# **CONFERENCE PROGRAM**

Second International Conference on Communications and Networking in China (CHINACOM 2007)



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### **GREETINGS FROM THE GENERAL CHAIRS**

On behalf of the organizing committee, we would like to welcome you to the 2nd International Conference on Communications and Networking in China (CHINACOM 2007), to be held in Shanghai on August 22-24, 2007. CHINACOM 2007 is being positioned as a premier international annual conference for the presentation of original contributions and fundamental advances in the field of Communications, Networks, and Internet Applications. It will showcase a strong technical program consisting of 6 Symposia, special sessions. CHINACOM 2007 will also feature two prominent invited keynote speakers: Dr. David G. Belanger, AT&T Labs Research V.P. and Chief Scientist of Information & Software Systems, and Dr. Paulo T. de Sousa, Head of Sector, Internet of the Future, in the Directorate-General Information Society, European Commission. We are very grateful to the sponsorship of Create-Net, ICST, and Shanghai Jiao Tong University, and technical support of IEEE, IEEE CAS, IEEE MTT-S, IEEE CVTC, Beijing University of Posts and Telecommunications, and Zhejiang University.

We would like to express our sincere thanks and appreciation to all the organizing committee members, the technical program chairs, symposium chairs, the technical program committee members and reviewers. We would also like to thanks all the authors for submitting their papers to the conference. All accepted and presented papers will be included in the CHINACOM 2007 Conference Proceedings. They will be made available in IEEE Xplore Digital Library and be indexed by Engineering Information (EI). Selected papers from the conference will be considered for possible publication in several international journals. The conference venue is the ETON HOTEL SHANGHAI, an International deluxe 5-Star business hotel strategically located in the heart of Lujiazui Finance and Trade Zone in Pudong. We wish to see you all in Shanghai to experience the wonderful CHINACOM 2007 and to enjoy the spectacular city.

### **General Chairs, CHINACOM 2007**



Wenjun Zhang Vice President Shanghai Jiao Tong University



Xuemin (Sherman) Shen Professor and University Research Chair University of Waterloo, Canada

### GREETINGS FROM THE TECHNICAL PROGRAMMING COMMITTEE CHAIRS

CHINACOM will be organised second time in 2007. The success of the event is proven by all together 670 submissions to six symposia. Out of these submissions 253 were selected for presentation in different symposia and overall acceptance ratio is 37.7%.

CHINACOM is a meeting ground for leading experts from industry, academia and regulatory bodies. All have their share in making the event one of high quality. At the same time, CHINACOM also offers a wonderful opportunity for young researchers to present and participate in an international forum. A number of measures will be taken in the planning process in order to further increase the exchange of information between specialists and in order to ensure the diversity at the event.

The programme for CHINACOM 2007 will be built from elements that allow participants from academia, industry and other types of organisations to select tracks that interest them most. Programme elements include, among others, invited talks of high quality and panel discussions based on controversial topics. The exchange of information will be stressed in the presentation of key research activities in different parts of the world. Also the latest regulatory achievements will be discussed in technical sessions. The keynote speakers include David G. Belanger from AT&T Labs and Paulo T. de Sousa from European Commission. Hence, participants can expect to hear the latest advances both from industry and European research perspectives.

The event is organised in Shanghai, which is a modern metropolitan city and an ideal location for a major international event. The TPC Chairs welcome you all to CHINACOM 2007. Your participance will make the event a memorable experience. See you all in Shanghai!



Andreas F. Molisch Mitsubishi Electric Research Labs and Lund University



Matti Latva-aho University of Oulu



Xiaodong Wang Columbia University

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#### Wireless Communications and Networking Symposium:

Petri Mahonen RWTH Aachen University Chonggang Wang University of Arkansas Wenye Wang North Carolina State University

#### Advances in Internet Symposium:

Alex Galis University College London Jiannong Cao Hong Kong Polytechnic University Junzhong Gu East China Normal University Minglu Li Shanghai Jiao Tong University

Comm. Theory & Signal Processing for Communications Symposium:

Thomas Kaiser Leibniz University of Hannover Zongxin Wang Fudan University Mischa Dohler France Telecom

Networking Security and Information Assurance Symposium:

Zhenfu Cao Shanghai Jiao Tong University Peter Stavroulakis Technical University of Crete Radha Poovendran University of Washington

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**Bernard Uguen** 



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### Marina Petrova



**Xiaokang Yang** 



**Bin Wang** 



Shenghong Li



**Chunsheng Xin** 



**Xinbing Wang** 

8:00	Registration						
	Eton Grand Ballroom						
9:30-10:00	Welcome and Opening Remarks Prof. Wenjun Zhang and Prof. Andreas F. Molisch						
10:00-11:00	Keynote Address I Directions for Communications Research, Dr. David Belanger						
11:00-11:30	Coffee Break						
11:30-12:30	Keynote Address II EU and the Internet of the Future, Dr. Paulo T. de Sousa						
12:30-14:30	Lunch Break						
Session Rooms	Eton Ballroom I	Eton Ballroom II	Maple Room	Cedar Room	Ebony Room	Function Room	
14:30-16:00	WCN-01: Wireless Sensor Networks I – Localization Algorithms	WC-07: Wireless Local and Personal Area Networks	WCN-18: Physical Communications I – MIMO and OFDM	FCN-01: Detection and Measurement	IN-01: Middleware, Services & Interfaces - I	SP-01: MIMO	
16:00-16:30	Coffee Break						
16:30-18:00	WCN-02: Wireless Sensor Network II – Routing Protocols	WCN-08: Applications	OCN-01: Traffic Grooming and Traffic Engineering	NS-01: Security of Wireless Sensor and Ad Hoc Networks	IN-02: Middleware, Service& Interfaces - II	SP-02: OFDM, Multicarrier and Multiuser Systems	

### Program of ChinaCom 2007 on 22 Aug.

WCN: Wireless Communications and Networking SymposiumOCN: Optical Communications and Networking SymposiumFCN: Frontiers on Communications and Networking SymposiumNS: Networking Security and Information Assurance SymposiumIN: Advance in Internet SymposiumSP: Communication Theory and Signal Processing for Communications Symposium

8:00	Registration						
Session Rooms	Eton Ballroom I	Eton Ballroom II	Maple Room	Cedar Room	Ebony Room	Function Room	Laurel Room
9:00-10:30	WCN-03: Wireless Sensor Networks III – Data Aggreg., Oue. and Proc.	WCN-09: Wireless Mesh Networks I – Quality of Service	WCN-19: Physical Communicatio ns II – MIMO and OFDM	FCN-02: Resource Allocation	NS-02: Security Engineering	SP-03: Receiver Detection Technology	SS-1: Digital Broadcasting and Mobile Convergence
10:30-11:00	Coffee Break						
11:00-12:30	WC-04: Wireless Sensor Networks IV – MAC Protocols	WCN-10: Wireless Mesh Networks II – Analysis and Modeling	OCN-02: Routing and Wavelength Assignment	FCN-03: P2P Networks	NS-03: Security Protocols	IN-03: Security & Compensation	SS-2: Digital Broadcasting and Mobile Convergence
12:30-14:30	Lunch Break						
14:30-16:00	WC-05: Wireless Sensor Networks V – Topology Control	WCN-14: Cellular Networks I – Admission Control	WCN-20: Physical Communicatio ns III – MIMO and OFDM	FCN-04: Routing and Relaying Protocols	NS-04: Digital Watermarking	SP-04: Diversity and Cooperation	SS-3: Ambient Networks
16:00-16:30	Coffee Break						
16:30-18:00	WC-06: Wireless Sensor Networks VI – Miscellaneous ness	WCN-15: Cellular Networks II – Scheduling Algorithms	OCN-03: Optical Network Protection and Restoration	FCN-05: Admission and Congestion Control	NS-05: Security of Ad Hoc Networks	SP-05: Error Control Coding and ARQ	SS-4: Ambient Networks
19:00-21:00	Awarding and Banquet (Eton Grand Ballroom) Prof. Sherman Shen and Prof. Matti Latva-aho						

### Program of ChinaCom 2007 on 23 Aug.

WCN: Wireless Communications and Networking Symposium<br/>FCN: Frontiers on Communications and Networking SymposiumOCN: Optical Communications and Networking Symposium<br/>NS: Networking Security and Information Assurance Symposium<br/>SP: Communication Theory and Signal Processing for Communications SymposiumSS: Special Session<br/>SP: Communications Symposium

8:00	Registration					
Session Rooms 9:00-10:30	Eton Ballroom I WCN-11: Ad Hoc Networks I – Routing Protocols	Eton Ballroom II WC-16: Cellular Networks III – Handover and Mobile IP	Maple Room FCN-06: Cognitive Communications and Cooperative Diversity	Cedar Room IN-04: Congestion Control	Ebony Room NS-06: Security in Large Scale Environments	Function Room SP-06: Channel Estimation and Modeling
10:30-11:00	Coffee Break					
11:00-12:30	WCN-12: Ad Hoc Networks II – Routing Protocols	WCN-17: Cellular Networks IV – Performance Analysis and Improvement	OCN-04: System Performance of Optical Networks	IN-05: Routing & Traffic Engineering	NS-07: Security Attacks and Vulnerability Analysis - I	SP-07: Signal Processing for UWB
12:30-14:30	Lunch Break					
14:30-16:00	WCN-13: Ad Hoc Networks III– Quality of Service	WCN-21: Physical Communications IV – Miscellaneousness	FCN-07: Topics in Communications and Networking I	IN-06: Peer-to-Peer Networks	NS-08: Security Attacks and Vulnerability Analysis - II	SP-08: Speech, Video and Image Signal Processing
16:00-16:30	Coffee Break					
16:30-18:00	WCN-23: Ultra Wideband	WCN-22: Physical Communications V – Miscellaneousness	FCN-08: Topics in Communications and Networking II	IN-07: Quality of Service	NS-09: Distributed Security Systems	SP-09: Advance Signal Processing Algorithms

### Program of ChinaCom 2007 on 24 Aug.

WCN: Wireless Communications and Networking SymposiumOCN: Optical Communications and Networking SymposiumFCN: Frontiers on Communications and Networking SymposiumNS: Networking Security and Information Assurance SymposiumIN: Advance in Internet SymposiumSP: Communication Theory and Signal Processing for Communications Symposium

### **KEYNOTE ADDRESS I**



David G. Belanger AT&T Labs Chief Scientist Information & Software Systems Research V.P. AT&T Labs

Date and Time: Wed. 22<sup>nd</sup> Aug., 10:00-11:00

### **Directions for Communications Research**

### ABSTRACT

This keynote talk focuses on some of the leading trends in Communication Technology. These include a number of focused trends as exemplified by specific projects that AT&T Shannon Labs is currently pursuing. These include working crossing the areas of: IP & Voice Services Research, the Internet & Network Systems Research, and Information and Software Systems Research. It also includes a discussion of a few of the overarching trends that we see changing the landscape of communications network, service, and operations technology over the next several years.

### BIOGRAPHY

David Belanger is currently the AT&T Labs Chief Scientist, and the Vice President of Information & Software Systems Research at AT&T Labs in Florham Park, NJ. As Chief Scientist, he is responsible to the AT&T Labs CEO for: identifying pre-product technology important to the future of AT&T, evaluating technology, building alignment within AT&T on technology directions, and serving as AT&T liaison to external technical communities, specifically universities, government agencies and industrial laboratories. The Information & Software Systems Research Lab conducts research in: large scale and real time information mining related to operations of a (communications) service business; interactive, information visualization; scaleable, reliable software systems; and new, information based, communications services. It is also responsible for delivery and operations of very large scale (e.g. >300TB) near real time service management capabilities to AT&T and its customers.

Dave joined AT&T Bell Laboratories in 1979 working in the area of database support for economic analysis for product lifecycles. This was followed by research on large scale data and information systems, and program generation for data manipulation systems. He has subsequently led research efforts in software systems and engineering, and information mining, and visualization. Prior to joining AT&T, Dave was on the Mathematics and Computer Science Faculty at University of South Alabama, a consultant for a variety of organizations, and co-founder/VP of Gulf Coast Data Systems (a computing services company). He received his B. S. from Union College (NY) in Mathematics, and an M. S. and Ph.D., also in Mathematics, from Case Western Reserve University.

In 1998, Dave was awarded the AT&T Science and Technology Medal for his contributions in very large scale information mining technology. In 2006, he was named an AT&T Fellow for "lifetime contributions in software, software tools, and information mining".

### **KEYNOTE ADDRESS II**



Paulo T. de Sousa Head of Sector, Internet of the Future Directorate-General Information Society European Commission

Date and Time: Wed. 22<sup>nd</sup> Aug., 11:30-12:30

### EU and the Internet of the Future

### ABSTRACT

The Future Internet will emerge from advances in a range of critical technologies, converging and evolving in parallel, and from market, business and societal evolutions. These developments are driven by a growing and changing demand for user control of content and services, increasing networking of "things", and convergence at networks, devices and services levels.

The European Commission is undertaking under its 7th Framework Programme for R&D activities to enable the European economy and society to stay well positioned to master, shape and benefit from the Future Internet. Various paths have to be explored including in particular network and service convergence, software and security solutions that will bring significant improvements to the scalability, flexibility, security, dependability and robustness of the Internet while increasing its performance and functionalities.

The research into the Future Internet focuses on overcoming the expected long term limitations of current Internet capabilities, architecture and protocols through work of exploratory nature to address how various classes of new requirements constrain the foreseeable evolution of the Internet and identify corresponding long term solutions.

The talk will address this evolution of the Internet and how it is being studied by our research programmes.

### BIOGRAPHY

Previously he headed the sector Mobile and Wireless beyond 3G, the largest strategic objective of the IST Programme, funding leading research on future telecommunications systems.

He coordinated the Broadband Access For All strategic objective in the Information Society Programme (IST), with the aim of creating a cheaper, faster and more reliable internet. He has been instrumental in the pursuing of a Broadband Europe, with emphasis on alternate technologies such as power line communications. He received his undergraduate degree from the University of Luanda, Angola and his Ph.D. in Electrical Engineering from the University of Missouri at Columbia (USA). He has an extensive background on telecommunications network planning and design with several multinational companies, including Rockwell International, Nortel and Verizon. He served as an ITU consultant in BanglaDesh and received two IEEE Outstanding Service Awards. He is co-author of the book "Network Systems" and a former Rotary Foundation Fellow.

### SPECIAL SESSIONS

Special Sessions on Digital Broadcasting and Mobile Convergence

### Date and Time: Thu. 23<sup>rd</sup> Aug. 2007, 9:00-12:30

Location: Laurel Room

#### **Sessions Chair:**

**Norman Hendrich** University of Hamburg

SS1.1 Multistandard Integrated Network Convergence for Mobile and Broadcast Technologies Norman Hendrich and Jianwei Zhang

SS1.2 The SAMBA Approach to Community-based Content Generation in Interactive Digital Television Oscar Mayora-Ibarra, C. Costa

**SS1.3 A Joint EU-China Roadmap for Mobile Multimedia Industry: the Preliminary Results** *Xiaofeng Ma, Jian Xiong, Lin Gui, Chen Liu, and Wunjun* 

Zhaojeng Ma, Jian Xiong, Lin Gui, Chen Liu, and Wunjun Zhang

SS1.4 MOBISERVE - Toward the next generation of convergent mobile TV services *Jie Zhou, Jianzhong Li* 

**SS1.5 A Survey of Digital TV Standards in China** *Roland A. Burger, Giovanni Iacovoni, Cliff Reader, Xiaoming Fu, Xiaodong Yang, Wang Hui* 

SS2.1 Scalable Video Streams Transmission Strategy with Subflows Division over OFDM Broadcasting/ IEEE802.11e Wireless Network

Jingyuan Wang, Lifeng Sun, Shiqiang Yang

# SS2.2 An initial study on the convergence of DVB-H and DTMB in the physical layer

Feng Yang, Jian Song, Changyong Pan, Hui Yang, Kewu Peng, Jun Wang, Zhixing Yang

**SS2.3 PLC as a Return Channel for Interactive Digital TV** Eduardo Ibanhez Polo, Andre Riyuiti Hirakawa, Moacyr Martucci Junior

# SS2.4 Mobile TV extension to WiFi networks for location dependent services

Yun Tao Shi, Sinan Shang Guan, Jun Li

#### **Special Sessions on Ambient Networks**

Date and Time: Thu. 23<sup>rd</sup> Aug. 2007, 14:30-18:00

**Location: Laurel Room** 

Sessions Chair: Di Zhou Siemens

SS3.1 Network Composition: A Framework for Dynamic Interworking between Networks

Nadeem Akhtar, Cornelia Kappler, Peter Schefczik, Laurensius Tionardi, Di Zhou

#### SS3.2 Autonomic Management of Context-Aware Ambient Overlay Networks

Bertrand Mathieu, Meng Song, Alex Galis Lawrence Cheng, Kerry Jean, Roel Ocampo, Zhaohong Lai, Marcus Brunner, Martin Stiemerling, Marco Cassini, Markus Kampmann

**SS3.3** ContextWare Architecture for Ambient Networks Szymacha R., Szydlo T., Zielinski K., Jean K., Galis A.

**SS3.4 QSON: QoS-aware Service Overlay Network** *Meng Song, Bertrand Mathieu* 

#### SS3.5 ASI – the Ambient Network Service Interface

Markus Kampmann, Stefan Bleiholder, Adnan Tariq, Kerry Jean, Zhaohong Lai, Mirko Cano Soveri, Kazimierz Balos, Martin Stiemerling

# SS4.1 Study of Handover Strategies for Multi-Service and Multi-Operator Ambient Networks

Petteri Poyhonen, Janne Tuononen, Haitao Tang, Ove Strandberg

SS4.2 Resource Management Methods for Multi-Access Networks: Emulation Results for GSM

Francesco Meago, Simona Cavalli, Matteo Coloberti

#### SS4.3 Paging Issues and Methods for Multiaccess

Haitao Tang, Petteri Poyhonen, Ove Strandberg, Kostas Pentikousis, Joachim Sachs, Francesco Meago, Janne Tuononen, Ramon Aguero,

### SS4.4 Distributed Event-signaling in Ambient Networks Based on IP-multicast

Di Zhou, Cornelia Kappler

# SS4.5 Validation of the Ambient Network System Architecture

Aurelian Bria, Jan Markendahl, Rene Rembarz, Petteri Poyhonen, Csaba Simon, Marco Miozzo, Nadeem Akhtar, Ralf Jennen

### **TECHNICAL SESSIONS**

### Wireless Communications and Networking Symposium<sup>1</sup>

#### **Symposium Chairs:**

#### Petri Mahonen

RWTH Aachen University Chonggang Wang University of Arkansas Wenye Wang North Carolina State University

#### Sessions:

WCN-01: Wireless Sensor Networks I – Localization Algorithms Date and Time: Wed. 22<sup>nd</sup> Aug. 14:30-16:00 Location: Eton Ballroom I

**WCN01.1 Link State Based Annulus Localization Algorithm for Wireless Sensor Networks** *Xin Li, Bei Hua, Yan Guo, University of Science and* 

Technology of China, China

# WCN01.2 On Demand Localization Algorithm for Wireless Sensor Networks

Ning Yu, Jiangwen Wan, Beijing University of Posts and Telecommunications, Beijing, China

#### WCN01.3 A Novel Location Information based Clustering Algorithm for Wireless Sensor Networks Yun Zhu, Youyun Xu, Yueming Cai, PLAUST, China

WCN01.4 Distributed Weighted Least Squares Scaling with Soft-Constraint for Node Localization in Wireless Sensor Networks

Fang Zhao, Yan Ma, Quan Lin, Beijing University of Posts and Telecommunications, Beijing, China, Haiyong Luo, Institute of Computing Technology, Chinese Academy of Sciences, Beijing, China

### WCN-02: Wireless Sensor Network II – Routing Protocols

Date and Time: Wed. 22<sup>nd</sup> Aug. 16:30-18:00 Location: Eton Ballroom I

WCN02.1 Mission-Oriented Selective Routing for Wireless Sensor Networks

Donggeon Noh, Dongeun Lee, Heonshik Shin, Seoul National University, Seoul, Korea

## WCN02.2 Grid-based directed diffusion for wireless sensor networks

Yun Li, Shuangquan Xiong, Qianbin Chen, Chong Qing University of Posts and Telecom., Chongqing, China, Fei Fang, Nei Jiang Teacher's College of China, SiChuan, China

WCN02.3 DLEC: A Delay-constrained Least Energy Consumption Routing Protocol in Wireless Sensor Network

Jue Hong, Hao Han, SangLu Lu, Daoxu Chen, Li Xie, Nanjing University, Nanjing, China

WCN02.4 Cooperative MISO-Based Energy Efficient Routing Strategies for Wireless Sensor Networks

Baiwei Yang, JinHuai Guo, Hongyi Yu, Dalong Zhang, Zhengzhou Information Science and Technology Institute, Zhengzhou, China

### WCN-03: Wireless Sensor Networks III – Data Aggregation, Querying and Processing Date and Time: Thu. 23<sup>rd</sup> Aug. 9:00-10:30 Location: Eton Ballroom I

### WCN03.1 Reliable Data-Aggregation using Multi-nodes Cooperation in Wireless Sensor Networks

Zhendong Wu, Shanping Li, Zhejiang University, Hangzhou, China

#### WCN03.2 WISNO: Ontology Data-Processing Strategy for Wireless Sensor Networks

Shuoping Wang, Yuheng Hu, Zhendong Wu, Ming Guo, Zhejiang University, Hangzhou, China

# WCN03.3 Energy Efficient Top-k Query Processing in Dynamic Sensor Network

Qunhua Pan, Minglu Li, Minyou Wu, Shanghai JiaoTong University, Shanghai, China, Shuwang Li, Information Center of The Ministry of Public Security, Beijing, China

#### WCN03.4 AdWAS: Adaptive Weighted Aggregation Scheme for Single-hop and Multi-hop Wireless Sensor Network

Bhushan Jagyasi, Shabbir Merchant, Deepthi Chander, Uday Desai, Bikash Dey (Indian Institute of Technology Bombay, India

# WCN-04: Wireless Sensor Networks IV – MAC Protocols

Date and Time: Thu. 23<sup>rd</sup> Aug. 11:00-12:30 Location: Eton Ballroom I

<sup>&</sup>lt;sup>1</sup> The presentation time for each paper is 22 minutes (18 min. presentation + 4 min. Q & A)

# WCN04.1 A Traffic Queue-aware MAC Protocol for Wireless Sensor Networks

Xinming Zhang, Zhiwei Zhao, Peng Sun, Pengxi Liu, University of Science and Technology of China, Hefei, China

WCN04.2 A Self-Organize Multi-Channel Medium Access Control (SMMAC) Protocol for Wireless Sensor Networks Kae Hsiang Kwong, Tsung-Ta Wu, Craig Michie, Ivan Andonovic, University of Strathclyde, Glasgow, United Kingdom

WCN04.3 PSO-based Hybrid Algorithm for Multiobjective TDMA scheduling in Wireless Sensor Networks Tao Wang, Zhiming Wu, Jianlin Mao, Shanghai Jiao Tong University, Shanghai, China

WCN-05: Wireless Sensor Networks V – Topology Control Date and Time: Thu. 23<sup>rd</sup> Aug. 14:30-16:00 Location: Eton Ballroom I

WCN05.1 A Node Scheduling Scheme Based on Coverage-Preserving for Wireless Sensor Network

Yufu Jia, HuBei University of Economics, Wuhan, China, Hongjun Liu, Jiujiang University, Jiujiang, China

### WCN05.2 A Perimeter Intrusion Detection System Using Dual-Mode Wireless Sensor Networks

Yuheng Liu, Chao Li, Yang He, Jing Wu, Zhang Xiong, Beihang University, Beijing, China

### WCN05.3 Connectivity of Wireless Sensor Networks with Unreliable Links

Ruifeng Zhang, Jean-Marie Gorce, CITI / INSA-Lyon, ARES / INRIA Rhone-Alpes, France

#### WCN05.4 Mobile Node Deployment in Hybrid Sensor Networks

Shupeng Wang, Institute of Chinese Academy, Beijing China, Mei Yang, University of Nevada, Las Vegas, USA

Jianping Wang, City University of Hong Kong, Hong Kong, China, Yingtao Jiang, Ju-Yeon Jo (University of Nevada, Las Vegas, USA

#### WCN-06: Wireless Sensor Networks VI – Miscellaneousness

Date and Time: Thu. 23<sup>rd</sup> Aug. 16:30-18:00 Location: Eton Ballroom I

#### WCN06.1 Semi-Centralized Approach for optimized Multi-hop Virtual MIMO Wireless Sensor Networks

Pan Zhou, Xuebing Pei, Kanru Xu, Huazhong University of Sci. & Tech., Wuhan, China

WCN06.2 Autonomous Target Blocking Using Hybrid Wireless Sensor Networks

Wenzhe Zhang, Minglu Li, Shanghai Jiaotong University, Shanghai, China, Hong Feng, Ocean University of China, Qingdao, China

# WCN06.3 A Modular Wireless Sensor Network Gateway Design

Lili Wu, Janne Riihijärvi, Petri Mähönen, RWTH Aachen University, Aachen, Germany

#### WCN06.4 The Expected Energy Consumption of Wireless Distributed Sensor Networks Based on Node Random Failures

Wei An, Fangming Shao, Huajun Meng, East China University of Science and Technology, Shanghai, China

### WCN-07: Wireless Local and Personal Area Networks

### Date and Time: Wed. 22<sup>nd</sup> Aug. 14:30-16:00 Location: Eton Ballroom II

WCN07.1 Performance Evaluation of IEEE 802.11 Infrastructure Mode with Intra-Cell UDP Traffic Xiaowen Chu, Yong Yan, Hong Kong Baptist University, Hong Kong, China

# WCN07.2 Optimal Configuration of IEEE 802.11e EDCA with Variable Packet Length

Wei Zhang, Jun Sun, Jing Liu, Youyun Xu, Shanghai Jiao Tong University, Shanghai, China

# WCN07.3 Next-Generation WLAN Architecture for High Performance Networks

Vivek Soni, Rohit Mendiratta , Kota Engineering College, Kota , India

#### WCN07.4 Spatial multiplexing capacity analysis for threedimensional wireless personal area networks

Lin X. Cai, University of Waterloo, Canada, Lin Cai, University of Victoria, Canada, Xuemin Shen, Jon Mark, University of Waterloo, Canada

# WCN07.5 AHP-based Master Device Selection Mechanism for Pervasive personal network

Zheng Hu, Lei Zhang, Beijing University of Posts and Telecommunications, Beijing, China, Wei Liu, Shanghai Normal University, Shanghai, China, Yaoyao Yin, Beijing University of Posts and Telecommunications, Beijing, China

#### WCN-08: Applications Date and Time: Web. 22<sup>nd</sup> Aug. 16:30-18:00 Location: Eton Ballroom II

## WCN08.1 (Invited) Cooperative Communications for Ultra-Reliable Wireless Networks

Andreas F. Molisch, Mitsubishi Electric Research Labs, Cambridge, USA, and Lund University, Sweden

# WCN08.2 A Low-cost Fingerprint Positioning System in Cellular Networks

Claude Takenga, Leibniz University of Hannover, Germany, Kyandoghere Kyamakya, Aplen Adria University Klagenfurt, Austria

#### WCN08.3 A Mobile Telephone Based, Secure Micro-Payment Technology Using the Existing ICT Infrastructure

Hasan Amca, Raygan Kansoy, Eastern Mediterranean University, North Cyprus

#### WCN08.4 A Hybrid Network Architecture for Mobile Multimedia Group Conferencing Based on SIP Initiated SSM

Thomas C. Schmidt, Matthias Wahlisch, HAW Hamburg, Dep. Informatik Berliner Tor 7, Germany, Hans L. Cycon, Mark Palkow, FHTW Berlin University of Applied Sciences, Germany

# WCN08.5 A New Slot-Count Selection Algorithm for RFID Protocol

Mahmoud Daneshmand, AT&T Labs Research, Florham Park, USA, Chonggang Wang, Kazem Sohraby, University of Arkansas, Fayetteville, USA

# WCN-09: Wireless Mesh Networks I – Quality of Service

Date and Time: Thu. 23<sup>rd</sup> Aug. 9:00-10:30 Location: Eton Ballroom II

#### WCN09.1 A Distributed Channel Assignment for 802.11based Multi-Radio Wireless Mesh Networks

Deepesh Man Shrestha, Arun Ranjitkar, Young-Bae Ko, Ajou University, Korea

#### WCN09.2 An Iterative Approach for Maximum Concurrent Transmission in Multi-Channel Wireless Mesh Networks

Alireza Ghiamatyoun, Mohammad Nekoui, Said Nader Esfahani, University of Tehran, Iran, Mehdi Soltan, Stanford University, USA

#### WCN09.3 Quality-Based Adaptive Image Transmission in Multihop Wireless Mesh Networks

Wei Wang, Song Ci, Honggang Wang, Dongming Peng, Hamid Sharif, University of Nebraska-Lincoln, USA

#### WCN09.4 Throughput Enhancement with Bidirectional Concurrent Transmission in IEEE 802.16 Mesh Networks

Qing Xiong, Wuhan University, China, Weijia Jia, City University of Hong Kong, Hong Kong, China, Chanle Wu, Gang Ye, Wuhan University, China

# WCN-10: Wireless Mesh Networks II – Analysis and Modeling

### Date and Time: Thu. 23<sup>rd</sup> Aug. 11:00-12:30 Location: Eton Ballroom II

### WCN10.1 Characterizing and Evaluating Interference in Multi-Channel Wireless Mesh Networks

Yunxia Feng, Munglu Li, Min-You Wu, Ling Ding, Shanghai Jiao Tong University, China

#### WCN10.2 Performance Improvement Based on Path Delay Analysis in WiMax Mesh Networks

Zheng Liu, Min Yang, Jufeng Dai, Tianjian University, China

# WCN10.3 Deterministic results on capacity-delay tradeoffs in wireless multi-hop networks

Jingyong Liu, Lemin Li, University of Electronic Science and Technology of China, China

#### WCN10.4 Performance Analysis of Location Management Schemes in WiMAX Mesh Network

Weiqi Hu, Shihong Zou, Shiduan Cheng, Beijing University of Posts and Telecommunications, China

# WCN-11: Ad Hoc Networks I – Routing Protocols

### Date and Time: Fri. 24<sup>th</sup> Aug. 9:00-10:30 Location: Eton Ballroom I

### WCN11.1 A Multipath Routing-based Misbehavior Detection in Ad Hoc Networks

Li Zhao, Jose G. Delgado-Frias, Washington State University, USA

# WCN11.2 The redundant cache: An enhancement of cache mechanism in DSR

Dong Shi, Xinming Zhang, Xuemei Gao, Wenbo Zhu, Hui Fei, University of Science and Technology of China, China

# WCN11.3 An Efficient Heuristic Gossiping Mechanism in Ad Hoc Routing

Xuemei Gao, Xinming Zhang, Dong Shi, Guoliang Chen, University of Science and Technology of China, China

# WCN11.4 An Energy-Balanced Routing Protocol for MANETs

Yan Gu, Hohai University, China, Lianfeng Shen, Southeast University, China

# WCN-12: Ad Hoc Networks II – Routing Protocols

Date and Time: Fri. 24<sup>th</sup> Aug. 11:00-12:30 Location: Eton Ballroom I

#### WCN12.1 Semi-Probabilistic Routing in Intermittently Connected Mobile Ad Hoc Networks

Ke Shi, Huazhong University of Science and Technology, China WCN12.2 Secure Anonymous Routing in Trust and Clustered Wireless Ad Hoc Networks

Sisheng Chen, Li Xu and Zhide Chen, Fujian Normal University, China

WCN12.3 Load balanced broadcasting in Ad Hoc Networks Using Directional Antennas

Ling ding, Yifeng Shao, Minglu Li, Minyou Wu, Shanghai Jiao Tong University, China

WCN12.4 A New Approach to Anonymous Multicast Routing in Ad Hoc Networks

Lichun Bao, University of California, Irvine, USA

# WCN-13: Ad Hoc Networks III– Quality of Service

Date and Time: Fri. 24<sup>th</sup> Aug. 14:30-16:00 Location: Eton Ballroom I

WCN13.1 An Admission Control Based on Analytical Model for Bandwidth Reservation in Ad-Hoc Networks Manel Bourguiba, Leila Azzouz Saidane, University of

Manouba, Tunisia

WCN13.2 A Measure of Mobility for Evaluating Mobile Ad Hoc Network Performance

Linna He, Wei Yin, Shanghai University of Engineering Science, China

#### WCN13.3 QoS Architecture in Ad Hoc Networks

Tor K. Moseng and Oivind Kure, Norwegian University of Science and Technology, Norway

#### WCN13.4 A Novel Reliable Broadcast Scheduling Protocol For Multi-hop Wireless Networks

Dalong Zhang, Hongyi Yu, Hanying Hu, Ana Liu, Zhengzhou Information Science and Technology Institute

# WCN-14: Cellular Networks I – Admission Control

Date and Time: Thu. 23<sup>rd</sup> Aug. 14:30-16:00 Location: Eton Ballroom II

#### WCN14.1 A Game Theory-based Fairness Call Admission Control Scheme for CDMA Systems

Hui Zhang, Xuming Fang, Qin Yuan, Southwest Jiao Tong University, China

#### WCN14.2 Voice/Data Call Admission Control Algorithm Based on Call Buffer in Wireless Networks

Li Fu, Hong-ke Zhang, Yan Huo, Yu-min Feng, Beijing Jiao Tong University, China

# WCN14.3 Two-Tier Call Admission Control to Minimize CBP/CDP in Heterogeneous Wireless Networks

Woojin Seok, Yoonjoo Kwon, Korea Institute of Science and Technology Information, Korea, Young-Ha Hwang, SungKee Noh, Electronic Telecommunications Research Institute, Korea, Sang-Ha Kim, Chungnam National University, Korea

WCN14.4 Effects of DA Protocol on Traffic and a Novel Admission Control Algorithm for Multimedia

Lu Rong, Lu Ruimin, Nanjing Telecommunication Technology Institute, China, Cao Zhigang, Tsinghua University, China

### WCN-15: Cellular Networks II – Scheduling Algorithms

Date and Time: Thu. 23<sup>rd</sup> Aug. 16:30-18:00 Location: Eton Ballroom II

## WCN15.1 Scheduling and Performance of Multicarrier TD-SCDMA HSDPA

Lin Huibin, Nokia Siemens Network, Beijing, China, Chen Shuping, Beijing University of Posts and Telecommunications, China, Kokkos Asimakis, Nokia Siemens Networks, China

WCN15.2 STEM+: A Fair and Efficient Algorithm for Scheduling on the DSCH of UMTS Networks *R. M. Karthik, Joy Kuri, Indian Institute of Science, India* 

# WCN15.3 Performance of Scheduling Algorithms for HSDPA

Matthias Malkowski, Andreas Kempre, Xiaohua Wang, RWTH Aachen University, Germany

WCN15.4 Adaptive Cross-layer Scheduling and Dynamic Subcarrier Allocation Algorithm Based on Servicedifferentiation in Multiuser OFDMA System

Xuebing Pei, Gan Liu, Guangxi Zhu, Li Li, Huazhong University of Science and Technology, China

# WC-16: Cellular Networks III – Handover and Mobile IP

### Date and Time: Fri. 24<sup>th</sup> Aug. 9:00-10:30 Location: Eton Ballroom II

WCN16.1 A Vertical Handoff Decision Algorithm (VHDA) and a Call Admission Control (CAC) policy in integrated network between WiMax and UMTS Yu Liu, Chi Zhou, Illinois Institute of Technology, USA

# WCN16.2 Design and Performance Evaluation of a Scalable Authentication Protocol in Mobile IP

Yong Lee, Chungju National University, Korea, Goo Yeon Lee, Hwa Jong Kim, Kangwon National University, Korea

#### WCN16.3 A Transport Layer Seamless Handover for Streaming Media in Wireless Overlapping Networks

Jingyu Wang, Jianxin Liao, Xiaomin Zhu, Jing Wang, Cong Liu, Zhaowen lin, Beijing University of Posts and Telecommunications, China

WCN16.4 An Analytical Model for Performance Evaluation of Handover Decision Algorithms

Xuejun Cai, Nokia Siemens Networks, China, Caixia Chia, Bell-labs Research China, Alcatel-Lucent

### WCN-17: Cellular Networks IV – Performance Analysis and Improvement Date and Time: Fri. 24<sup>th</sup> Aug. 11:00-12:30 Location: Eton Ballroom II

## WCN17.1 Voice Capacity with Coverage-based CRRM in a Heterogeneous UMTS/GSM Environment

Lin Wang, H. Aghvami, N. Nafisi, King's College London, UK, O. Sallent, J. Perez-Romero, Universitat Politecnica de Catalunya, Spain

# WCN17.2 An Analysis of and the Solution to the Loophole of GPRS Protocols

Ya-mei Xia, Jun-liang Chen, Xiang-wu Meng, Hao Yang, Beijing University of Posts and Telecommunications, China, Yong-sheng Huang, Hebei Polytechnic University, China

#### WCN17.3 A Novel Criterion of Subcarrier Allocation for Grouped MC-CDMA Systems

Yachen Wang, Peng Zhang, Yuan'an Liu, Beijing University of Posts and Telecommunications, China, Junshi Liu, Beijing Mobile Communications Company, China

#### WCN17.4 A Power Adjustment Scheme for Improving Outage Probability in a CDMA System

Raymond Kwan, University of Bedfordshire, UK, Cyril Leung, The University of British Columbia, Canada

# WCN-18: Physical Communications I – MIMO and OFDM

Date and Time: Wed. 22<sup>nd</sup> Aug. 14:30-16:00 Location: Maple Room

#### WCN18.1 An Adaptive LDPC-coded MIMO-OFDM System Based on Statistical Channel State Information

Binggang Huang, Yi Hui, Wenqiang Zhang, Zhijie Zhou, PLA University of Science and Technology, China

#### WCN18.2 An Improved Soft Interference Cancellation Based Combined Probability Data Association and Sphere Decoding algorithm for MIMO detection

Wen Che, Hui Zhao, Wenbo Wang, Beijing University of Posts and Telecommunications, China

## WCN18.3 MIMO-DAB/DMB Based on Differential Unitary Space-Frequency Modulation

Yanbo Wu, Jianping An, Yao Lu, Beijing Institute of Technology, China

# WCN18.4 Optimal and Suboptimal Time Domain Training Sequences for MIMO OFDM Channel Estimation

Lu Zhen, Shanghai Jiao Tong University, China, Ge Jianhua, XiDian University, China

# WCN-19: Physical Communications II – MIMO and OFDM

Date and Time: Thu. 23<sup>rd</sup> Aug. 9:00-10:30 Location: Maple Room

#### WCN19.1 Capacity Analysis for a Distributed MIMO-OFDM System in Composite Spatially Correlated Channels

Xiaolin Zhou, Zhaowei Liu, Zongxin Wang, Fudan University, China, Himal A. Suraweera, Jean Armstrong, Monash University, Australia

# WCN19.2 Selected Mapping in Correlatively Coded OFDM

Xun Yang, Jian Wang, Daoben Li, Beijing University of Posts and Telecommunications, China

# WCN19.3 Reducing the Feedback Overhead for Adaptive MIMO Multicarrier Transmission

Erlin Zeng, Shihua Zhu, Xi'an Jiao Tong University, China, Ming Xu, Panasonic R&D Center China Co., Ltd, China

### WCN19.4 Linear Transceiver Design for SINR Balancing in MIMO Downlink Channels

*M.* Codreanu, A. Tolli, M. Juntti, and M. Latva-aho, University of Oulu, Finland

### WCN-20: Physical Communications III – MIMO and OFDM Date and Time: Thu. 23<sup>rd</sup> Aug. 14:30-16:00

Location: Maple Room

**WCN20.1** Adaptive Frame Structure Design and Adaptation Control Mechanism in MIMO-OFDM Systems Jing Zhang, Xing Fu, Xiaoxuan Zhu, Jin Xu, Beijing University of Posts and Telecommunications, China

### WCN20.2 Carrier Frequency Offset Estimation in MIMO OFDM Systems

Liming He, Chang'an University, China

#### WCN20.3 A MIMO Transceiver Scheme Using TR-STBC for Single-Carrier UWB Communications with Frequency Domain Equalization

Dan Wang, Ling-Ge Jiang, Chen He, Shanghai Jiao Tong University, China

# WCN20.4 Tracking Time-Variant Cluster Parameters in MIMO Channel Measurements

Nicolai Czink, Technische Universitat Wien, Austria, Ruiyuan Tian, Forschungszentrum Telekommunikation Wien, Austria, Shurjeel Wyne, Fredrik Tufvesson, Lund University, Sweden, Jukka-Pekka Nuutinen, Juha Ylitalo, Elektrobit, Finland, Andreas F. Molisch

## WCN20.5 Adaptive Subcarrier, Bit and Power Allocation for MIMO-OFDMA Systems

Yi Zhao, Lingkang Zeng, Gang Xie, Yuanan Liu, Fang Xiong, Beijing University of Posts and Telecommunications, China

#### WCN-21: Physical Communications IV – Miscellaneousness Date and Time: Fri. 24<sup>th</sup> Aug. 14:30-16:00 Location: Eton Ballroom II

# WCN21.1 The Simulation Models for Rayleigh Fading Channels

Zhinian Luo, Wenjun Zhang, Shanghai Jiao Tong University, China

WCN21.2 Performance of Multiple-Access DCSK Communication over Multi-path Fading Channels with Delay Spread

Zhibo Zhou, Tong Zhou, Jinxiang Wang, Harbin Institute of Technology, China

WCN21.3 Memory Efficient Block-Serial Architecture for Programmable, Multi-Rate Multi-Length LDPC Decoder Xiyu Zhou, Zhaoyang Zhang, Zhejiang University, China

# WCN21.4 Wideband Direction-of-Arrival Estimation Using Frequency-Domain Processing Approach

Hongxia Wang, Xianling Lu, Nanjing University of Science and Technology, China

WCN-22: Physical Communications V

#### Miscellaneousness Date and Time: Fri. 24<sup>th</sup> Aug. 16:30-18:00 Location: Eton Ballroom II

WCN22.1 A Bit-Loading Scheme for V-BLAST Systems with Improved BER Performance

Xiaolin Che, Chen He, Shanghai Jiao Tong University, China

#### WCN22.2 Hybrid OSIC/PIC detection algorithm for V-BLAST systems

Danping Li, Hailin Zhang, XiDian University, China

#### WCN22.3 Automatic Transmit Power Control of a Digital Fixed Wireless Link with Co-Channel Interference

Robert H. Morelos-Zaragoza, San Jose State University, USA, Kyoung-Whoan Suh, Kangnam University, Korea, Joo-Hwan Lee, Electronics and Telecommunications Research Institute, Korea

WCN22.4 A New Kind of Access Code with Zero Correlation Window -DBL Access Code

Hui Jiang, Xing Yang, Daoben Li, Beijing University of Posts and Telecommunications, China

WCN22.5 Design and Performance of Monobit Impulse Radio Receiver Huarui Yin, University of Science and Technology of China, China, Zhengdao Wang, Iowa State University, USA, Jun Wang, Peixia Xu, Weidong Wang

### WCN-23: Ultra Wideband Date and Time: Fri. 24<sup>th</sup> Aug. 16:30-18:00 Location: Eton Ballroom I

#### WCN23.1 Policy-based Dynamic Channel Selection Architecture for Cognitive Radio Network

Do-Hyun Na, Hao Nan, Song-Jo Yoo, Inha University, Korea

# WCN23.2 Statistical UWB Channel Model parameters estimation based on SAGE algorithm

Rachid Saadane, University Mohammed V, Morocco, Aawatif Menouni Hayar, Helmut Hofstetter, Eurecom Institute, France, Driss Aboutajdine, University Mohammed V, Morocco

#### WCN23.3 A Fast PN Code Acquisition Algorithm for DS-UWB Systems

Li-na Qi, Zong-liang Gan, Hong-bo Zhu, Nanjing University of Posts and Telecommunications, China

#### WCN23.4 A Novel Adaptive Ultra-Wideband Pulse Design Based on Cognitive Radio Theory

Liu-Lei Zhou, Hong-bo Zhu, Nanjing University of Posts and Telecommunications, China, Nai-tong Zhang, Harbin Institute of Technology, China

### Optical Communications and Networking Symposium<sup>2</sup>

### **Symposium Chairs:**

Indra Widjaja

Bell Labs, Alcatel-Lucent Yikai Su Shanghai Jiao Tong University Pin-Han Ho University of Waterloo

#### Sessions:

### OCN-01: Traffic Grooming and Traffic Engineering Date and Time: Wed. 22<sup>nd</sup> Aug. 16:30-18:00 Location: Maple Room

### OCN01.1 A novel optical Ethernet network analyzer transmitting self-similar traffic

Xiaona Li, Hongxiang Wang, Yuefeng Ji, Beijing University of Posts and Telecommunications, China

# OCN01.2 Graph Partition Based Traffic Balance in Industrial Network

Feng Li, Yanjun Xiao, Qizhi Zhang, Shanghai Jiao Tong University, China

#### **OCN01.3** Test Tool Suite for ASON Signaling

Fang Liu, Wenhua Jiao, Zhiyu Zhou, Caixia Chi, Ludi Zheng, Zhiqiang Yu, Bell Labs Research China, Alcatel-Lucent Technologies

# OCN01.4 RWER TCP throughput enhancement based on a GE-PON system

Mingsen Xu, Hui Li, Yuefeng Ji, Beijing University of Posts and Telecommunications, China

### OCN-02: Routing and Wavelength Assignment Date and Time: Thu. 23<sup>rd</sup> Aug. 11:00-12:30 Location: Maple Room

#### OCN02.1 TCP Performance Experiment over High Bandwidth Delay Product OBS Network

Shuri Cai, Jian Wu, Jintong Lin, Beijing University of Posts and Telecommunications, China

OCN02.2 Minimizing reconfiguration times of Optical Cross-Connects in distributed lightpath establishment Lihua Lu, Qingji Zeng, Yanna Hao, Shanghai Jiao Tong University, China

#### OCN02.3 The Selection of Logical Rings for Packet Transmissions in WDM Optical Star Networks

JungChun Liu, Hann-Jang Ho, SingLing Lee, National Chung Cheng University, Taiwan, China

#### OCN02.4 BER and Latency Constrained QoS-Aware Distributed Routing for All-optical Networks Jun He, Maite Brandt-Pearce, Suresh Subramaniam, University of Virginia, USA

# OCN-03: Optical Network Protection and Restoration

Date and Time: Thu. 23<sup>rd</sup> Aug. 16:30-18:00 Location: Maple Room

OCN03.1 (Invited) Optimized Designs of p-Cycles for Survivable Multicast Sessions in Optical WDM Networks (Invited)

Wende Zhong, Feng Zhang, Yaohui Jin, Nanyang Technological University, Singapore

#### OCN03.2 Span Restoration in Optical Networks with Limited Wavelength Conversion

Sarah Ruepp, Jakob Buron, Nicola Andriolli, Henrik Wessing, Technical University of Denmark, Denmark

### **OCN03.3 Survivability Characterization of PON**

Shasha Jin, Hui Li, Yuefeng Ji, Beijing University of Posts and Telecommunications, China

# OCN-04: System Performance of Optical Networks

Date and Time: Fri. 24<sup>th</sup> Aug. 11:00-12:30 Location: Maple Room

#### **OCN04.1 Wavelength Tunable Optical Burst Ring Network Test-bed and Experimental Research** *Gang Wang, Hongxiang Wang, Yuefeng Ji, Beijing University of Posts and Telecommunications, China*

OCN04.2 Performance Analyses of Novel Prime Code Family in Coherent Optical CDMA Network Mohammad M. Karbassian, Fulei Liu, H. Ghafouri-Shiraz, The University of Birmingham, UK

 $<sup>^2</sup>$  The presentation time for each paper is 22 minutes (18 min. presentation + 4 min. Q &A)

### Frontiers on Communications and Networking Symposium<sup>3</sup>

#### **Symposium Chairs:**

Zhihua Guo

Lenovo Jun Zheng University of Ottawa Cheng Li Memorial University of Newfoundland

#### Sessions:

### FCN-01: Detection and Measurement Date and Time: Wed. 22<sup>nd</sup> Aug. 14:30-16:00 Location: Cedar Room

FCN01.1 Agent-based Distributed Cooperative Intrusion Detection System

Zhaowen Lin and Yan Ma, Beijing University of Posts and Telecommunications, China

# FCN01.2 Signal Measurement Method in Connected Mode for TDD Multi-mode Terminals

Yunhui Liu, Xiaolin Zhang, and Yanping Li, Lenovo China R&D Shanghai Branch, China

# FCN01.3 Design and Implementation of a Distributed System Level Evaluation Platform for Mobile WiMAX

Jian Zhang, Yu Zhao, Jian Li, Jian Zhang, and Xiaodong Zhang, Shanghai Institute of Microsystem and Information Technology, China Academy of Sciences, China

**FCN01.4 Evolution of Traffic Patterns in Telecommunication Systems** *Poul E. Heegaard, Norwegian University of Science and* 

Technology (NTNU), Norway

### FCN-02: Resource Allocation Date and Time: Thu. 23<sup>rd</sup> Aug. 9:00-10:30 Location: Cedar Room

#### FCN02.1 A New Preemption Algorithm for Diffserv-Aware Traffic Engineering in MPLS Networks

Mingying Zhu, Wu Ye, Suili Feng, and Xiaoming He, South China University of Technology, China

# FCN02.2 Dual Approach for Multi-Path MAXMIM Rate Allocation

Pohao Huang, Wei K. Tsai, and Dan-Han Tsai, University of California in Irvine, USA

FCN02.3 The Research of Load Balance Improvement in Industrial Networks

Feng Li, Shanghai Jiao Tong University, China; Yanjun Xiao, Hebei University of Technology, China; Qizhi Zhang and Weidong Zhang, Shanghai Jiao Tong University, China

### FCN02.4 A Novel Search Algorithm Utilizing High Degree Nodes

Fuyong Yuan, Jian Liu, Yulian Zhang, and Chunxia Yin, Yanshan University, China

FCN-03: P2P Networks Date and Time: Thu. 23<sup>rd</sup> Aug. 11:00-12:30 Location: Cedar Room

# FCN03.1 BGKR: A Novel P2P Network Based on Generalized Kautz and Ring with Constant Congestion

Jiguo Yu, Jingjing Song, Wenjun Liu and Baoxiang Cao, Qufu Normal University, China

# FCN03.2 Detecting and Solving Links Overlap to Make Structured P2P Network Topology-Aware

Jing Yu, Xiaozhuo Gu, and Binqiang Wang, National Digital Switching System Engineering & Technological R&D Center, China

# FCN03.3 Proposition and Provement of A TCP Feature of P2P Traffic- An Example of BitTorrent and Emule

Li-Juan Zhou, Zhi-Tang Li, and Tu Hao, Huazhong University of Science and Technology, China

#### FCN03.4 Study on a Two-dimensional Chord Model Based on Mobile Cellular Networks

Dongyao Zhou, Meina Song, and Junde Song, Beijing University of Posts and Telecommunications, China

### FCN-04: Routing and Relaying Protocols Date and Time: Thu. 23<sup>rd</sup> Aug. 14:30-16:00 Location: Cedar Room

#### FCN04.1 Shifting the Link Weights in Networks

Huijuan Wang and Piet Van Mieghem, Delft University of Technology, The Netherlands

# FCN04.2 Impact of Link Weight Ranges on OSPF Weight Solutions

Yong Zuo and Jonathan Pitts, University of London, UK

# FCN04.3 A Game Theory and BCC Based Flexible QoS Multicast Routing Scheme

Xingwei Wang, Lin Han, and Min Huang, Northeastern University, China

# FCN04.4 A High Performance ARP Lookup System for Gigabit Ethernet

Yun Qin, Yachao Zhou, and Bin Liu, Tsinghua University, China

FCN-05: Admission and Congestion Control Date and Time: Thu. 23<sup>rd</sup> Aug. 16:30-18:00

 $<sup>^{3}</sup>$  The presentation time for each paper is 22 minutes (18 min. presentation + 4 min. Q &A)

#### **Location: Cedar Room**

FCN05.1 A Dynamically Scheduling Policy with A Greedy Admission Control Algorithm Based on the Customer (Im)Patience

Wang Kaixi and Yang Fangchun, Beijing University of Posts and Telecommunications, China

### FCN05.2 The Research of a New Active Congestion Control Algorithm

Liping Zhou and Zhishu Li, Sichuan University, China; Qiming Lei, Leshan Teacher University, China; Jiancheng Ni and Qing Li, Sichuan University, China

#### FCN05.3 Reasoner-Based Flow Context Aggregation

Roel Ocampo, University of the Philippines, Philippines; Alex Galis and Chris Todd, University College London, UK; Hermann De Meer, University of Passau, Passau, Germany

FCN05.4 On-line Network Resource Consumption Prediction with Confidence

Zhiyuan Luo and Alex Gammerman, University of London, UK

### FCN-06: Cognitive Communications and Cooperative Diversity Date and Time: Fri. 24<sup>th</sup> Aug. 9:00-10:30 Location: Maple Room

# FCN06.1 Weighted-Collaborative Spectrum Sensing in Cognitive Radio

Xiaoge Huang, Ning Han, Guanbo Zheng, Sunghwan Sohn, and Jaemoung Kim, Inha University, Korea

#### FCN06.2 Fair Adaptive Resource Allocation for Multi-User OFDM Cognitive Radio Systems

Tao Qin and Cyril Leung, University of British Columbia, Canada

#### FCN06.3 Differential Super-Orthogonal Space-time Trellis Coded Cooperative Diversity System Without CSI

Zhu Yijun, Hu Hanying, Liang Jinshan, and Duan Zhiying, Information Engineering University, China

FCN06.4 On Diversity of Cooperative Relaying Protocols

Satya Prakash Ponnaluri and Stephen G. Wilson, University of Virginia, USA

#### FCN-07: Topics in Communications and Networking I Date and Time: Fri. 24<sup>th</sup> Aug. 14:30-16:00 Location: Maple Room

#### FCN07.1 Multi-path Self-routing Switching Structure by Interconnection of Multistage Sorting Concentrators Hui Li, Wei He, and Hui-yao An, Shenzhen Graduate School

of Peking University, China; Peng Yi, and Bin-qiang Wang,

Information Engineering University, China; Xi Chen, Institute. of Microelectronics, Chinese Academy of Sciences, China

# FCN07.2 A Sliding-Window Based Efficient Forwarding Mechanism in Shared Memory Switch Fabric

Yang Wang, Huazhong University of Science and Technology, China; Yi-Chun Zhan and Shao-Hua Yu, Wuhan Research Institute of Posts and Telecommunication, China

# FCN07.3 Constructing the Overlay Network by Tuning Link Weights

Huijuan Wang and Piet Van Mieghem, Delft University of Technology, The Netherlands

#### FCN-08: Topics in Communications and Networking II Date and Time: Fri. 24<sup>th</sup> Aug. 16:30-18:00 Location: Maple Room

# FCN08.1 ISI Cancellation for Timing Hopping Ultra Wideband Systems

Lina Qi and Hongbo Zhu, Nanjing University of Posts and Telecommunications, China

# FCN08.2 The prototypical application of cybernetic systems in remote services for buildings and civil infrastructures

George Z. Chen, Liverpool John Moores University, UK

## FCN08.3 Research of Reconfigurable Charging on Adaptive Service Platform for NGN

Lingjiao Wang, Zhengkun Mi, Rongqun Peng, and Minghai Xu, Nanjing University of Posts and Telecommunications, China

### Networking Security and Information Assurance<sup>4</sup>

#### **Symposium Chairs:**

Zhenfu Cao

Shanghai Jiao Tong University Peter Stavroulakis Technical University of Crete Radha Poovendran University of Washington

#### Sessions:

NS-01: Security of Wireless Sensor and Ad Hoc Networks Date and Time: Wed. 22<sup>nd</sup> Aug. 16:30-18:00 Location: Cedar Room

# NS01.1 Location-based Secure and Energy Efficient data aggregation in Wireless Sensor Networks

*Cungang Yang, Jie Xiao, Ryerson University, Canada, Chang. N. Zhang, University of Regina, Canada* 

NS01.2 A New Threshold Ring Signature for Ad-Hoc Group

Junfang Xiao, Guihua Zeng, Shanghai Jiao Tong University, China

NS01.3 Anomaly Detection Based on Data-Mining for Routing Attacks in Wireless Sensor Networks

Song Jian-Hua, Ma Chuan-Xiang, Hubei University, China

#### NS01.4 A Key establishment Scheme for Providing Secure Multicasting over Bluetooth Scatternets

Subir Biswas, Syed Rehan Afzal, Jong-bin Koh, Mustafa Hasan, Gunhee Lee, Dong-kyoo Kim, Ajou University, Korea

### NS-02: Security Engineering Date and Time: Thu. 23<sup>rd</sup> Aug. 9:00-10:30 Location: Ebony Room

NS02.1 The Research of a Cooperative Model Intrusion Detection System

Qiang Zhu, Zhejiang Institute of Communications and Media, Li Gao, Huazhong Normal University, China

# NS02.2 A low-cost and high efficiency architecture of AES crypto-engine

Yan Qing Zhong, Beijing Normal University, China, Jian Ming Wang, Zhen Feng Zhao, Da Yong Yu, Liang Li, Vinno Technologies Inc.

# NS02.3 An Unsupervised Anomaly Detection Approach using Subtractive Clustering and Hidden Markov Model

Chun Yang, Feiqi Deng, Haidong Yang, South China University of Technology, China

### NS02.4 Measuring Intrusion Effects for Rational Response: A State-based Approach

Zonghua Zhang, Xiaodong Lin, Pin-Han Ho, University of Waterloo, Canada

#### NS-03: Security Protocols Date and Time: Thu. 23<sup>rd</sup> Aug. 11:00-12:30 Location: Ebony Room

# NS03.1 Provably Secure Blind ID-Based Strong Designated Verifier Signature Scheme

Ning Zhang, Qiaoyan Wen, Beijing University of Posts and Telecommunications, China

# NS03.2 Safeguarding Against Sybil Attacks via Social Networks and Multipath Routing

Chittaranjan Hota, Srikanth M.S.V, Birla Institute of Technology and Science, Antti Ylä-Jääski, Janne Lindqvist, Kristiina Karvonen, Helsinki University of Technology, Finland

NS03.3 On the Security of three Versions of the WAI Protocol in Chinese WLAN Implementation Plan Qiang Tang, University of London, Ecole Normale Superieure

NS03.4 OPNET Performance Comparisons between SAODV & AODV

M. F. Juwad, H. S. Al-Raweshidy, Brunel University, UK

### NS-04: Digital Watermarking Date and Time: Thu. 23<sup>rd</sup> Aug. 14:30-16:00 Location: Ebony Room

# NS04.1 Rate Controlled Video Watermarking Based on Optimal DEM Codewords

Xiaoyan Liu, Lihong Ma, Hanqing Lu, Kang Cai, Institute of Automation, Chinese Academy of Sciences, China

# NS04.2 Subdivision Surface Watermarking Algorithm Based on Mesh

Quan Liu, Jing Wang, Wuhan University of Technology, China

# NS04.3 A FDCT-based Asymmetric Watermarking Scheme

Jun Wang, Nanjing University, Wei Zhang, Shanghai Jiao Tong University, Zheng-kun Mi, Nanjing University of Posts

<sup>&</sup>lt;sup>4</sup> The presentation time for each paper is 22 minutes (18 min. presentation + 4 min. Q &A)

and Telecommunications, Jun-yuan Xie, Nanjing University, China

NS04.4 An Efficient Approach to Integrate Watermarking with Speech Coding

Ning Chen, Jie Zhu, Shanghai Jiao Tong University, China

#### NS-05: Security of Ad Hoc Networks Date and Time: Thu. 23<sup>rd</sup> Aug. 16:30-18:00 Location: Ebony Room

# NS05.1 A Lightweight Secure iSCSI-based Remote Storage Service for Mobile Devices

ErnYu Lee, YuShu They, HyoTaek Lim, HoonJae Lee, Dongseo University, Korea

# NS05.2 A New Solution for Resisting Gray Hole Attack in Mobile Ad-Hoc Networks

Wei Chen, Xiang Long, Yuebin Bai, Xiaopeng Gao, Beihang University, China

#### NS05.3 An Enhanced Approach to Providing Secure Pointto-Multipoint Communication in Bluetooth Piconets

Subir Biswas, Syed Rehan Afzal, Jong-bin Koh, Mustafa Hasan, Gunhee Lee, Dong-kyoo Kim, Ajou University, Korea

### NS05.4 Intrusion Detection Based on Improved Fuzzy Cmeans Algorithm

Min Yao, Wei Jiang, Jun Yan, Wuhan University, China

### NS-06: Security in Large Scale Environments Date and Time: Fri. 24<sup>th</sup> Aug. 9:00-10:30 Location: Ebony Room

#### NS06.1 Intrusion Alert Correlation Based on D-S Evidence Theory

Mei Haibin, Gong Jian, Southeast University, China

# NS06.2 Security Measures for Convergence of Broadcasting and Communication Service in the BcN

DongHoon Shin, Ho-Seong Kim, Gang-Shin Lee, Korea Information Security Agency, Yunmook Nah, Dankook University, Korea

### NS06.3 Across-Domain Deterministic Packet Marking for IP Traceback

Guang Jin, Jiangang Yang, Wei Wei, Yabo Dong, Zhejing University, China

# NS06.4 A Novel Broadcast Encryption Scheme Based on SD Scheme Reconstruction

Yichun Zhang, Cheng Yang, Jianbo Liu, Jianzeng Li, Communication University of China, China

# NS-07: Security Attacks and Vulnerability Analysis - I

### Date and Time: Fri. 24<sup>th</sup> Aug. 11:00-12:30 Location: Ebony Room

NS07.1 Resist Network DDoS Attacks by Packet Asymmetry Path Marking

Guang Jin, Jiangang Yang, Wei Wei, Yabo Dong, Zhejiang University, China

# NS07.2 Detecting DDoS That Mimic FCE with Information Theory

AnMing Wei, ShiDuan Cheng, Le Tian, HongBo Wang, Yu Lin, Beijing University of Posts and Telecommunications, China

**NS07.3 A Robust Scheme to Detect SYN Flooding Attacks** *Changhua Sun, Jindou Fan, Bin Liu, Tsinghua University, China* 

#### NS-08: Security Attacks and Vulnerability Analysis - II Date and Time: Fri. 24<sup>th</sup> Aug. 14:30-16:00 Location: Ebony Room

# NS08.1 Using Network Attack Graphs to Predicate the Future Attacks

Jie Lei, Zhi-tang Li, Huazhong University of Science and Technology, China

#### NS08.2 A First Step to Provable Security in Block Ciphers against Side Channel Attacks Wei Li, Dawu Gu, Shanghai Jiao Tong University, China

## NS08.3 Blind detection of LSB watermarking at low embedding rate in grayscale images

Lingna Hu, Lingge Jiang, Shanghai Jiao Tong University, China

### NS-09: Distributed Security Systems Date and Time: Fri. 24<sup>th</sup> Aug. 16:30-18:00 Location: Ebony Room

# NS09.1 A Logic Predicate Based Automated Trust Negotiation Model

Zhensong Liao, Hai Jin, Deqing Zou, Huazhong University of Science and Technology, China

#### **NS09.2 A Privacy Enabled Service Authorization Based on** a User-centric Virtual Identity Management Systems Zhikui Chen, University of Stuttgart, Germany

#### NS09.3 Designing Security Architecture for a P2P Video Conference System

Fuwen Liu, Hartmut Koenig, Brandenburg University of Technology Cottbus, Germany

### **Advances in Internet<sup>5</sup>**

#### **Symposium Chairs:**

Alex Galis University College London Jiannong Cao Hong Kong Polytechnic University Junzhong Gu East China Normal University Minglu Li Shanghai Jiao Tong University

#### Sessions:

### IN-01: Middleware, Services & Interfaces - I Date and Time: Wed. 22<sup>nd</sup> Aug. 14:30-16:00 Location: Ebony Room

IN01.1 A Java-based Middleware for Enterprise Application Integration

Gang Yao, Ronnie Cheung, Hong Kong Polytechnic University, Hong Kong, China

IN01.2 A Semantic Modeling and Verification Approach of Workflow Process Based on CSP

Lihua Guo, Zhao Lu, Junzhong Gu, East China Normal University, China

#### IN01.3 HCAM: A Context-aware Middleware to Support Logic-based Context Conflict Detection

Ruonan Rao, Guangchang Ye, Jinyuan You, Shanghai Jiao Tong University, China

## IN01.4 Constructing Interest-Oriented Search Union of Web Servers based on P2P Overlay

Feng Hong, Ocean University of China, China, Minglu Li, Jiadi Yu, Shanghai Jiao Tong University, China, Zhongwen Guo, Ocean University of China, China

### IN-02: Middleware, Service& Interfaces - II Date and Time: Wed. 22<sup>nd</sup> Aug. 16:30-18:00 Location: Ebony Room

# IN02.1 Flexible Services Composition based on ECA Rule in Grid

Yi Wang, Minglu Li, Jian Cao, Feilong Tang, Shanghai Jiao Tong University, China

IN02.2 Optimized Traveling Web Service Orchestration based on Spatio-temporal Data Model & Clustering

Yang Hao, Chen Junliang, Meng Xiangwu, Xia Yamei, Beijing University of Posts and Telecommunications China, Yu Hang, Zhongneng Power-Tech Development Co., Ltd., China

## IN02.3 Flexible and Programmable Ambient Network Service Interface

Balos K. Zielinski K., Szymacha R., Szydlo T. University of Science and Technology, Poland, Jean K. Lai Z., University College London, UK

### IN-03: Security & Compensation Date and Time: Thu. 23<sup>rd</sup> Aug. 11:00-12:30 Location: Function Room

# IN03.1 Finding Optimal Marking Probability to Reduce Convergence Time

Miao Ma, Danny H. K. Tsang, The Hong Kong University of Science and Technology, Hong Kong, China

#### IN03.2 CAGE: Clique-based Assignment of Group kEy

Avinash Srinivasan, Feng Li, Jie Wu, Florida Atlantic University, USA, Minglu Li, Shanghai Jiao Tong University, China

# IN03.3 Exploring Possible Strategies for Competitions between Autonomous Systems

Lei Li, Changjia Chen, Beijing Jiao Tong University, China

### IN-04: Congestion Control Date and Time: Fri. 24<sup>th</sup> Aug. 9:00-10:30 Location: Cedar Room

#### IN04.1 Utilizing TTL to enhance TCP Fairness

Hangxing Wu, Northwestern Polytechnical University, China, Fengyuan Ren, Tsinghua University, China, Dejun Mu, Wenping Pan, Northwestern Polytechnical University, China

#### IN04.2 The Research of Active Network Congestion Control Algorithm Based on Operational Data

Jingyang Wang, Xiaohong Wang, Huiyong Wang, Min Huang, Lina Ma, Zhengtao Pan, Hebei University of Science and Technology, China

### IN04.3 Online Bicriteria Load Balancing for Distributed File Servers

Savio Tse, Bilkent University, Turkey

#### IN04.4 Brownian Motion Based Queuing Analysis and Bandwidth Prediction for Aggregated Domain in Backbone Networks

Wang Yang, Huazhong University of Science and Technology, China, Zhan Yi-chun, Yu Shao-Hua, Wuhan Research Institute of Posts and Telecommunications, China

IN-05: Routing & Traffic Engineering Date and Time: Fri. 24<sup>th</sup> Aug. 11:00-12:30

 $<sup>^{5}</sup>$  The presentation time for each paper is 22 minutes (18 min. presentation + 4 min. Q &A)

#### **Location: Cedar Room**

#### IN05.1 An Cross-Entropy Algorithm for multi-Constraints QoS Multicast Routing

Liansheng Ge, Gang Wang, Zhao Shi, Shandong University, China

### IN05.2 MARP: A Multi-Agent Routing Protocol for Adhoc Network

Mohammad Taghi Kheirabadi, Hossein Mohammadi, Islamic Azad University, Iran

# IN05.3 Internet Traffic Classification using Machine Learning

Li Jun, Zhang Shunyi, Lu Yanqing, Zhang Zailong, Nanjing University of Posts and Telecommunications, China

## IN05.4 Reconfigure Feasibility Analyzing and Implementation of Embedded Protocol Stack

Lihua Song, Xiaotong Zhang, Qin Wang, Yanfei Guo, University of Science and Technology Beijing, China

# In05.5 An Optimal Bandwidth Allocation Algorithm For File Distribution Network

*Ou Qi, Danny H. K. Tsang, The Kong Kong University of Science and Technology, Kong Kong, China* 

### IN-06: Peer-to-Peer Networks Date and Time: Fri. 24<sup>th</sup> Aug. 14:30-16:00 Location: Cedar Room

IN06.1 Debt-Based File Exchange Mechanism in Peer-to-Peer Networks

Kun Yu, Yun-yang Yan, Huaiyin Institute of Technology, China, Hai-bin Mei, Sheng-hui Zhao, Southeast University, China

#### IN06.2 TsTIT: A Time-sensitive Two-level Trust Model Based on Reputation for Large-scale Peer-to-Peer Networks

Yu Jin, Zhimin Gu, Beijing Institute of Technology, China, Zhijie Ban, Inner Mongolia University, China

# IN06.3 Anne - A Fair Service Capacity Management for P2P Overlay Networks

Huey-Ing Liu, Che-Jung Hsu, Fu Jen Catholic University, Taiwan, China

**IN06.4 sStream: Peer-to-Peer Live Streaming with Efficient User Authentication and Key Management** *Xuening Liu, Hao Yin, Chuang Lin, Tsinghua University, China* 

IN-07: Quality of Service Date and Time: Fri. 24<sup>th</sup> Aug. 16:30-18:40 Location: Cedar Room

### IN07.1 Network Calculus Approach to Router Modeling with External Measurements

Astrid Undheim, Yuming Jiang, Peder J. Emstad, Norwegian University of Science and Technology, Norway

# **IN07.2** Policy based resource management for QoS aware application in heterogeneous network environments

Dir Hetzer, T-system International GmBH, Germany, Ilka Miloucheva, Karl Jonas, Christian Niephaus, Fraunhofer Institute, Germany

# IN07.3 Optimizing Internetworking Traffic Based on BitTorrent Network

Lei Zhang, Zheng Hu, Beijing University of Posts and Telecommunications, China, Wei Liu, Shanghai Normal University Tianhua College, China

### **Communication Theory and Signal Processing for Communications**<sup>6</sup>

#### **Symposium Chairs:**

**Thomas Kaiser** 

Leibniz University of Hannover Zongxin Wang Fudan University Mischa Dohler France Telecom

#### Sessions:

#### SP-01: MIMO

Date and Time: Wed. 22<sup>nd</sup> Aug. 14:30-16:00 Location: Function Room

SP01.1 Low Complexity Lattice Reduction Aided MMSE Precoding Design for MIMO Systems

Feng Liu, Lingge Jiang, and Chen He, Shanghai Jiaotong University, China

## SP01.2 A Simplified Adaptive Modulation Scheme for MIMO Spatial Multiplexing Systems

Xiaolin Che, Chen He, and Dan Wang, Shanghai Jiaotong University, China

# SP01.3 Free Space Optical MIMO System Using PPM Modulation and an Optical Amplifier

Qianling Cao, Maite Brandt-Pearce, and Stephen Wilson, University of Virginia, USA

# SP01.4 Linear Multiuser MIMO Transceiver Optimization in Cooperative Networks

Antti Tölli, Marian Codreanu, and Markku Juntti, Centre for Wireless Communications, University of Oulu, Finland

# SP-02: OFDM, Multicarrier and Multiuser Systems

### Date and Time: Wed. 22<sup>nd</sup> Aug. 16:30-18:00 Location: Function Room

# SP02.1 A Blind Post-FFT User-by-user Beamforming Algorithm for Multiuser OFDM Systems

Xiang Chen (1), Chong-Yung Chi (2), Cheng-Wei Lin (2), Wing-Kin Ma (2), Shidong Zhou (1), and Yan Yao (1), (1) Tsinghua University, China; (2) National Tsing Hua University, Taiwan, China

#### SP02.2 A Novel Multi-Carrier System Based on Maximum-Likelihood Sequence Detection in Frequency Domain

Jing Wang and Daoben Li, Beijing University of Posts and Telecommunications, China

#### SP02.3 An Adaptive User Selection Algorithm for Multiuser MISO Downlink Systems

Rui Xing, Ju Liu, and Hongji Xu, Shandong University, China

### SP02.4 Adaptive Rate and Power Allocation Schemes for OFDM/SDMA Systems

Behrouz Maham, Esrafil Jedari, and Alireza Enayati, Communication Technologies Institute, Iran Telecommunication Research Center, Iran

### SP-03: Receiver Detection Technology Date and Time: Thu. 23<sup>rd</sup> Aug. 9:00-10:30 Location: Function Room

SP03.1 A Simple Receive Antenna Selection Algorithm for Maximizing Channel Capacity Ju Liu, Rui Xing, and Peng Lan, Shandong University, China

#### SP03.2 Phase Estimation Algorithm for SFH/PSK Signals Using Few Reference Symbols

GanHua Ye and RuiMin Lu, 63th Research Institute of PLA, China

# SP03.3 Real-time GPS Software Receiver Correlator Design

Tian Jin, HongLei Qin, JunJie Zhu, and Yang Liu, BeiHang University, China

# SP03.4 A Novel Echo Detection Scheme Based on Autocorrelation of Power Cepstrum

Ning Chen and Jie Zhu, Shanghai Jiaotong University, China

# SP03.5 Detection Guided Fractionally Spaced FIR Equalizer

Yan Jennifer Wu (1) and John Homer (2), (1) Canberra Research Laboratory, National ICT Australia & RSISE, the Australian National University, Australia; (2) University of Queensland, Australia

### SP-04: Diversity and Cooperation Date and Time: Thu. 23<sup>rd</sup> Aug. 14:30-16:00 Location: Function Room

#### SP04.1 An Interleaver-based Cooperation Diversity Protocol for Multiple-Relay Networks

Zhaoxi Fang, Liangbin Li, and Zongxin Wang, Fudan University, China

SP04.2 Performance Analysis of Switch-and-Stay Transmit Diversity with Feedback Errors

 $<sup>^{6}</sup>$  The presentation time for each paper is 22 minutes (18 min. presentation + 4 min. Q &A)

Andreas Mueller and Joachim Speidel, Institute of Telecommunications, University of Stuttgart, Germany

# SP04.3 Orthogonal Space-Time Block Codes with Receive Antenna Selection: Capacity and SER Analysis

Andreas Mueller and Joachim Speidel, Institute of Telecommunications, University of Stuttgart, Germany

#### SP04.4 An Efficient Resource-Allocation Scheme for BER Performance Improvement in Multicarrier Cooperative Systems

Hangguan Shan, Hao Wang, and Zongxin Wang, Fudan University, China

**SP04.5 A Single-Antenna Dual-Carrier Selection Technique for Frequency Selective Fading Channels** *Jingli Li and Xiangqian Liu, University of Louisville, USA* 

### SP-05: Error Control Coding and ARQ Date and Time: Thu. 23<sup>rd</sup> Aug. 16:30-18:00 Location: Function Room

#### SP05.1 Isomorphic Constructions of Tail-Biting Trellises for Linear Block Codes

Jianqin Zhou (1) and Tomoaki Ohtsuki(2), (1) Anhui University of Technology, China; (2) Keio University, Japan

# SP05.2 Lowering the Error Floor of LDPC Codes by a Two-stage Hybrid Decoding Algorithm

Yueguang Bian, Youzheng Wang, and Jing Wang, Tsinghua University, China

# SP05.3 Combined Decoding with Phase Inversion for ARQ Systems

Zhenchao Wang, Wenling Xue, and Fang Wang, Hebei University, China

#### SP05.4 An Accurate HARQ Scheme for LDPC

Xuehua Li (1), Zhensong Li (2), and Yiqing Cao (2), (1) Beijing Information Technology Institute, China; (2) Beijing University of Posts & Telecommunications, China

# SP05.5 A Fast Decoding Algorithm for Non-orthogonal Frequency Division Multiplexing Signals

Xing Yang, Wenbao Ai, Tianping Shuai, and Daoben Li, Beijing University of Posts and Telecommunications, China

### SP-06: Channel Estimation and Modeling Date and Time: Fri. 24<sup>th</sup> Aug. 9:00-10:30 Location: Function Room

# SP06.1 The Validation of the Novel DVB-H Radio Channel Models

Roope Parviainen (1), Heidi Himmanen(2), Jukka Rinne (3), Pekka H. K. Talmola(4), and Jukka Henriksson (4), (1) Elektrobit, Finland; (2) University of Turku, Finland; (3) Tampere University of Technology, Finland; (4) Nokia, Finland

#### SP06.2 A Novel Fading Amplitude Model and Performance Analysis of Diversity Combining Schemes

Pavel Loskot (1) and Norman C. Beaulieu (2), (1) University of Wales Swansea, United Kingdom; (2) University of Alberta, Canada

### SP06.3 Iterative SNR Estimation Using A Priori Information

Yuanfei Nie, Jianhua Ge, and Yong Wang, State Key Lab of Integrated Service Networks, Xidian University, China

#### SP06.4 A Novel Parameter Estimation Method of Alphastable Distribution Based on Extreme Value

Li Li, Li Yu, Guangxi Zhu, and Xuebing Pei, Huazhong University of Science & Technology, China

### SP-07: Signal Processing for UWB Date and Time: Fri. 24<sup>th</sup> Aug. 11:00-12:30 Location: Function Room

#### SP7.1 A Bi-directional Adaptive Interpolating Multiuser Detector for Impulse Radio Systems

Lin Zheng, Hongbing Qiu, Shan Ouyang, and Jiming Lin, Guilin University of Electronic Technology, China

# SP7.2 A Novel Two-Step Search Scheme for IR-UWB in Multipath Channels

Yanbo Wang and Shiju Li, Zhejiang University, China

## SP7.3 Iterative Channel Estimation for Pulse-Based UWB Wireless Communications

Dan Wang (1), Lei Yang (2), Ling-Ge Jiang (1), and Chen He (1), (1)Shanghai Jiaotong University, China; (2) Henan University of Science and Technology, China

# SP-08: Speech, Video and Image Signal Processing

Date and Time: Fri. 24<sup>th</sup> Aug. 14:30-16:00 Location: Function Room

#### SP08.1 A Robust Visual Feature Extraction Based BTSM-LDA FOR Audio-Visual Speech Recognition

Guoyun Lv (1), Rongchun Zhao (1), Dongmei Jiang (1), Yan Li (1), and H. Sahli (2), (1) Northwestern Polytechnical University, China; (2) Vrije Universiteit Brussel, Belgium

## SP08.2 A Natural Chinese Speech Driven Mouth Animation System

Ming Xu, Jianjun Ouyang, and Yunsen Huang, Shenzhen University, China

SP08.3 Effective Error Concealment For Real-time High Definition Video Delivered over IP Network Qingguo Zhao, Chongrong Li, Huaxia Rui, and Le Zhang, Tsinghua University, China

# SP08.4 Performance Enhancement and Analysis of an Adaptive Median Filter

Yanming Zhao, Dongmei L, and Zhaohui Li, Communication University of China, China

### SP-09: Advance Signal Processing Algorithms Date and Time: Fri. 24<sup>th</sup> Aug. 16:30-18:00 Location: Function Room

SP09.1 An Image Filters Algorithm Using Level Set Based on Discontinue PDE

Jinsheng Xiao (1), Benshun Yi (1), Yuan Yao (2), and Guixiang Chen (1), (1) Wuhan University, China; (2) Laval University, Canada

SP09.2 Semi-Data-Aided Frequency Estimation Algorithm for BPSK Burst Transmissions

Yunpeng Hu, Hongyi Yu, and Hanying Hu, Zhengzhou Information Science and Technology Institute, China

#### SP09.3 A DOA Estimation Algorithm of Acoustic Sources Based on Wavefield Decomposition Using UCAs

Cheng Zhang, Kean Chen, and Shenggang Yan, Northwestern Polytechnical University, China

#### SP09.4 The Modification of Canny Operator for Fiber Cross-sectional Processing

Suping Yu, Peifeng Zeng, Xiongying Wu, and Jianping Chen, Shanghai Jiaotong University, China

### **VENUE AND HOTELS**

### THE ETON HOTEL SHANGHAI

The Eton Hotel, Shanghai is an international Deluxe Business Hotel, strategically located in the heart of Lujiazui Finance and Trade Zone in Pudong. the hotel has 462 luxuriously appointed rooms, gourmet cuisine created by international Master Chefs, Conference and Banquet facilities that can accommodate up to 500 guests. Along with our indoor pool, gym and spa. The Eton Hotel is the perfect place for the disceming business guests and leisure travelers alike.



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