China) and Zhong Zhou (Zhengzhou Information Science and Technology Institute, P.R. China)
- ***A Handover Scheme Based on Signal Power of Coordinated Base Stations for CoMP Joint Processing Systems*** Atsuki Nakano (Chiba Institute of Technology, Japan) and Takahiko Saba (Chiba Institute of Technology, Japan)
- ***A Multiscale LDDMM Template Algorithm for Studying Ear Shape Variations*** Reza Zolfaghari (University of Sydney, Australia), Nicolas Epain (University of Sydney, Australia), Craig Jin (University of Sydney, Australia), Anthony Tew (University of York, Australia) and Joan Glaunes (University Paris Descartes, Australia)

Monday

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## Poster Session 3 – page 3

Tuesday - 4:00 PM – 5:00 PM

- ***Systematic Downloading: Analysis and Detection*** Akshay Bhandari (IIT Madras, India), Shreya Khare (IIT Madras, India) and Hema A Murthy (Indian Institute of Technology Madras, India)
- ***Force Reflection Distribution of Haptic Devices*** Mohammed M Hossny (Deakin University & Institute for Technology Research and Innovation, Australia), Asim Bhatti (Deakin University, Australia) and Saeid Nahavandi (Deakin University, Australia)
- ***Joint TOA/AOA-based Localization in Wireless Sensor Networks*** Seongah Jeong (Korea Advanced Institute of Science, Korea), Tae-Kyung Sung (Chungnam National University, Korea), Kwang-Eog Lee (Agency for Defense Development, Korea) and Joonhyuk Kang (KAIST, Korea)
- ***Error Analysis of Cooperative Positioning System using Two-Way Ranging Measurements*** Jeongmin Lim (Chungnam National University, Korea), Jeong-Hun Oh (Chungnam National University, Korea), Sang-Hoon Yoo (Chungnam National University, Korea), Seongah Jeong (Korea Advanced Institute of Science, Korea), Kwang-Eog Lee (Agency for Defense Development, Korea), JoonGoo Park (Kyungpook National University, Korea) and Tae-Kyung Sung (Chungnam National University, Korea)
- ***Optimum Power Allocation for Sum Rate Improvement in AF Multi-way Relay Networks*** Shama N. Islam (The Australian National University, Australia), Salman Durrani (The Australian National University, Australia) and Parastoo Sadeghi (The Australian National University, Australia)

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# Session 7 – Signal Processing for Communications - 2

Wednesday - 9:00 AM - 10:40 AM

- ***Adaptive Transmission Schemes for Free-Space Optical Channel*** Mohmed Salah (UniSA, Australia), William G Cowley (University of South Australia, Australia) and Khoa D. Nguyen (University of South Australia, Australia)
- ***A New Space Time Coding Scheme for the Multiple Input Single Output Wiretap Channel*** Sylvie Perreau (University of South Australia, Australia)
- ***Iterative Based Time Domain Equalization Method for OFDM Signal under High Mobile Environments*** Pongsathorn Reangsuntea (Mie University & Mie University, Japan), Pisit Boonsrimuang (King Mounkut's Institute of Technology Ladkrabang, Thailand), Kazuo Mori (Mie University, Japan) and Hideo Kobayashi (Mie University, Japan)
- ***Analysis of Beam Pattern and Spatial Capacity of Massive Antenna Array Networks with Non-Uniform User Distribution*** Zhiyu Zhang (Nanyang Technological University, Singapore), Kah Chan Teh (Nanyang Technological University, Singapore) and Kwok Hung Li (Nanyang Technological University, Singapore)
- ***On Biased Projection Method*** Norisato Suga (Tokyo University of Science, Japan) and Toshihiro Furukawa (Tokyo University of Science, Japan)



Monday

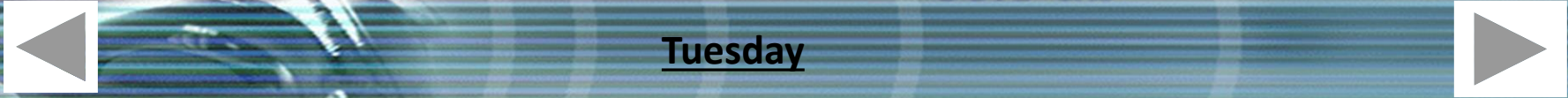
Tuesday

Wednesday

# Session 8 – Wireless Communications - 2

Wednesday - 11:00 AM - 12:40 PM

- ***Modified GroupCast Retries Block Acknowledgement Scheme in IEEE 802.11aa standard-based for Multimedia Applications*** Muhammad Afzal (Yeungnam University, Korea), Byung-Seo Kim (Hongik University, Korea) and Sung Won Kim (Yeungnam University, Korea)
- ***L1 Norm Minimization approach to MIMO detector*** Yo Hashimoto (Tokyo University of Science, Japan), Katsumi Konishi (Kogakuin University, Japan), Tomohiro Takahashi (Tokyo University of Science, Japan), Kazunori Uruma (Tokyo University of Science, Japan) and Toshihiro Furukawa (Tokyo University of Science, Japan)
- ***MIMO Enhanced Slotted Cooperation in Urban Vehicular Networks*** Ovitigalage Perera (Queensland University of Technology, Australia) and Dhammika Jayalath (Queensland University of Technology, Australia)
- ***Resource allocation in OFDM-based cognitive radio networks with multiple AF relays*** Shashika Biyanwilage (University of Western Sydney, Australia), Upul Gunawardana (University of Western Sydney, Australia) and Ranjith Liyanapathirana (University of Western Sydney, Australia)
- ***Enhanced Multi User Detection Technique of Overloaded MIMO Systems Using Network Coding Based HARQ*** Amna Qayyum (National University of Sciences & Technology & Military College of Signals, Pakistan), Adnan Ahmed Khan (National University of Sciences and Technology, Pakistan) and Khawaja Tauseef Tasneem (Iqra University, Islamabad & University of Canterbury, Pakistan)



Monday


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# Session 9 – Signal Processing for Communications - 3

Wednesday - 1:30 PM - 3:10 PM

- ***Protection of Primary Users in Areas Where Cognitive Radio is Deployed*** Andrew J Kerans (James Cook University, Australia) and Janina Mazierska (James Cook University, Australia)
- ***An Iterative FFT Approach to Tomlinson-Harashima Precoding*** Ismail Mohamed (The University of Queensland, Australia) and Vaughan Clarkson (The University of Queensland, Australia)
- ***Dynamic, Data-Driven Spectrum Management in Cognitive Small Cell Networks*** Chang-Shen Lee (National Chiao Tung University, Taiwan), Wei-Chong Chen (National Chiao Tung University, Taiwan), Shuvra Bhattacharyya (University of Maryland, USA) and Ta-Sung Lee (National Chiao Tung University, Taiwan)
- ***Interference Minimization Based Power Allocation for Cognitive Radio Networks Operating in TV White Spaces*** Shashika Biyanwilage (University of Western Sydney, Australia), Upul Gunawardana (University of Western Sydney, Australia) and Ranjith Liyanapathirana (University of Western Sydney, Australia)
- ***Adaptive Channels' Selection for Hierarchical Cluster Based Cognitive Radio Networks*** Pawel Skokowski (Military University of Technology, Poland), Krzysztof Malon (Military University of Technology, Poland), Jan Kelner (Military University of Technology, Poland), Jerzy Dolowski (Military University of Technology, Poland), Jerzy Lopatka (Military University of Technology, Poland) and Piotr Gajewski (Warsaw Military University, Poland)



Monday

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# Session 10 – Wireless Communications - 3

3:30 PM - 5:10 PM

- **Maximisation of Sum Rate in Cognitive Multi-cell Wireless Networks with QoS Constraints** Enlong Che (University of Technology, Sydney, Australia), Hoang D. Tuan (University of Technology, Sydney, Australia), Tam Ho (University of Technology, Sydney, Australia) and Ha Nguyen (University of Saskatchewan, Canada)
- **Performance Evaluation of an Adaptive Semi-Persistent LTE Packet Scheduler for M2M Communications** Nusrat Afrin (University of Newcastle, Australia), Jason Brown (University of Newcastle, Australia) and Jamil Y Khan (The University of Newcastle, Australia)
- **Empirical Vehicle-to-Vehicle Pathloss Modeling in Highway, Suburban and Urban Environments at 5.8 GHz** Okechukwu J Onubogu (Queensland University of Technology, Australia), Karla Ziri-Castro (QUT, Australia), Dhammika Jayalath (Queensland University of Technology, Australia), Keyvan Ansari (Queensland University of Technology, Australia) and Hajime Suzuki (CSIRO, Australia)
- **Outage Performance of Opportunistically Placed Low-powered Base Stations in Heterogeneous Cellular Networks** Aroba Khan (University of Sydney, Australia) and Abbas Jamalipour (University of Sydney, Australia)
- **Outlier-Aware Spectrum Sensing in Cognitive Radio Networks** Gaurav Kapur (IIT Kanpur, India) and Ketan Rajawat (Indian Institute of Technology Kanpur, India)



Monday

Tuesday

Wednesday