





# The 7th IEEE International Conference on Wireless and Mobile Computing, Networking and Communications

## WiMOB 2011

October 10 -12, 2011 Shanghai, China

### WiMOB 2011 Overview Schedule

	10 October (Mon)		11 October (Tue)		12 October (Wed)	
08:00 - 09:00	Welcome Reception		Welcome Reception		Welcome Reception	
09:00 - 10:00	PEMOS Session 1	S1: Wireless Communication	Keynote Speaker: Dr. Yang Ganghua <i>The Challenge and Potential Solution of Mobile Access Network</i>		Keynote Speaker: Prof. Hsiao-Hwa Chen <i>The Next Generation CDMA Technology - its Opportunities and Challenges</i>	
10:00 - 10:30	Coffee Break					
10:30 - 12:30	PEMOS Session 2	S2: Ubiquitous Computing, Services and Application	TS1: Vehicular Ad Hoc Networks	TS2: Performance Analysis	TS7: Cooperative and Network Connectivity	TS8: OFDM System
12:30 - 14:00	Lunch					
14:00 - 16:00	WiTRUE Keynote	S3: Mobile Networking, Mobility and Nomadicity	TS3: Routing	TS4: Security and Privacy	TS9: Resource Allocation	TS10: Mobile Applications
	Start at 15:00 WiTRUE (Part A)					
16:00 - 16:30	Coffee Break					
16:30 - 18:00	WiTRUE (Part B) End at 17:30		TS5: Localization & time synchronization	TS6: MIMO	TS11: Coding Techniques	TS12: Routing in Wireless Networks
Evening	Start at 19:00 Cocktail		Start at 19:00 Gala Dinner			

## Tuesday, October 11

09:00 – 10:00

*Venue: Kapok room*

Chair: Prof. Abderrahim Benslimane (University of Avignon, France)

### Keynote 1

**The Challenge and Potential Solution of Mobile Access Network**

#### *Abstract*

This talk mainly consists of 3 parts: Traffic forecast, Challenge of Radio Network, Solutions. Part 1 will give some forecast on traffic volume and traffic type of mobile in next 10 years. It is estimated that the traffic volume of mobile network will increase up to 1000X in next 10 years. Part 2 summary the challenges the mobile access network, especially in spectrum resource, site resource, backhaul, and energy consumption. Part 3 will talk some future solutions. The solution will come from theory breakthrough and technology progress and innovation.



#### *Speaker Bio*

**Dr. Yang Ganghua**

Director of Research Planning Department  
Huawei Corporate Research

Ganghua Yang received BS from Zhejiang University, China in 1991, and MS from China Academy of Tel-communications Technology (CATT), China in 1994. He was a researcher of First Research Institute of CATT from 1994 through 1996. In 1996, he joined Huawei Technologies, China, starting as System Designer and Product leader of GSM Base Station in Wireless Product line. He was the chief scientist of Radio Access Network of Wireless Network Product line in Huawei Technologies from 2005 through 2008. He worked for CPRI((Common Public Radio Interface, Founded by Ericsson/Huawei/NEC/Nortel Networks/Siemens) since 2003 to 2008, as representative of Huawei. Yang was awarded Second Prize of National Science and Technology Progress Award of the year 2000 because of successful developing the GSM system and making the system commercial mass operating. Now he is the director of Research Planning Department of Huawei Corporate Research. His interests cover wireless access network, common physical layer algorithm and technology, and MIMO-OFDM systems.

## Wednesday, October 12

09:00 – 10:00

*Venue: Kapok room*

Chair: Prof. Samuel Pierre (Ecole Polytechnique de Montreal, Canada)

### Keynote 2

**The Next Generation CDMA Technology -  
its Opportunities and Challenges**



#### *Abstract*

The next generation code division multiple access (NG-CDMA) technology was proposed as an evolutionary air-link technology from the traditional CDMA techniques which have been widely used in 2G, 3G and 3.5G wireless communication systems. The salient features of the NG-CDMA technology include its interference-resistant performance, support of high-speed bursty traffic, multipath diversity capability, powerful process gain, inherent MIMO application, etc. Those unique features make the NG-CDMA suitable in particular for its applications in futuristic wireless communications. This talk will offer a comprehensive overview on the architecture and design of a wireless communication system based on NG-CDMA technology and show its operational advantages if compared to traditional multiple access schemes, including orthogonal frequency division multiple access (OFDMA) which has been viewed as the main air-link technology in 4G wireless.

#### *Speaker Bio*

##### **Professor Hsiao-Hwa Chen**

Distinguished Professor

Department of Engineering Science, National Cheng Kung University, Taiwan

Hsiao-Hwa Chen received BSc and MSc degrees from Zhejiang University, China, and PhD degree from University of Oulu, Finland, in 1982, 1985 and 1990, respectively, all in Electrical Engineering. He has authored or co-authored over 400 technical papers in major international journals and conferences, six books and more than ten book chapters in the areas of communications. Currently, he is serving as the Chair for IEEE ComSoc Communications and Information Security Technical Committee. He served as the Chair for IEEE ComSoc Radio Communications Committee from 2007 to 2008. He served or is serving as conferences/symposia/workshops chair/co-chair of many major IEEE conferences, including VTC, ICC, Globecom and WCNC, etc. He served or is serving as Associate Editor or/and Guest Editor of numerous important technical journals. He is serving as the Editor (Asia and Pacific) for Wiley's Wireless Communications and Mobile Computing (WCMC) Journal and Wiley's International Journal of Communication Systems. He is the founding Editor-in-Chief of Wiley's Security and Communication Networks journal. He is also an adjunct Professor of Zhejiang University, China, and Shanghai Jiao Tong University, China. Professor Chen is a recipient of the Best Paper Award in IEEE WCNC 2008, and a recipient of IEEE Radio Communications Committee Outstanding Service Award in 2008. He is a Fellow of IEEE, IET and BCS.

## Monday, October 10

14:00 – 15:00

*Venue: Magnolia room*

Chair: Bhushan Jagyasi (TCS Innovation Labs Mumbai, India)

### WiTRUE Keynote

**Building and Applying Technology to Amplify the Effectiveness of People-based Agricultural Extension Systems**



#### *Abstract*

Digital Green builds and deploys information and communication technology to amplify the effectiveness of development efforts to affect sustained, social change. The Digital Green system combines technology and social organization to improve the cost-effectiveness and broaden the community participation of existing agricultural extension systems. The unique components of the Digital Green system include (1) a participatory process for local video production, (2) a human-mediated instruction model for video dissemination and training, (3) a hardware and software technology platform for exchanging data in areas with limited Internet and electrical grid connectivity, and (4) an iterative model to progressively better address the needs and interests of the community with analytical tools and interactive phone-based feedback channels. Digital Green has been shown to be at least ten times as effective, per dollar spent, in converting farmers to better farming practices, than classical Training & Visit-based approaches to agriculture extension. To learn more, please visit Digital Green's website: <http://www.digitalgreen.org>.

#### *Speaker Bio*

**Dr. Rikin Gandhi**

Chief Executive Officer  
Digital Green

Rikin Gandhi is chief executive officer of Digital Green. Rikin's interests include sustainable agriculture and technology for socioeconomic development. He co-founded Digital Green as a research project in Microsoft Research India's Technology for Emerging Markets team and now leads the spin-off of Digital Green as an independent organization that works to amplify the effectiveness of agricultural development globally. Rikin is a licensed private pilot and received patents for linguistic search algorithms that he helped develop at Oracle. He has a master's in aeronautical and astronautical engineering from Massachusetts Institute of Technology and a bachelor's in computer science from Carnegie Mellon University.

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Tuesday, October 11, 2011

### Technical Program Agenda

	<i>Room: Sakura</i>	<i>Room: Magnolia</i>
08:00 - 09:00	<i>Welcome Reception</i>	
09:00 - 10:00	<i>Keynote Speaker:</i> <i>Dr. Yang Ganghua</i> <i>The Challenge and Potential Solution of Mobile Access Network</i> <i>Venue: Kapok room</i>	
10:00 - 10:30	<i>Coffee Break</i>	
10:30 - 12:30	<i>TS1:</i> <i>Vehicular Ad Hoc Networks</i>	<i>TS2:</i> <i>Performance Analysis</i>
12:30 - 14:00	<i>Lunch Break</i>	
14:00 - 16:00	<i>TS3:</i> <i>Routing</i>	<i>TS4:</i> <i>Security and Privacy</i>
16:00 - 16:30	<i>Coffee Break</i>	
16:30 - 18:00	<i>TS5:</i> <i>Localization &amp; time synchronization</i>	<i>TS6:</i> <i>MIMO</i>
Evening	<i>Start at 19:00</i> <i>Gala Dinner</i>	

### WiMOB 2011 - Standard Program

08:00 - 09:00	<b>Welcome Reception</b>
09:00 - 10:00	<b>Keynote: Dr. Yang Ganghua</b> <b>The Challenge and Potential Solution of Mobile Access Network</b> Chair: Prof. Abderrahim Benslimane (University of Avignon, France) <i>Venue: Kapok room</i>
10:00 - 10:30	Coffee Break

10:30 – 12:30 **TS1: Vehicular Ad Hoc Networks (Oct 11, 10:30 - 12:00)**

*Room: Sakura*

**Chairs:** Mingming Lu (Shenzhen Institute of Advanced Technology, P.R. China),  
Adrian Holzer (Ecole Polytechnique de Montréal, Canada)

- **Dynamic Consensus for Secured Vehicular Ad hoc Networks**  
Jonathan Petit (University of Twente, The Netherlands); Zoubir Mammeri (Paul Sabatier University, France)
- **Fuzzy Cognitive Vehicular Ad hoc Networks** **Ali J. Ghandour (American University of Beirut, Lebanon); Kassem Fawaz (American University of Beirut, Lebanon); Hassan A. Artail (American University of Beirut, Lebanon)**
- **QoS-enabled Group Communication in Integrated VANET-LTE Heterogeneous Wireless Networks**  
Rajarajan Sivaraj (University of California, Davis, USA); Aravind Kota Gopalakrishna (University of Technology, Eindhoven & TCS Innovation Labs, Tata Consultancy Services, India); Girish Chandra (Tata Consultancy Services, India); P. Balamuralidhar (Tata Consultancy Services, India)
- **A Hybrid Cooperative Service Discovery Scheme for Mobile Services in VANET**  
Abderrahmane Lakas (UAEU, UAE); Mohamed Adel Serhani (UAE University, UAE); Mohamed Boulmalf (Canadian University in Dubai, UAE)
- **A Network Partitioning Recovery Process in Mobile Ad-Hoc Networks**  
Mikhail Tarasov (Ilmenau University of Technology & GS Mobicom, Germany); Jochen Seitz (Technische Universitaet Ilmenau, Germany); Oleksandr Artemenko (University of applied sciences Erfurt, Germany)

**TS2: Performance Analysis (Oct 11, 10:30 - 12:00)**

*Room: Magnolia*

**Chairs:** Sameh R Zakhary (University of Nottingham, United Kingdom), P. Balamuralidhar (Tata Consultancy Services, India)

- **Modelling and Analysis of Convergence of Wireless Sensor Network and Passive Optical Network Using Queueing Theory**  
Zhenfei Wang (University of Essex, United Kingdom); Kun Yang (University of Essex, United Kingdom); David K. Hunter (University of Essex, United Kingdom)
- **Call Dropping Performance Analysis of the eNB-First Channel Access Policy in LTE-Advanced Relay Networks**  
Xian Wang (Southwest Jiaotong University & National Taiwan University of Science and Technology, P.R. China); Shi-Jinn Horng (National Taiwan University of Science and Technology, Taiwan); Ray-Guang Cheng (National Taiwan University of Science and Technology, Taiwan); Pingzhi Fan (Southwest Jiaotong University, P.R. China)
- **Performance of Cognitive Radio Networks under Resume and Restart Retransmission Strategies**  
S. Lirio Castellanos-Lopez (Cinvestav-IPN, Mexico); Felipe A. Cruz-Pérez (Cinvestav-



	<p>IPN, Mexico); Genaro Hernandez-Valdez (UAM-A, Mexico)</p> <ul style="list-style-type: none"> <li>• <b>A Timestamp Based Detection of Fast Retransmission Loss for Improving the Performance of TCP NewReno over Wireless Networks</b> Prasanthi Sreekumari (Pusan National University, Korea)</li> <li>• <b>A Continuous Time Markov Model for Unlicensed Spectrum Access</b> Usama Mir (University of Technology, Troyes (UTT), France); Leila Merghem-Boulaiah (UTT, France); Moez Esseghir (University of Technology of Troyes &amp; Charles Delaunay Institute, France); Dominique Gaiti (University of Technology of Troyes, France)</li> <li>• <b>A Dynamic Rain Attenuation Model for Adaptive Satellite Communication Systems</b> Meixiang Zhang (Chonbuk National University, Korea); Sooyoung Kim (Chonbuk National University, Korea)</li> </ul>
<p>12:30 – 14:00</p>	<p><b>Lunch Break</b></p>
<p>14:00 – 16:00</p>	<p><b>TS3: Routing (Oct 11, 14:00 - 16:00)</b> <i>Room: Sakura</i> <b>Chairs: Dhadesugoor R. Vaman (Priarie View A&amp;M University, USA), Jean-Marc Robert (Ecole de Technologie Supérieure, Canada)</b></p> <ul style="list-style-type: none"> <li>• <b>Geographic Routing with Constant Stretch in Large Scale Sensor Networks with Holes</b> Myounggyu Won (Texas A&amp;M University, USA); Radu Stoleru (Texas A&amp;M University, USA); Haijie Wu (Texas A&amp;M University, USA)</li> <li>• <b>Performance Analysis of Routing in VANETs Using the RSU Network</b> Khaleel W Mershad (American University of Beirut, Lebanon); Hassan A. Artail (American University of Beirut, Lebanon) Adaptive Routing in a Contextcast Overlay Network Lars Geiger (Universität Stuttgart, Germany); Frank Dürr (University of Stuttgart, Germany); Kurt Rothermel (University of Stuttgart, Germany)</li> <li>• <b>Routing on Mini-Gabriel Graphs in Wireless Sensor Networks</b> Lutful Karim (University of Guelph, Canada); Nidal Nasser (University of Guelph, Canada); Tarek El Salti (University of Guelph, Canada)</li> <li>• <b>A Hub Detour Routing Strategy in Wireless Scale-Free Networks</b> Sangsu Jung (National Institute for Mathematical Sciences, Korea); Boram Jin (National Institute for Mathematical Sciences, Korea); Okyu Kwon (National Institute for Mathematical Sciences, Korea)</li> </ul> <p><b>TS4: Security and Privacy (Oct 11, 14:00 - 16:00)</b> <i>Room: Magnolia</i> <b>Chairs: Thomas Kunz (Carleton University, Canada), Weidong (Larry) Shi (University of Houston, USA)</b></p>

	<ul style="list-style-type: none"> <li>• <b>Efficient Flooding in Wireless Sensor Networks Secured with Neighborhood Keys</b> Amin Hassanzadeh (Texas A&amp;M University, USA); Radu Stoleru (Texas A&amp;M University, USA); Jianer Chen (Texas A&amp;M University, USA)</li> <li>• <b>A Privacy-Preserving Targeted Mobile Advertising Architecture</b> Ahmed Fawaz (American University of Beirut, Lebanon); Ali Hojajj (American University of Beirut, Lebanon); Hadi Kobeissi (American University of Beirut, Lebanon); Hassan A. Artail (American University of Beirut, Lebanon)</li> <li>• <b>Novel Detection Mechanisms for Malicious Attacks Targeting the Cluster-based OLSR Protocol</b> Yassine Snoussi (Ecole de Technologie Supérieure, Canada); Jean-Marc Robert (Ecole de Technologie Supérieure, Canada); Hadi Otrok (Khalifa University of Science, Technology &amp; Research (KUSTAR), UAE)</li> <li>• <b>SenGuard: Passive User Identification on Smartphones Using Multiple Sensors</b> Weidong (Larry) Shi (University of Houston, USA); Jun Yang (Nokia Research Center, USA); Yifei Jiang (University of Colorado, USA); Feng Yang (École Polytechnique Fédérale de Lausanne, Switzerland); Yingen Xiong (Nokia Research Center, USA)</li> <li>• <b>REACT: Secure and Efficient Data Acquisition in VANETs</b> Khaleel W Mershad (American University of Beirut, Lebanon); Hassan A. Artail (American University of Beirut, Lebanon)</li> </ul>
16:00 – 16:30	Coffee Break
16:30 – 18:00	<p><b>TS5: Localization and time synchronization (Oct 11, 16:30 - 18:00)</b> <i>Room: Sakura</i></p> <p><b>Chairs: George Baciú (The Hong Kong Polytechnic University, Hong Kong), Paul A.S. Ward (University of Waterloo, Canada)</b></p> <ul style="list-style-type: none"> <li>• <b>Implementing Clock Synchronization in WSN: CS-MNS vs. FTSP</b> Thomas Kunz (Carleton University, Canada); Ereth McKnight-MacNeil (Carleton University, Ottawa, Canada)</li> <li>• <b>Using Fuzzy Color Maps to Increase the Positioning Accuracy in the Poor Wi-Fi Coverage Regions</b> Eddie Chan (The Hong Kong University of Science and Technology, Hong Kong); George Baciú (The Hong Kong Polytechnic University, Hong Kong); S. C. Mak (The Hong Kong Polytechnic University, Hong Kong)</li> <li>• <b>A Context-aware and Location Prediction Framework for Dynamic Environments</b> Yousif Al Ridhawi (University of Ottawa, Canada); Ismaeel Al Ridhawi (University of Ottawa, Canada); Ahmed Karmouch (University of Ottawa, Canada); Amiya Nayak (SITE, University of Ottawa, Canada)</li> <li>• <b>Anchor Node Placement for Localization in Wireless Sensor Networks</b></li> </ul>

	<p>Benjamin Tatham (Carleton University, Canada); Thomas Kunz (Carleton University, Canada)</p> <p><b>TS6: MIMO (Oct 11, 16:30 - 18:00)</b></p> <p><i>Room: Magnolia</i></p> <p><b>Chairs: Yiqing Zhou (Chinese Academy of Science, P.R. China), Yinman Lee (National Chi Nan University, Taiwan)</b></p> <ul style="list-style-type: none"> <li>• <b>On the Capacity of Two-Way Distributed MIMO Repeater System</b> Pham Thanh Hiep (Yokohama national university, Japan); Ryuji Kohno (Yokohama National University, Japan)</li> <li>• <b>On the BER and Capacity Analysis of MIMO MRC Systems with Channel Estimation Error</b> Liang Yang (Jinan University, P.R. China); Mohamed-Slim Alouini (KAUST, Saudi Arabia)</li> <li>• <b>Coordinated Multi-Cell MU-MIMO Downlink Transmission with Adaptive Beam Deactivation</b> Jinhee Lee (Korea University, Korea); Young-Chai Ko (Korea University, Korea); Seyeong Choi (Wonkwang University, Korea); Hong-Chuan Yang (University of Victoria, Canada); Sungjin Kim (SAIT, Korea)</li> <li>• <b>Adaptive Multi-Antenna Systems Based on Self-Growing Symmetric Radial Basis Function</b> Yao-Jen Chang (Industrial Technology Research Institute, Taiwan)</li> </ul>
<p><b>Evening</b></p>	<p><b>Start at 19:00 - Gala Dinner</b></p>

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### Wednesday, October 12, 2011

### Technical Program Agenda

	Room: Sakura	Room: Magnolia
08:00 - 09:00	Welcome Reception	
09:00 - 10:00	Keynote Speaker: Prof. Hsiao-Hwa Chen The Next Generation CDMA Technology - its Opportunities and Challenges Venue: Kapok room	
10:00 - 10:30	Coffee Break	
10:30 - 12:30	TS7: Cooperative and Network Connectivity	TS8: OFDM System
12:30 - 14:00	Lunch Break	
14:00 - 16:00	TS9: Resource Allocation	TS10: Mobile Applications
16:00 - 16:30	Coffee Break	
16:30 - 18:00	TS11: Coding Techniques	TS12: Routing in Wireless Networks
Evening	End of WiMob 2011	

### WiMOB 2011 - Standard Program

08:00 - 09:00	<b>Welcome Reception</b>
09:00 - 10:00	<b>Keynote: Prof. Hsiao-Hwa Chen</b> <b>The Next Generation CDMA Technology - its Opportunities and Challenges</b> Chair: Prof. Samuel Pierre (Ecole Polytechnique de Montreal, Canada) Venue: Kapok room
10:00 - 10:30	Coffee Break

10:30 – 12:30 **TS7: Cooperative and Network Connectivity (Oct 12, 10:30 - 12:00)**

*Room: Sakura*

**Chairs:** Hao Chen (State University of New York - Binghamton, USA),  
Charalampos Konstantopoulos (University of Piraeus, Greece)

- **Cooperative Joint Precoding for Relay Enhanced Cellular System over Nakagami-m Fading Channels**  
Jae-Woo Kwon (Korea University, Korea); Ki-Hong Park (King Abdullah University of Science and Technology, Saudi Arabia); Young-Chai Ko (Korea University, Korea); Hong-Chuan Yang (University of Victoria, Canada)
- **Inter-cell Interference Coordination via Cooperative Rate Splitting and Scheduling**  
Guangxia Zhou (Universität der Bundeswehr München & Intel Mobile Communications, Germany); Gerhard Bauch (Universität der Bundeswehr München & Institute for Information Processing, Germany); Jens Berkmann (Intel Mobile Communications, Germany)
- **A Cooperative Game-Theory Model for Bandwidth Allocation in Multi-hop Wireless Networks**  
Miao Jiang (University of Waterloo, Canada); Paul A.S. Ward (University of Waterloo, Canada)
- **A Novel Handover Scheme for Seamless Wireless Connectivity in High-Speed Rail**  
Lin Tian (Institute of Computing Technology, Chinese Academy of Sciences, P.R. China); Yiqing Zhou (Chinese Academy of Science, P.R. China); Juan Li (Institute of Computing Technology Chinese Academy of Sciences, P.R. China); Yi Huang (Institute of Computing Technology, China Academy of Sciences, P.R. China); Jinglin Shi (Institute of Computing Technology, Chinese Academy of Sciences, P.R. China)
- **Towards a feasible social-based methodology to manage wireless connectivity context data**  
Roberto R. F. Lopes (University of Sao Paulo & University of Twente, Brazil); Bert-Jan van Beijnum (University of Twente, The Netherlands); Edson D. S. Moreira (University of Sao Paulo, Brazil)

**TS8: OFDM System (Oct 12, 10:30 - 12:00)**

*Room: Magnolia*

**Chairs:** Nasser-Eddine Rikli (King Saud University & College of Computer and Information Sciences, Saudi Arabia), Abderrahmane Lakas (UAEU, UAE)

- **Blind OFDM Carrier Frequency Offset Estimation in the presence of DC Offset**  
Tomoya Onishi (Osaka Prefecture University, Japan); Md. Alamgir Hossain (Osaka Prefecture University, Japan); Hai Lin (Osaka Prefecture University, Japan); Katsumi Yamashita (Osaka Prefecture University, Japan)
- **ICoN: Interference Concentration for Uplink in MultiCell OFDMA Networks**  
Dorna Bandari (University of California, Los Angeles (UCLA) & Ecole Polytechnique

	<p>Federale de Lausanne (EPFL), USA); Gregory Pottie (University of California at Los Angeles, USA); Pascal Frossard (Swiss Federal Institute of Technology - EPFL, Switzerland)</p> <ul style="list-style-type: none"> <li>• <b>Performance Enhancement of OFDM Systems Based on Signal Spreading</b> Rong-Terng Juang (Industrial Technology Research Institute, Taiwan); Kar-Peou Yar (I2R, Singapore); Kun-Yi Lin (National Taipei University of Technology, Taiwan); Ding-Bing Lin (National Taipei University of Technology, Taiwan); Pangan Ting (Tsing Hua University, Taiwan); Hsin-Piao Lin (National Taipei University of Technology, Taiwan)</li> <li>• <b>Decentralized Multiuser Beamforming for Cellular Communication Systems</b> Rong-Terng Juang (Industrial Technology Research Institute, Taiwan); Kar-Peou Yar (I2R, Singapore); Kun-Yi Lin (National Taipei University of Technology, Taiwan); Pangan Ting (Tsing Hua University, Taiwan)</li> <li>• <b>A Semantic Unification Approach for M2M Applications based on Ontology</b> Menghan Chen (Shanghai Jiaotong University, P.R. China)</li> </ul>
12:30 – 14:00	<b>Lunch Break</b>
14:00 – 16:00	<p><b>TS9: Routing (Oct 12, 14:00 - 16:00)</b> <i>Room: Sakura</i></p> <p><b>Chairs: Nouredine Hamdi (ENIT &amp; INSAT, Tunisia), Prasanthi Sreekumari (Pusan National University, Korea)</b></p> <ul style="list-style-type: none"> <li>• <b>QoS Guaranteed Resource Block Allocation Algorithm for LTE Systems</b> Na Guan (Graduate University of Chinese Academy of Sciences &amp; Institute of Computing Technology, P.R. China)</li> <li>• <b>A Novel Link Buffer Size Estimation Algorithm for Bandwidth-Varying Mobile Data Networks</b> Stanley C.F. Chan (The Chinese University of Hong Kong, Hong Kong); Jack Y. B. Lee (The Chinese University of Hong Kong, Hong Kong)</li> <li>• <b>VMAP with Caching Scheme to Performance Improvements of Handover on the HMIPv6 Network</b> Shin-Jer Yang (Soochow University, Taipei, Taiwan); Shao-Yuan Chih (Soochow University, Taiwan)</li> <li>• <b>Hybrid ZF-ML Detection for <math>N \times N</math> Spatial Multiplexing Systems</b> Hong-Wei Shieh (National Chi Nan University, Taiwan); Yinman Lee (National Chi Nan University, Taiwan); Sok-Ian Sou (National Cheng Kung University, Taiwan)</li> <li>• <b>TCP's Dynamic Responding to Packet Losses in Wired-Wireless Networks</b> Mi-Young Park (Pusan National University, Korea); Sang-Hwa Chung (Pusan National University, Korea); Chang-Woo Ahn (Pusan National University, Korea); Yingwen Song (Shanghai Advanced Research Institute, Chinese Academy of Sciences, P.R. China)</li> </ul>

**TS10: Mobile Applications (Oct 12, 14:00 - 16:00)**

*Room: Magnolia*

**Chairs: Ahmed Karmouch (University of Ottawa, Canada), Yingwen Song (Shanghai Advanced Research Institute, Chinese Academy of Sciences, P.R. China)**

- **An Efficiency-centric Design Methodology for Mobile Application Architectures**  
Ho Joong Lee (Soongsil University, Korea); Soo Dong Kim (Soongsil University, Korea); Hyun Jung La (Soongsil University, Korea)
- **Cost-Effective and Feasible VOOH Solution for Seamless Service Roaming**  
Thang Tran (TU Dortmund University, Germany); Christian Wietfeld (TU Dortmund University, Germany)
- **Towards a Green Mobile Development and Certification**  
Clairiton A Siebra (Federal University of Pernambuco, Brazil)
- **Personalized Routes for Mobile Tourism**  
Damianos Gavalas (University of the Aegean, Greece); Michael Kenteris (, Greece); Charalampos Konstantopoulos (University of Piraeus, Greece); Grammati Pantziou (Technological Educational Institution of Athens, Greece)
- **BROADTRIP: Broadcast for Transit in Platoons**  
Adrian Holzer (Ecole Polytechnique de Montréal, Canada); Saida Maaroufi (Ecole Polytechnique de Montréal, Canada); Samuel Pierre (Ecole Polytechnique de Montreal, Canada)

16:00 – 16:30 Coffee Break

**16:30 – 18:00 TS11: Localization and time synchronization (Oct 12, 16:30 - 18:00)**

*Room: Sakura*

**Chairs: Xingkai Bao (Lehigh University, USA), Thang Tran (TU Dortmund University, Germany)**

- **On the exact bit error performance of opportunistic network coding in wireless networks**  
Panupat Poocharoen (Oregon State University, USA); Mario E. Magaña (Oregon State University, USA)
- **Parallel Progressive Hierarchical Turbo Codes**  
Alina A. Florea (CASSIDIAN & Telecom SudParis, France); Hang Nguyen (Institut Telecom, Telecom SudParis, France); Laurent Martinod (Cassidian Systems & Security & Communication Solutions, France); Christophe Molko (CASSIDIAN, France)
- **Quasi-Cyclic Low-Density Parity-Check Convolutional Code**  
Yixiang Wang (Shanghai Jiao Tong University, P.R. China); Hui Yu (Shanghai Jiao Tong University, P.R. China); Youyun Xu (Shanghai Jiaotong University, P.R. China)
- **Erasure Coding with Replication to defend against malicious attacks in DTN**  
Sameh R Zakhary (University of Nottingham, United Kingdom); Milena Radenkovic

	<p>(University of Nottingham, United Kingdom)</p> <p><b>TS12: Routing in Wireless Networks (Oct 12, 16:30 - 18:00)</b></p> <p><i>Room: Magnolia</i></p> <p><b>Chairs: Samuel Pierre (Ecole Polytechnique de Montreal, Canada), Sangsu Jung (National Institute for Mathematical Sciences, Korea)</b></p> <ul style="list-style-type: none"> <li>• <b>A Critical Evaluation of the "IPv6 Routing Protocol for Low Power and Lossy Networks" (RPL)</b>              Thomas Heide Clausen (Ecole Polytechnique, France); Ulrich Herberg (Fujitsu Laboratories of America, USA); Matthias Philipp (LIX, France)</li> <li>• <b>Reinforcement Learning-based Best Path to Best Gateway Scheme for Wireless Mesh Networks</b>              Mustapha Boushaba (University of Montreal, Canada); Abdelhakim Hafid (University of Montreal, Canada); Abdeltouab Belbekkouche (University of Ottawa, Canada)</li> <li>• <b>Reducing Message Delay with the General Message Ferry Route (MFR*) Problem</b>              Ting Wang (Nanyang Technological University, Singapore); ChorPing Low (Nanyang Technological University, Singapore)</li> <li>• <b>TCBWD: Topological Comparison-based Byzantine Wormhole Detection for MANET</b>              King-Sun Chan (Curtin University of Technology, Australia)</li> </ul>
<p><b>Evening</b></p>	<p><b>End of WiMob 2011</b></p>



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### Monday, October 10, 2011

### Workshop Program

	Room: Magnolia	Room: Sakura
08:00 - 09:00	Welcome Reception	
09:00 - 10:00	PEMOS Session 1	S1: Wireless Communication
10:00 - 10:30	Coffee Break	
10:30 - 12:30	PEMOS Session 2	S2: Ubiquitous Computing, Services and Application
12:30 - 14:00	Lunch Break	
14:00 - 16:00	WiTRUE Keynote: Rikin Gandhi	S3: Mobile Networking, Mobility and Nomadicity
	Start at 15:00 WiTRUE (Part A)	
16:00 - 16:30	Coffee Break	
16:30 - 17:30	WiTRUE (Part B)	
Evening	Start at 19:00 Cocktail	

### PEMOS 2011 - 2nd International Workshop on the Performance Enhancements in MIMO-OFDM Systems

08:00 - 09:00	<b>Welcome Reception</b>
09:00 - 10:00	<b>PEMOS 2011: Session 1 (Oct 10, 09:00 - 10:00)</b> <i>Room: Magnolia</i> <b>Chair: Ibrahim Abualhaol (Khalifa University, UAE)</b> <ul style="list-style-type: none"> <li> <b>LTE-A an Overview and Future Research Areas</b>                      Shihab Jimaa (Khalifa University, UAE); Kok Keong Chai (Queen Mary, University of London, United Kingdom); Yue Chen (Queen Mary, University of London, United Kingdom)                 </li> </ul>

	<p>Kingdom); Yasir Alfadhl (Queen Mary University of London, United Kingdom)</p> <ul style="list-style-type: none"> <li>• <b>Capacity Enhancement and Power Allocation Using a Multi-antenna Relay System</b> Md. Abdul Latif Sarker (Chonbuk National University, Korea)</li> <li>• <b>Binary Quadratic Mu-MIMO Joint Receive Antenna Selection and User Scheduling</b> Sherif A. Elgohari (Cairo University, Egypt); Mohamed Khairy (Assoc Prof, Cairo Univ &amp; Cairo Univ, Egypt)</li> </ul>
10:00 – 10:30	<b>Coffee Break</b>
10:30 – 12:30	<p><b>PEMOS 2011: Session 2 (Oct 10, 10:30 - 12:00)</b> <i>Room: Magnolia</i> <b>Chair: Shihab Jimaa (Khalifa University, UAE)</b></p> <ul style="list-style-type: none"> <li>• <b>Optimal Pilots Design for Frequency Offsets and Channel Estimation in OFDM Modulated Single Frequency Networks</b> Zhongshan Zhang (NEC China Laboratories, P.R. China); Jian Liu (University of Electronic Science and Technology of China, P.R. China); Keping Long (University of Science and Technology Beijing, P.R. China)</li> <li>• <b>Robust Early-Late Gate System for Symbol Timing Recovery in MIMO-OFDM Systems</b> Sedki Younis (Newcastle University, United Kingdom); Arafat J. Al-Dweik (Khalifa University, UAE); Charalampos C. Tsimenidis (Newcastle University, United Kingdom); Bayan Sharif (University of Newcastle Upon Tyne, United Kingdom); Ali Hazmi (Tampere University of Technology, Finland)</li> <li>• <b>Study of stopping criteria in LDPC coded iterative MIMO OFDM receiver</b> Akl Charaf (Telecom ParisTech, France); Pierre Penard (France Telecom, France); Laurent Cariou (France Telecom R&amp;D, France); Georges Rodriguez (TELECOM ParisTech, France) Iterative Channel Estimation and Turbo Decoding for OFDM Systems Hoda Hafez (Cairo University, Egypt); Yasmine A. H. Fahmy (Cairo University, Egypt); Mohamed Khairy (Assoc Prof, Cairo Univ &amp; Cairo Univ, Egypt)</li> </ul>

**STWiMOB 2011 - 4th International Workshop on Selected Topics in Mobile and Wireless Computing**

08:00 – 09:00	<b>Welcome Reception</b>
09:00 – 10:00	<p><b>S1: Wireless Communications (Oct 10, 09:00 - 10:00)</b> <i>Room: Sakura</i> <b>Chair: Emil Novakov (IMEP, France)</b></p>

	<ul style="list-style-type: none"> <li>• <b>Performance of MC-DS-CDMA in the Presence of Timing Jitter</b> Xiang Gui (Massey University, New Zealand); Lindong Xu (Massey University, New Zealand)</li> <li>• <b>Soft MMSE receiver for turbo coded MIMO system</b> Pingping Shang (Chonbuk National University, Korea); Sooyoung Kim (Chonbuk National University, Korea); Kwonhue Choi (Yeungnam University, Korea)</li> <li>• <b>Adaptive Time Domain Scheduling Algorithm for OFDMA Based LTE-Advanced Networks</b> <b>Rehana Kausar</b> (Queen Mary University of London, United Kingdom); Yue Chen (Queen Mary, University of London, United Kingdom); Kok Chai (Queen Mary, University of London, United Kingdom)</li> </ul>
10:00 – 10:30	Coffee Break
10:30 – 12:30	<p><b>S2: Ubiquitous Computing, Services and Applications (Oct 10, 10:30 - 12:30)</b> <i>Room: Sakura</i> Chair: <b>Rehana Kausar</b> (Queen Mary University of London, United Kingdom)</p> <ul style="list-style-type: none"> <li>• <b>Exploiting Addresses Correlation to Maximize Lifetime of IPv6 Cluster-based WSNs</b> Leila Ben Saad (ENS Lyon, INRIA, CITI INSA Lyon, France); Bernard Tourancheau (EA CITI at INSA-Lyon and INRIA &amp; University of Lyon1, France)</li> <li>• <b>Exploiting Wireless Broadcast Advantage as a Network-wide Cache</b> Abhik Banerjee (Nanyang Technological University, Singapore); Chuan Heng Foh (Nanyang Technological University, Singapore); Chai Kiat Yeo (Nanyang Technological University, Singapore); Bu Sung Lee (Nanyang Technological University, Singapore)</li> <li>• <b>A Video Frame Exchange Protocol with Selfishness Detection Mechanism under Sparse Infrastructure-based Deployment in VANET</b> Sok-Ian Sou (National Cheng Kung University, Taiwan); Wen-Cheng Shieh (National Cheng Kung University, Taiwan); Yinman Lee (National Chi Nan University, Taiwan)</li> <li>• <b>Ultra-Wideband Communication System with Transmitting Pulses Shaped by Orthogonal Frequencies Signals</b> Emil Novakov (IMEP, France)</li> <li>• <b>Call Admission Control for Hybrid Access Mode Femtocell System</b> Seung-Que Lee (ETRI, Korea); Ryu Byung Han (ETRI, Korea); Nam-Hoon Park (ETRI, Korea)</li> </ul>
12:30 – 14:00	Lunch Break
14:00 – 16:00	<p><b>S3: Mobile Networking, Mobility and Nomadicity (Oct 10, 14:00 - 16:00)</b> <i>Room: Sakura</i> Chair: <b>Sok-Ian Sou</b> (National Cheng Kung University, Taiwan)</p> <ul style="list-style-type: none"> <li>• <b>Selfishness Detection for Backoff Algorithms in Wireless Networks</b></li> </ul>

	<p>Antony Ganchev (Concordia University, Canada); Lata Narayanan (Concordia University, Canada)</p> <ul style="list-style-type: none"> <li>• <b>Implementing Channel-Load Aware Routing Scheme for IEEE 802.11 Mesh Networks</b> Jeong-Soo Kim (Pusan National University, Korea); Sang-Hwa Chung (Pusan National University, Korea); Chang-Woo Ahn (Pusan National University, Korea); Won-suk Kim (Pusan National University, Korea)</li> </ul>
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**WiTRUE 2011 - 1st International Workshop on Wireless Communication and Networking Technologies for Rural Enrichment**

14:00 – 15:00	<p><b>WiTRUE Keynote: (Oct 10, 14:00 - 15:00)</b>  <i>Room: Magnolia</i>  <b>Chair: Bhushan Jagyasi (TCS Innovation Labs Mumbai, India)</b>  <b>Keynote: Dr. Rikin Gandhi</b>  <b>Building and Applying Technology to Amplify the Effectiveness of People-based Agricultural Extension Systems</b></p>
15:00 – 16:00	<p><b>WiTRUE Part A: (Oct 10, 15:00 - 16:00)</b>  <i>Room: Magnolia</i>  <b>Chair: Herve' Ntareme (KTH, Sweden)</b></p> <ul style="list-style-type: none"> <li>• <b>Deployment of a Wireless Sensor Network for Aquaculture and Lake Resource Management</b>  Chris Favila (Ateneo de Manila University, Philippines); Nathaniel Libatique (Ateneo de Manila University, Philippines)</li> <li>• <b>Event based Experiential Computing in Agro-Advisory System for Rural Farmers</b>  Bhushan Gurmukhdas Jagyasi (TCS Innovation Labs Mumbai &amp; Indian Institute of Technology Bombay, India); Arun Pande (TCS Innovation Labs Mumbai, India); Ramesh Jain (UC Irvine, USA)</li> <li>• <b>Augmented Reality in Agriculture</b>  Apurv Nigam (Tata Consultancy Services Ltd., India); Priyanka Kabra (Innovation Labs, Mumbai, Tata Consultancy Services Limited &amp; Tata Consultancy Services Limited, India); Pankaj Doke (Tata Consultancy Services Ltd., India)</li> </ul>
16:00 – 16:30	<p><b>Coffee Break</b></p>
16:30 – 17:30	<p><b>WiTRUE Part B: (Oct 10, 16:30 - 17:30)</b>  <i>Room: Magnolia</i>  <b>Chair: Bhushan Jagyasi (TCS Innovation Labs Mumbai, India)</b></p> <ul style="list-style-type: none"> <li>• <b>Security and performance aspects of Bytewalla: A Delay Tolerant Network on smartphones</b>  Herve' Ntareme (KTH, Sweden); Sebastian Domancich (KTH &amp; TrustWeaver, Sweden)</li> <li>• <b>Efficient and Portable Reprogramming Method for High Resource-constraint Wireless Sensor Nodes</b></li> </ul>

Liu Xing (University Blaise Pascal & Wuhan University, France); Kun Mean Hou (LIMOS, France); HongLing Shi (LIMOS Laboratory UMR 6158 CNRS, France); Chengcheng Guo (Wuhan University, P.R. China); Haiying Zhou (Harbin Institut of Technology, P.R. China)

- **Simulator based Performance Analysis of Wireless Sensor Network-a New Approach**

Hemanta Kumar Kalita (Jadavpur University & Jadavpur University, India); Abhijit Kar (Jadavpur University, India)