IEEE COMMUNICATIONS SOCIETY

ICUFN 2013

July 2(Tue.) ~ July 5(Fri.), 2013
Grand Mercure Danang, Da Nang, Vietnam

The Fifth International Conference on Ubiquitous and Future Networks

http://www.icufn.org

Final Program

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Message from Organizing Committee Co-Chairs

*I*t is our great pleasure to invite you to attend ICUFN 2013, the Fifth International Conference on Ubiquitous and Future Networks, organized by the Korean Institute of Communications and Information Sciences (KICS) and technically co-sponsored by IEEE Communications Society (ComSoC). During the first decade of the 21st century, we have witnessed the tremendous growth in future networks and wireless ubiquitous technologies. In this global era, the importance of wireless networking and mobile ubiquitous technologies cannot be under-estimated. In fact, such technologies have now greatly impacted our lives and influenced the way we work, commute, travel, etc. To provide a great opportunity for the exchange of the state-of-the-art research advances in ubiquitous technologies and to expand the research community, we have decided to hold the fifth ICUFN in Da Nang. This is because of its status as a transportation hub for Central Vietnam and its proximity to several UNESCO World Heritage Sites, including the Imperial City of Hue, the Old Town of Hoi An, and the My Son. The Imperial City in Hue is a walled fortress and palace in the former capital of Vietnam. The World Heritage Committee has briefly assessed the value of Hue that the architecture of Hue, which has been the Capital of a unified Vietnam, built at about the beginning of the 19th century, combines the oriental philosophy with the traditions of Vietnam. Intimately mingled with the natural environment, the beauty and special richness of the architecture and decorative art of the building are an original image of the Vietnamese monarchy at its most prosperous period. Hoi An Ancient Town is an exceptionally well-preserved example of a South-East Asian trading port dating from the 15th to the 19th century. The town is a tourist attraction because of its history, traditional architecture and crafts such as textiles and ceramics. My Son is an archaeological site dating back more than a thousand years. Located in a remote forested valley around 70 km west of Da Nang, this former capital and religious center of the Champa kingdom once contained in excess of 70 style temples and stupas. Dating from the fourth to the 14th centuries, the sensual artwork on these works depicts daily activities as well as Hindu and Buddhist religious themes.

ICUFN is a truly international annual conference! Our TPC team consists of members from countries around the world. For ICUFN 2013, we have received over 393 submissions from many different countries and 171 papers have been accepted. Thanks to the tireless efforts of the technical program committee co-chairs, professors Myungsik Yoo, Zhaoyang Zhang, Pietro Mazoni, and Mike Lyu, ICUFN2013 is packed with an excellent mix of technical sessions. On behalf of the ICUFN steering committee and on behalf of all attendees, we thank the workshops co-chairs, professors Ki-Hyung Kim and Sungrae Cho, the local arrangement co-chairs, professors Nguyen Huu Thanh, Nguyen Le Hung, Sang-Chul Kim, and Kyung-Joon Park, all members of ICUFN2013, and workshop organizing committees for producing such a wonderful program. We hope you will take this good opportunity to attend the workshop sessions and technical sessions, meet the authors, and foster greater collaboration ties with other researchers. In addition, if you have extra time, please do not miss the chance to tour around Da Nang. The Organizing Committee has been working diligently to make this conference a great success and most enjoyable. We sincerely hope you will have a wonderful time in Da Nang, Vietnam! Participants are welcome to email their comments and ideas to any of the organizing committee co-chairs. We look forward to your active participation and support in the future. Thank you very much. Sincerely yours,

| **Yeong Min Jang** | **C. K. Toh** | **Naohisa Ohta** | **Zhisheng Niu** |
| Kookmin Univ., Korea | National Tsing Hua Univ., Taiwan | Keio Univ., Japan | Tsinghua Univ., China |

Message from TPC Co-Chairs

*I*t is our great pleasure to welcome all of you to Da Nang from July 2 through 5, 2013, for the Fifth International Conference on Ubiquitous and Future Networks (ICUFN). ICUFN has been covered all converging aspects of computing, networking and communications from 2009 conference and this ICUFN 2013 will be also a successful and exciting conference covering broad topics on ubiquitous and future network technologies.

This year we have received 393 paper submissions electronically from 20 countries in the world. Many of the papers were submitted from the Asia/Pacific region, and also the increasing number of submissions was made from Europe and USA. A rigorous review process has followed in which all papers received two or more independent reviews. After the reviews, we have selected 119 technical papers and 52 workshop papers for presentation at the conference.

The accepted technical and workshop papers were organized into 22 technical sessions and 6 workshops. The program covers a variety of topics on wireless and wired communication networking technologies including cognitive radios, wireless sensor networks, broadband wireless communications, future network issues, mobile multimedia networking, and other important technologies. In addition to the contribution of prominent authors from all over the world, we believe that this year's precious and interesting program was made possible by the commitment of technical program committee members. We are indebted to all of the TPC members for their active participation and precious time. We also would like to thank our sponsors, KICS and IEEE Communications Society, for their kind support of this successful event. We extend our sincere thanks to the Organizing Committee Co-Chairs, Prof. Yeong Min Jang, Prof. C. K. Toh, Prof. Naohisa Ohta, and Prof. Zhisheng Niu for their continued support and guidance. We hope that all of you will enjoy the excellent program of ICUFN 2013 as well as the beautiful scenery and attractions of Da Nang.

Sincerely,

Myungsik Yoo
Soongsil Univ., Korea

Zhaoyang Zhang
Zhejiang Univ., China

Pietro Mazoni
Tech. U of Valencia, Spain

Mike Lyu
Chinese Univ. of Hong Kong, China

ICUFN 2013 Program at a Glance

July 2 (Tuesday)	
08:00 ~ 10:00	**Session 1** (W2:PEWiN, W3:UCN, W4:IWIN)
10:00 ~ 10:15	Coffee Break
10:15 ~ 12:15	**Session 2** (W2:PEWiN, W3:UCN, W4:IWIN)
12:15 ~ 13:45	Lunch Break
13:45 ~ 15:45	**Session 3** (W6:CRCN, W1:WATCN)
15:45 ~ 16:00	Coffee Break
16:00 ~ 18:00	**Session 4** (W6:CRCN)
July 3 (Wednesday)	
08:00 ~ 09:20	**Session 5** (5A, 5B, 5C)
09:20 ~ 09:30	Session Break
09:30 ~ 10:50	**Session 6** (6A, 6B, 6C)
10:50 ~ 11:00	Session Break
11:00 ~ 11:20	**Opening & Welcome Address**
11:20 ~ 11:50	**Keynote Speech I** Vehicular Delay Tolerant Networks (Prof. Joel Rodrigues, IT, Univ. of Beira Interior, Portugal)
11:50 ~ 12:20	**Keynote Speech II** Thinking Objects in IoT Environment (Prof. Ilyoung Chong, Hankuk University of Foreign Studies, Korea)
12:20 ~ 13:50	Lunch Break
13:50 ~ 15:50	**Session 7** (7A, 7B) (W5:OWLED)
15:50 ~ 16:10	Coffee Break
16:10 ~ 18:10	**Session 8** (8A, 8B) (W5:OWLED)
18:30 ~ 20:00	Welcome Reception
July 4 (Thursday)	
09:20 ~ 10:20	**Session 9** (9A, 9B, 9C)
10:20 ~ 10:30	Session Break
10:30 ~ 12:00	**Session 10** (10A, 10B, 10C)
12:00 ~ 13:30	Lunch Break
13:30 ~ 15:30	**Session 11** (11A, 11B) (Invited Paper 1)
15:30 ~ 16:00	Coffee Break
16:00 ~ 18:20	**Session 12** (12A, 12B, 12C)
18:30 ~ 20:30	Banquet
July 5 (Friday)	
09:20 ~ 11:20	**Session 13** (13A, 13B)

Workshop

July 2, 2013 (Tuesday)
08:00-10:00

Session 1A : PEWiN (Performance Evaluation of Wireless Networks – W2)

Chair : Prof. Kun-Ming Yu, Chung Hua University, Taiwan

[1A-1] Techniques for Mitigating the Difference Between Cyber Systems and Physical Systems

Huang Hshin Wen (Chung Hua University, Taiwan); Chang Wu Yu (Chung Hua University Taiwan); Wen-Ching Tzeng (Chung Hua University, Taiwan); Shu Yu Tung (Chung Hua University, Taiwan)

[1A-2] An Intelligent Active Alert Application on Handheld Device for Emergency Evacuation Guidance

Chung-Chuo Wu (Chung Hua University, Taiwan); Kun-Ming V. Yu (Chung Hua University, Taiwan); Shao-Ting Chine (Chung Hua University, Taiwan); Shao-Tsai Cheng (Chung Hua University, Taiwan); Yuan-Shao Huang (Chung Hua University, Taiwan); Ming-Yuan Lei (Architecture and Building Research Institute, Taiwan); Jiann-Horng Lin (Architecture and Building Research Institute, Taiwan)

[1A-3] Dynamic Coverage Techniques in Mobile Wireless Sensor Networks

Yi Ning Chen (Chung Hua University, Taiwan); Chang Wu Yu (Chung Hua University, Taiwan); Ko-Jui Lin (Chung Hua University, Taiwan)

[1A-4] Safe Path Planning Strategy for Bike Net

Wen Ouyang (Chung Hua University, Taiwan); Chang Wu Yu (Chung Hua University, Taiwan); Kun-Ming V. Yu (Chung Hua University, Taiwan); Huai-Tse Chang (Chung Hua University, Taiwan); Ko-Jui Lin (Chung Hua University, Taiwan)

[1A-5] A Delivery Time-aware Hole Healing Scheme for Wireless Sensor Networks

Fu-Tian Lin (TungFang Design Institute, Taiwan); Chao-Yang Lee (National Cheng Kung University, Taiwan); Tien-Wen Sung (Hsing Kuo University, Taiwan); Chu-Sing Yang (National Cheng Kung University, Taiwan)

Session 1B : UCN (Underwater Communication Networks – W3)

Chair : Prof. Ji-Won Jung (Korea Maritime University, Korea)

[1B-1] MMSE Estimation with CFAR Detection for Underwater Communication Channel

Hyeonsu Kim (Inha University, Korea); Gunwoo Park (Inha University, Korea); Jaehak Chung (Inha University, Korea); Jin Seok Kim (Agency for Defense Development, Korea); Seongil Kim (Agency for Defense Development, Korea)

[1B-2] Application of an Underwater Communication Channel Simulator to Performance Evaluation

Se Hyun Oh (Sonartech Co. Ltd, Korea); Min Jeong Eom (Korea Maritime University, Korea); Jae Soo Kim (Korea Maritime University, Korea); Jeong-Woo Han (Korea Maritime University, Korea); Kiman Kim (Korea Maritime University, Korea)

[1B-3] MIMO Underwater Communication with Sparse Channel Estimation

Byung-Chul Gwun (Korea Maritime University, Korea); Jeong-Woo Han (Korea Maritime University, Korea); Kiman Kim (Korea Maritime University, Korea); Jiwon Jung (Korea Maritime University, Korea)

[1B-4] Vulnerabilities of Android Data Sharing and Malicious Application to Leaking Private Information

Taenam Cho (Woosuk University, Korea); Jae-Hyeong Kim (Woosuk University, Korea); Hyeok-Ju Cho (Woosuk University, Korea); Seung-Hyun Seo (Purdue University, USA); Seungjoo Kim (Korea University, Korea)

[1B-5] Optimizing of Iterative Turbo Equalizer for Underwater Acoustic Channel

Hae Chan Kwon (Korea Maritime University, Korea); Tae Doo Park (Korea Maritime University, Korea); Gunyeol Park (Korea Maritime University, Korea); Taehun Kim (Korea Maritime University, Korea); Kiman Kim (Korea Maritime University, Korea); Jiwon Jung (Korea Maritime University, Korea)

Session 1C : IWIV (Intelligent Vehicle – W4)

Chair : Prof. Dong Seog Han, Kyungpook National University, Korea

[1C-1] Design and Implementation of Intersection Movement Assistant Applications Using V2V Communications

Hyunsoo Seo (Hanyang University, Korea); Chang Jin Lee (Hanyang University, Korea); Dong Gyu Noh (Hyundai-Kia Motors, Korea); Sang-Sun Lee (Hanyang University, Korea)

[1C-2] Performance Analysis for Priority Based Broadcast in Vehicular Networks

Rinara Woo (Kyungpook National University, Korea); Dong Seog Han (Kyungpook National University, Korea)

[1C-3] A Simple Data Transmission Scheduling Method for Wireless Sensor Networks

Hyunwoo Kang (Electronics and Telecommunications Research Institute, Korea); Yun Su Chung (Electronics and Telecommunication Research Institute, Korea); Soo-In Lee (Electronics and Telecommunications Research Institute, Korea); Dongkyun Kim (Kyungpook National University, Korea)

[1C-4] Approach for PHY/MAC Cross-layer Design in Vehicular Ad-Hoc Networks

Jihoon Joo (Kyungpook National University, Korea); Hee Chang Lee (Kyungpook National University, Korea); Dong Seog Han (Kyungpook National University, Korea)

[1C-5] HIMALIS-C-ITS: Fast and Secure Mobility Management Scheme Based on HIMALIS for Cooperative ITS Service in Future Networks

Hong-Jong Jeong (Kyungpook National University, Korea); Ved P. Kafle (National Institute of Information and Communications Technology (NICT), Japan); Hongseok Yoo (Kyungpook National University, Korea); Dongkyun Kim (Kyungpook National University, Korea)

ICUFN 2013
Technical Sessions

July 2, 2013 (Tuesday)
10:15-12:15

Session 2A : PEWiN (Performance Evaluation of Wireless Networks – W2)

Chair : Prof. James C. W. Yu, Chung Hua University, Taiwan

[2A-1] Load Sharing for Mobile Agents Using Genetic Algorithms
Wang Tien (Hungkuang University, Taiwan)

[2A-2] A Trustworthy QoS-based Mechanism for Web Service Discovery Based on Collaborative Filtering
Szu-Yin Lin (Chung Yuan Christian University, Taiwan)

[2A-3] The Impact of the Transmission Power Range on Energy Consumption for Wireless Sensor Networks
Rei-Heng Cheng (YuanPei University, Taiwan); Huang Chiming (Hsuan Chuang University, Taiwan)

[2A-4] Improving System and Software Deployment on a Large -Scale Cloud Data Center
Tong-Ying Juang (National Taipei University, Taiwan)

[2A-5] Robustness of Community Structure Algorithm of Complex Network in the Task State Brain Function
Hongyong Li (Lanzhou University of Technology, P.R. China); Ming Ke (Lan zhou Univisity of Technology, P.R. China); Xuhui Chen (Xiamen University of Technology, P.R. China)

[2A-6] Active Black Holes Detection in Ad-Hoc Wireless Networks
Chun-Hsin Wang (Chung Hua University, Taiwan)

Session 2B : UCN (Underwater Communication Networks – W3)

Chair : Prof. Ho-Shin Cho (Kyungpook National University, Korea)

[2B-1] EERT-Energy Efficient Reliable Transport Protocol for Underwater Sensor Network
Awais Ahmad (Kyungpook National University, Daegu, S. Korea, Korea); Abdul Wahid (Kyungpook National University, Korea); Dongkyun Kim (Kyungpook National University, Korea); Jiman Hong (Soongsil University, Korea)

[2B-2] A Node-Grouped OFDMA for Multi-Cluster Underwater Sensor Networks
Jinyong Cheon (Kyungpook National University, Korea); Kweon Son (Agency for Defense Development, Korea); Sang-kug Lee (Agency for Defense Development, Korea); Ho-Shin Cho (Kyungpook National University, Korea)

[2B-3] Proposed Framework for Underwater Sensor Cloud for Environmental Monitoring
Srimathi C (VIT University, India); Soo-Hyun Park (Kookmin University, Korea); Rajesh N (VIT University, India)

[2B-4] Channel Reserved MAC Protocol for Underwater Sensor Networks
Youn-Seon Jang (Chungnam National University, Korea)

[2B-5] Water Tank Experiment on Forward Link Underwater Code Division Multiple Access Scheme
Bo-Min Seo (Kyungpook National University, Korea); Kweon Son (Agency for Defense Development, Korea); Sang-kug Lee (Agency for Defense Development, Korea); Ho-Shin Cho (Kyungpook National University, Korea)

Session 2C : IWIV (Intelligent Vehicle – W4)

Chair : Prof. Soon Ki Jung (Kyungpook National University, Korea)

[2C-1] AUTOSAR Unit Testing Approach Based on Virtual Prototyping for Software Components
Hodong Ryu (Kyungppok National University, Korea); Soo Young Jang (Kyungpook National University, Korea); Woojin Lee (Kyungpook National University, Korea)

[2C-2] Passenger Management System Based on Face Recognition for Intelligent Transport Vehicles
Byung-Gil Han (Electronics and Telecommunications Research Institute, Korea); Kil-Taek Lim (Electronics and Telecommunications Research Institute, Korea); Yun Su Chung (Electronics and Telecommunication Research Institute, Korea); Soo-In Lee (Electronics and Telecommunications Research Institute, Korea)

[2C-3] Geometric Feature Selection for Vehicle Pose Estimation on Dynamic Road Scenes
Jae Seok Jang (Kyungpook National University, Korea); Kwang Hee Won (Kyungpook National University, Korea); Soon Ki Jung (Kyungpook National University, Korea)

[2C-4] A Study on Test Automation of IVN of Intelligent Vehicle Using Model-based Testing
Kabsu Han (Kyungpook National University, Korea); InSick Son (Kyungpook National University, Korea); Jeonghun Cho (Kyungpook National University, Korea)

July 2, 2013 (Tuesday)
13:45-15:45

Session 3A : CRCN (Cognitive Radio Communications and Networks – W6)

Chair : Prof. Jaehak Chung(Inha University, Korea)

[3A-1] Spectrum Sharing Between Cellular Uplink and Device-to-Device Communication Systems
Gil-Mo Kang (Soongsil University, Korea); Oh-Soon Shin (Soongsil University, Korea)

[3A-2] Opportunistic Channel Reuse for a Self-organized Visible Light Communication Personal Area Network
Nirzhar Saha (Kookmin University, Korea); Ratan Kumar Mondal (Kookmin University, Korea); Yeong Min Jang (Kookmin University, Korea)

[3A-3] QoS Based Precoding Scheme in K-user MIMO Interference Channels
Jongpil Seo (Inha University, Korea); Jaeyoung Kim (Inha University, Korea); Chamsol Yang (Inha University, Korea); Jaehak Chung (Inha University, Korea)

[3A-4] A Cognitive Scheduling Method for Demand Response Ensured Home Energy Management
Zhuang Zhao (Soongsil University, Korea); Joo Pyoung Choi

(Soongsil University, Korea); Kyumin Park (Soongsil University, Korea); Won Cheol Lee (Soongsil University, Korea)

Session 3B : WATCN (Advanced Technology for Communication Networks – W1)

Chair : Prof. Ki-Hyung Kim (Ajou University, Korea)

[3B-1] Multiuser Precoding in MIMO Two-Way Relay Transmission

Vien Nguyen-Duy-Nhat (Danang University of Technology, Vietnam); Hung Nguyen-Le (Danang University of Technology, Vietnam); Chien Tang-Tan (Danang University of Technology, Vietnam); Mai Le-Thi-Phuong (Danang University of Technology Vietnam, Vietnam)

[3B-2] A Novel Handover Scheme in Moving Vehicular Femtocell Networks

Sunghun Chae (Kookmin University, Korea); Tuan Nguyen (Kookmin University, Korea); Yeong Min Jang (Kookmin University, Korea)

[3B-3] Wormhole Attack Prevention Mechanism for RPL based LLN networks

Faraz Idris Khan (Ajou University, Korea); Taeshik Shon (Ajou University, Korea); Taekkyeun Lee (Ajou University, Korea); Ki-Hyung Kim (Ajou University, Korea)

July 2, 2013 (Tuesday)
16:00-18:00

Session 4A : CRCN (Cognitive Radio Communications and Networks – W6)

Chair : Prof. Won Cheol Lee(Soongsil University, Korea)

[4A-1] Reliable Cluster-based Common Channel Setup Method for DSA CR Networks

Min-Gyu Kim (Inha University, Korea); Sang-jo Yoo (Inha University, Korea); Yong-Up Jang (Agency for Defense Development, Korea); Kwang-Eog Lee (Agency for Defense Development, Korea)

[4A-2] Location-Based Subcarrier Allocation Scheme for Secondary Systems in Cognitive Radios

Kwangyul Kim (Soongsil University, Korea); Honggyu Jung (Soongsil University, Korea); Junsu Kim (Korea Polytechnic University, Korea); Yoan Shin (Soongsil University, Korea)

[4A-3] On the Capacity of Secondary Networks Over Opportunistic Spectrum Access in Rayleigh Fading Channels

Mohammed Adel Abdel-Hafez (United Arab Emirates University, UAE); Omkalthoum ElBashir (UAEU, UAE); Khaled Shuaib (United Arab Emirates University, UAE)

[4A-4] Implementation of Spectrum Sensing Platform for Cognitive Radio Systems

Hoiyoon Jung (ETRI, Korea); Sang-Won Kim (ETRI, Korea); Sun Min Lim (ETRI, Korea); Byung Jang Jeong (ETRI, Korea)

July 3, 2013 (Wednesday)
13:30-15:30

Session 7C : OWLED (Optical-Wireless LED Communication Techniques – W5)

Chair : Prof. Yeong Min Jang (Kookmin University, Korea)

[7C-1] Performance Improvement of Visible Light Communications Using Optical Beamforming

Sung-Man Kim(Kyungsung University,Korea); Seong-Min Kim(Kyungsung University,Korea)

[7C-2] A Pre-Scanning-Based Link Switching Scheme in Visible Light Communication Networks

Tuan Nguyen (Kookmin University, Korea); Yeong Min Jang (Kookmin University, Korea)

[7C-3] BER Analysis of MIMO/FSO Systems Using Rectangular QAM Over Gamma-Gamma Channels

Bach Vu (The University of Aizu, Japan); Truong Cong Thang (The University of Aizu, Japan); Anh T. Pham (The University of Aizu, Japan)

[7C-4] Design of Multi-Spectral Coded VPPM for Optical Wireless LED Communications

Hyeon-Cheol Kim (Yeungnam University, Korea); Jong-Ho Yoo (Yeungnam University, Korea); Jun-Pyo Jeon (Korea Advanced Institute of Science and Technology, Korea); Sung-yoon Jung (Yeungnam University, Korea)

[7C-5] Performance Analysis of M-ary PPM in Dimmable Visible Light Communications

Rimhwan Lee (Yeungnam University, Korea); Kyungsu Yun (Yeungnam University, Korea); Jong-Ho Yoo (Yeungnam University, Korea); Sung-yoon Jung (Yeungnam University, Korea); JaeKyun Kwon (Yeungnam University, Korea)

[7C-6] Performance Analysis on MAC Protocol Based on Beacon-Enabled Visible Personal Area Networks

Junho Hwang (Soongsil University, Korea); Trong-Hop Do (Soongsil University, Korea); Myungsik Yoo (Soongsil University, Korea)

July 3, 2013 (Wednesday)
16:00-18:00

Session 8C : OWLED (Optical-Wireless LED Communication Techniques – W5)

Chair : Prof. Sung-yoon Jung (Yeungnam University, Korea)

[8C-1] TDoA Based Indoor Visible Light Positioning Systems

Trong-Hop Do (Soongsil University, Korea); Junho Hwang (Soongsil University, Korea);Myungsik Yoo (Soongsil University, Korea)

[8C-2] Space-Time Forward Error Correction for Dimmable Undersampled Frequency Shift ONOFF Keying Camera Communications (CamCom)

Richard D Roberts (Intel Corporation, USA)

[8C-3] Demonstration of Vehicular Visible Light Communication Based on LED Headlamp

Jong-Ho Yoo (Yeungnam University, Korea); Rimhwan Lee (Yeungnam University, Korea); Jun-Kyu Oh (LED-IT Fusion Technology Research Center, Korea); Hyun-Wook Seo (LED-IT Fusion Technology Research Center, Korea); Ju-Young Kim (LED-IT fution Technology research

center, Korea); Hyeon-Cheol Kim (Yeungnam University, Korea);
Sung-yoon Jung (Yeungnam University, Korea)

[8C-4] Three-Dimensional Localization Based on Visible Light Optical Wireless Communication

Se-Hoon Yang (Yonsei University, Korea); Eun-Mi Jeong (Yonsei University, Korea); Deok-Rae Kim (Yonsei University, Korea); Hyun-Seung Kim (Yonsei University, Korea); Yong-Hwan Son (Yonsei University, Korea); Sang-Kook Han (Yonsei University, Korea)

[8C-5] Estimated Position Error Compensation in Localization Using Visible Light Communication

Eun-Mi Jeong (Yonsei University, Korea); Deok-Rae Kim (Yonsei University, Korea); Se-Hoon Yang (Yonsei University, Korea); Hyun-Seung Kim (Yonsei University, Korea); Yong-Hwan Son (Yonsei University, Korea); Sang-Kook Han (Yonsei University, Korea)

Technical Sessions

July 3, 2013 (Wednesday)
08:00-09:20

Session 5A : Network Security I

Chair : Prof. Sunwoong Choi (Kookmin University, Korea)

[5A-1] A Novel Challenge & Response Scheme Against Selective Forwarding Attacks in MANETs

Thongchai Chuachan (Mahasarakham University, Thailand); Somnuk Puangpronpitag (Mahasarakham University, Thailand)

[5A-2] Fingerprint-based User Authentication Scheme for Home Healthcare System

Qiuyan Jin (Sungkyunkwan University, Korea); Woongryul Jeon (Sungkyunkwan University, Korea); Changwhan Lee (Sungkyunkwan University, Korea); Youngchul Choi (Security Global Alliance, Korea); Dongho Won (Sungkyunkwan University, Korea)

[5A-3] Security and Privacy Enhancement in VANETs Using Mobility Pattern

Fuad A, Ghaleb (UTM, Malaysia); Mohammad Abdur Razzaque (Universiti Teknologi Malaysia, Malaysia); Ismail Fauzi Isnin (Universiti Teknologi Malaysia, Malaysia)

[5A-4] A Secure Handshake Scheme for Mobile-hierarchy City Intelligent Transportation System

Shuai Li (Beijing Institute of Technology, P.R. China); Peng Gong (Beijing Institute of Technology, P.R. China); Qian Yang (Beijing Institute of Technology, P.R. China); Mingguan Li (Beijing Institute of Technology, P.R. China); Jiejun Kong (University of Florida, USA); Ping Li (Beijing Institute of Technology, P.R. China)

Session 5B : Wireless Sensor Network I

Chair : Prof. Ji-Woong Choi (DGIST, Korea)

[5B-1] IPv4/IPv6 Transition Mechanisms for Ubiquitous Wireless Sensor Networks Monitoring

André G. F. Elias (Instituto de Telecomunicações, University of Beira Interior, Portugal); Joel J. P. C. Rodrigues (Instituto de Telecomunicações, University of Beira Interior, Portugal); Luís M. L Oliveira (IT, UBI and Polytechnic Institute of Tomar, Portugal); Liang Zhou (Nanjing University of Posts and Telecommunications, P.R. China)

[5B-2] A Novel Hardware Efficient FIR Filter for Wireless Sensor Networks

Cheng Xu (Hunan University, P.R. China); Su Yin (Hunan University,, P.R. China); Yunchuan Qin (Hunan University, P.R. China); Hanzheng Zou (Hunan University, P.R. China)

[5B-3] High Efficient Multiple Sensing Information Gathering for Wireless Sensor Networks

Takeo Fujii (The University of Electro-Communications, Japan); Mai Ohta (The University of Electro-Communications, Japan); Tomomi Endo (The University of Electro-Communications, Japan)

[5B-4] Frequency Assigned Information Gathering Method for Motion-Capture in Wireless Sensor Networks

Shunta Sakai (The University of Electro-Communications, Japan); Tomomi Endo (The University of Electro-Communications, Japan); Takeo Fujii (The University of Electro-Communications, Japan)

Session 5C : Wireless Local Area Network I

Chair : Prof. Ihn-Han Bae (Catholic University of Daegu, Korea)

[5C-1] An Improvement of TCP Performance Over Wireless Networks

Thi-Ha Nguyen (SoongSil University, Korea); Minho Park (SoongSil University, Korea); Souhwan Jung (Soongsil University, Korea)

[5C-2] Carrier Sensing Multiple Access with Collision Resolution (CSMA/CR) Protocol for Next-Generation Wireless LAN

Hyun-Ho Choi (Hankyong National University, Korea); Howon Lee (Hankyong National University, Korea); In-Ho Lee (Hankyong National University, Korea)

[5C-3] Performance of Constant Power Allocated Channel-Adaptive Random Access with Imperfect Channel Reciprocity

Ingil Ryu (Hanyang University, Korea); Hichan Moon (Hanyang University, Korea)

[5C-4] X-MAC Protocol with Collision Avoidance Algorithm

Ayaz Ullah (University of Dongguk, Korea); Ahn Jongsuk (University of Dongguk, Korea); Kim Gayoung (University of Dongguk, Korea)

July 3, 2013 (Wednesday)
09:30-10:50

Session 6A: Network Security II

Chair : Prof. Souhwan Jung (Soongsil University, Korea)

[6A-1] Lightweight Detecting and Resolving Algorithm for Firewall Policy Conflict

Qi Xiao (Hunan University, P.R. China); Qin Yunchuan (Hunan University, P.R. China); Xu Cheng (HNU, P.R. China); Kenli Li (University of Hunan, P.R. China)

[6A-2] A Fast and Efficient Authentication Scheme for WAVE Unicast Services in Vehicular Networks

Atthapol Suwannasa (Mahasarakham University, Thailand); Somnuk Puangpronpitag (Mahasarakham University, Thailand)

[6A-3] SAKES: Secure Authentication and Key Establishment Scheme for M2M Communication in the IP-Based Wireless Sensor Network (6LoWPAN)

Hassen Redwan (Ajou University, Korea); Gebere Tizazu (Ajou University, Korea); Ting Miao (Ajou University, Korea); Taekkyeun Lee (Ajou University, Korea); Young-June Choi (Ajou University, Korea); Ki-Hyung Kim (Ajou University, Korea)

[6A-4] A Memory Efficient FPGA-based Pattern Matching Engine for Stateful NIDS

Tran Trung Hieu(HCMC University of Technology, Vietnam); Tran Ngoc Thinh (Ho Chi Minh City University of Technology, Vietnam)

Session 6B : Wireless Sensor Network II

Chair : Prof. Takeo Fujii (The University of Electro-Communications, Japen)

[6B-1] UMRC: Multichannel and Multihop Clustering Communication for Improving Performance of Wireless Sensor Networks

Kieu-Ha Phung (Vrije Universiteit Brussels, Belgium); Thu Ngo-Quynh (HUST, Vietnam); Hung Vu-Manh (Hanoi University of Science and Technology, Vietnam)

[6B-2] Target Tracking System Using Lateration Estimation Method in Wireless Sensor Networks

Vinh Tran-Quang (Hanoi University of Science and Technology, Vietnam); Hung Nguyen-Khanh (Hanoi University of Science and Technology, Vietnam); Thu Ngo-Quynh (HUST, Vietnam)

[6B-3] A Forwarder Selection Method for Greedy Mode Operation of a Geographic Routing Protocol in a WSN

Jaesung Park (Suwon University, Korea); Yong Nyeon Kim (University of Suwon, Korea); Jin Yong Byun (University of Suwon, Korea)

[6B-4] An Energy Efficient and Reliable ARQ Scheme (E²R-ACK) for Wireless Sensor Networks

Jaiyong Lee (Yonsei University, Korea); Jaeho Lee (National Information-Society Agency, Korea)

Session 6C : Wireless Local Area Network II

Chair : Prof. Sung-yoon Jung (Yeungnam University, Korea)

[6C-1] Assuring Per-station Fairness in Multi-Rate WLANs: A Hybrid Approach of Contention Window Control and Frame Aggregation

Muhammad Adnan (Dongguk University, Korea); Eun-Chan Park (Dongguk University, Korea)

[6C-2] Sender-Initiated Reservations for Reducing Collisions in 802.11 MAC

Xiao Ying Lei (Kwangwoon University, Korea); Seung Hyong Rhee (Kwangwoon University, Korea)

[6C-3] A Novel Metric for Dynamic Channel Assignment in Enterprise Wireless Networks

Seongwon Kim (Seoul National University, Korea); Seungmin Yoo (Seoul National University, Korea); Yeonchul Shin (Seoul National University, Korea); Sunghyun Choi (Seoul National University, Korea)

[6C-4] Harnessing Self-Cancellation for Coexistence of Wi-Fi and Bluetooth

Wonhong Jeon (DGIST, Korea); Sungmin Han (DGIST, Korea); Ji-Woong Choi (DGIST, Korea); Kyung-Joon Park (DGIST, Korea)

July 3, 2013 (Wednesday)
13:50-15:50

Session 7A : MIMO and Cooperative Communication

Chair : Prof. Dongkyun Kim (Kyungpook National University, Korea)

[7A-1] An Interference-Robust Channel Estimation Method for MU-MIMO Transmission in LTE-Advanced System

Won Jun Hwang (Sungkyunkwan University, Korea); Junhee Jang (Sungkyunkwan University, Korea); Hyung-Jin Choi (SungKyunKwan University, Korea)

[7A-2] Average Capacity of MIMO/FSO Systems with Equal Gain Combining Over Log-Normal Channels

Duy A. Luong (The University of Aizu, Japan); Truong Cong Thang (The University of Aizu, Japan); Anh T. Pham (The University of Aizu, Japan)

[7A-3] Low Complexity Lattice Reduction Aided Precoding and Detection for Multiuser MIMO Systems

Md. Hashem Ali Khan (Chonbuk National University, Korea); Moon Ho Lee (Chonbuk National University, Korea)

[7A-4] Particle Swarm Optimization Based Power Allocation in DF Cooperative Communications

Zhiquan Bai (Shandong University, P.R. China); Yinlong Xu (Shandong University, P.R. China); Peihao Dong (Shandong University, P.R. China); Peng Gong (Beijing Institute of Technology, P.R. China); Kyung Sup Kwak (Inha University, Korea)

[7A-5] Locally Exploitable Heterogeneous Multihop Communications Applied to Cooperative-robots

Akira Tanaka (Tokyo National College of Technology, Japan)

[7A-6] ProRATE: Obtaining the Potential Throughput From the System View in Two-way Relay Networks

Lingyun Zhu (Fudan University, P.R. China); Hai Wang (Fudan University, P.R. China); Xin Wang (Fudan University, P.R. China); Yu Zhu (Fudan University, P.R. China); Azman Osman Lim (Japan Advanced Institute of Science and Technology (JAIST), Japan)

Session 7B : VANET & ITS

Chair : Thomas Finke (Heilbronn University, Germany)

[7B-1] A VANET Routing Based on the Real-time Road Vehicle Density in the City Environment

Hyun Yoo (University of Seoul, Korea); Sanghyun Ahn (University of Seoul, Korea); Joon Yoo (Gachon University, Korea)

[7B-2] ACK-based Broadcast Protocol for Vehicular Ad Hoc Networks

Ajmal Khan (Kyungpook National University, Korea); Jae-Choong Nam (Kyungpook National University, Korea); You-Ze Cho (Kyungpook National University, Korea)

[7B-3] Designing an Enhanced Route Guided Navigation for Intelligent Vehicular System (ITS)

Md. Humaun Kabir (Inha University, Korea); Md Nasre Alam (Inha University, Korea); Kyung Sup Kwak (Inha University, Korea)

[7B-4] Cross-Layer Optimization of Vehicle-to-Vehicle Video Streaming for Overtaking Maneuver Assistance Systems

Somnuk Puangpronpitag (Mahasarakham University, Thailand); Piyawad Kasabai (Mahasarakham University, Thailand); Atthapol Suwannasa (Mahasarakham University, Thailand)

[7B-5] Intersection-Priority Based Optimal RSU Allocation for VANET

Soyoung Park (Konkuk University, Korea); Jeonghee Chi (Konkuk University, Korea); Yeongwon Jo (Konkuk University, Korea); Hyunsun Park (Konkuk University, Korea)

[7B-6] A Seamless Handover Scheme for IEEE WAVE Networks Based on Multi-way Proactive Caching

Hyukjoon Lee (Kwangwoon University, Korea); Young-Uk Chung (Kwangwoon University, Korea); Yong-Hoon Choi (Kwangwoon University, Korea)

July 3, 2013 (Wednesday)
16:20-18:20

Session 8A: Application I

Chair : Prof. Dong Seog Han (Kyungpook National University, Korea)

[8A-1] Design Framework for Ontology Based Interactive E-health Services

Wasin Passornpakorn (Prince of Songkla University, Thailand); Sinchai Kamolphiwong (Prince of Songkla University, Thailand); Thossaporn Kamolphiwong (Prince of Songkla University, Thailand); Verapol Chandeeying (Prince of Songkla University, Thailand)

[8A-2] Automated Methodology for Gastric Endoscopy in an E-Health Environment

Suk Kyu Lee (Korea University, Korea); Eugene Kim (Korea University, Korea); Seungho Yoo (Korea University, Korea); Hwangnam Kim (Korea University, Korea)

[8A-3] VoIP Quality of Experience: A Study of Perceptual Voice Quality From G.729, G.711 and G.722 with Thai Users Referring to Delay Effects

Pongpisit Wuttidittachotti (King Mongkut's University of Technology North Bangkok, Thailand); Therdpong Daengsi (Faculty of Information Technology, King Mongkut's University of Technology North Bangkok, Thailand); Chai Wutiwiwatchai (Speech and Audio Technology Laboratory, NECTEC, Thailand); Apiruck Preechayasomboon (Metropolitan Sale and Services 3, TOT, Thailand); Saowanit Sukparungsee (Department of Applied Statistics, Faculty of Applied Science, KMUTNB, Thailand)

[8A-4] VoIP Quality of Experience: A Proposed Subjective MOS Estimation Model Based-on Thai Users

Therdpong Daengsi (Faculty of Information Technology, King Mongkut's

University of Technology North Bangkok, Thailand); Pongpisit Wuttidittachotti (King Mongkut's University of Technology North Bangkok, Thailand); Chai Wutiwiwatchai (Speech and Audio Technology Laboratory, NECTEC, Thailand); Apiruck Preechayasomboon (Metropolitan Sale and Services 3, TOT, Thailand); Saowanit Sukparungsee (Department of Applied Statistics, Faculty of Applied Science, KMUTNB, Thailand)

[8A-5] N-Screen Smart TV Contents Personalization System Using Adaptive Hybrid Similarity Approach

Farman Ullah (Korea Aerospace University, Korea); Ghulam Sarwar (Korea Aerospace University, Korea); Sung Chang Lee (Korea Aerospace University, Korea)

[8A-6] A Library for RTP Relaying and QoS Monitoring in Application Layer Multicast

Valerio De Luca (University of Salento, Italy); Franco Tommasi (University of Salento, Italy); Catiuscia Melle (University of Salento, Italy)

Session 8B : Mobile Network

Chair : Prof. Khuong Ho-Van (Hanoi University of Science and Technology, Vietnam)

[8B-1] A Mobility Prediction Algorithm for the Seamless Handoff

Chuyen Luong (Chonnam National University, Korea); Thang Hoang (Chonnam National University, Korea); Deokjai Choi (Chonnam National University, Korea)

[8B-2] High Throughput LDPC Decoder Architecture for DVB-S2

Taehun Kim (Korea Maritime University, Korea); Tae Doo Park (Korea Maritime University, Korea); Gunyeol Park (Korea Maritime University, Korea); Hae Chan Kwon (Korea Marintime University, Korea); Jiwon Jung (Korea Maritime University, Korea)

[8B-3] Implementing WiMAX Signal Detecion Using Reconfigurable Processor

Nuzli Mohamad Anas (University Teknologi Malaysia, Malaysia); Mohamad Yusri Mohamad Yusof (Mimos Berhad, Malaysia)

[8B-4] Toward A Full Implementation of SCIM Functional Block in IMS Framework

Nguyen Tai Hung (Hanoi University of Technology, Vietnam); Nguyen Huu Thanh (Hanoi University of Science and Technology, Vietnam); Julius Mueller (Technische Universität Berlin, Germany); Thomas Magedanz (TU Berlin / Fraunhofer FOKUS, Germany)

[8B-5] Mobile Device Based HRV Analysis System

Hoang ChuDuc (Hanoi University of Science and Technology, Vietnam); Duong Luong (Hanoi University of Science and Technology, Vietnam); Nguyen Thuan (Hanoi University of Science and Technology, Vietnam); Trinh Duc (Hanoi University of Science and Technology, Vietnam)

[8B-6] Exploiting User Movement Direction and Hidden Access Point for Smartphone Localization

Eugene Kim (Korea University, Korea); Seungho Yoo (Korea University, Korea); Hwangnam Kim (Korea University, Korea)

July 4, 2013 (Thursday)
09:20-10:20

ICUFN 2013

Technical Sessions

Session 9A : Wireless Sensor Network III

Chair : Prof. Dongkyun Kim (Kyungpook National University, Korea)

[9A-1] Underwater Hybrid Routing Protocol for UWSNs

Sungwon Lee (Kyungpook National University, Korea); Dongkyun Kim (Kyungpook National University, Korea)

[9A-2] An Energy Efficient MAC Protocol for WBAN Through Flexible Frame Structure

JunSung Choi (Korea Polytechnic University, Korea); JeongGon Kim (Korea Polytechnic University, Korea)

[9A-3] Study on Limitation of Removal of Baseline Noise From Electrocardiography Signal in Measurement Using Wavelet Analysis

Duong Trong Luong (Hanoi University of Science and Technology, Vietnam); Chu Hoang (Hanoi University of Science and Technology, Vietnam); Nguyen Trang (Hanoi University of Science and Technology, Vietnam); Trinh Duc (Hanoi University of Science and Technology, Vietnam); Nguyen Thuan (Hanoi University of Science and Technology, Vietnam)

Session 9B : Application II

Chair : Dr. Richard D Roberts (Intel, USA)

[9B-1] Towards a Semantic-aware Indoor Location Estimation for Smart-phones

Ali Yavari (KTH Royal Institute of Technology, Sweden); Zary Segall (KTH Royal Institute of Technology, Sweden)

[9B-2] Circle-Mesh Overlay for P2P-based RTCWeb Conferencing System

Tho Hoanh Huu Le (SoongSil University, Korea); YoungHan Kim (SoongSil University, Korea)

[9B-3] Cloud Computing for u-Health and Automotive Environment

Minwoo Jung (Kyungpook National University, Korea); Kabsu Han (Kyungpook National University, Korea); Jeonghun Cho (Kyungpook National University, Korea)

Session 9C : Cognitive Radio I

Chair : Dr. Seung-Hyun Seo (Purdue University, USA)

[9C-1] Outage Behaviour of Cooperative Underlay Cognitive Networks with Inaccurate Channel Estimation

Khuong Ho-Van (HoChiMinh City University of Technology, Vietnam); Sofotasios C. Paschalis (University of Leeds, United Kingdom)

[9C-2] Cooperative Spectrum Sensing with Adaptive Node Selection for Cognitive Radio Networks

Taiping Cui (Inha University, Korea); Kyung Sup Kwak (Inha University, Korea)

[9C-3] Wireless Spectrum Allocation by Simulated Annealing

Charles Fleming (Xi'an Jiaotong-Liverpool University, P.R. China); Xing Zhou (Xi'an Jiaotong-Liverpool University, P.R. China); Haining Liang (Xi'an Jiaotong Liverpool University, P.R. China)

July 4, 2013 (Thursday)
10:30-12:00

Session 10A : Future Network I

Chair : Prof. Ki-Hyung Kim (Ajou University, Korea)

[10A-1] Name-Based Routing for Information Centric Future Internet Architectures

Mofassir Haque (University of Canterbury, New Zealand); Krzysztof Pawlikowski (University of Canterbury, New Zealand); Andreas Willig (University of Canterbury, New Zealand); Ludger Bischofs (University Of Canterbury, New Zealand)

[10A-2] CenLavi: Virtual Computer Network Laboratory

Ngoc Hong Tran (University of Science, HCMC-VNU, Vietnam); Tan Cao (University of Science, VNU-HCM, Vietnam); Petteri Kaskenpalo (Aukland Technical University, New Zealand); Hoa Tran (Aukland Technical University, Vietnam); Dat Luu (Auckland University of Technology, Vietnam); Phong Chiem (Aukland Technical University, Vietnam)

[10A-3] A New Scheme for Network Topology Management in Policy and Charging Control Architecture

Soonuk Seol (Korea University of Technology and Education, Korea); Sungsoo Cho (Advanced Institute of Technology, KT, Korea)

[10A-4] A Sequential Reading Strategy to Improve the Performance of RFID Anti-collision Algorithm in Dense Tag Environments

Sunil Dhakal (Chosun University, Korea); Seokjoo Shin (Chosun University, Korea)

Session 10B : Cognitive Radio II

Chair : Prof. Won Cheol Lee(Soongsil University, Korea)

[10B-1] Optimal Sensing Interval Considering Per-Primary Transmission Protection in Cognitive Radio Networks

Jae-Kark Choi (Inha University, Korea); Sang-jo Yoo (Inha University, Korea)

[10B-2] Cognitive Cooperative Networks with Cluster-Based Relaying Under Interference Constraints

Hung Tran (National Institute of Education Management, Vietnam); Hans-Juergen Zepernick (Blekinge Institute of Technology, Sweden); Hoc Phan (Blekinge Institute of Technology, Sweden); Trinh Quang (31 -Phan Dinh Giot Street, Hanoi, Sweden)

[10B-3] Game-Theoretic Analysis of Selfish Secondary Users in Cognitive Radio Networks

Halefom Zerihun (Ajou Unversity, Korea); Young-June Choi (Ajou University, Korea)

[10B-4] A Robust STBC Based Dynamical Clustering Cooperative Spectrum Sensing Scheme in CR Systems

Bing Wang (Shandong University, P.R. China); Zhiquan Bai (Shandong University, P.R. China); Yinlong Xu (Shandong University, P.R. China); Peng Gong (Beijing Institute of Technology, P.R. China); Kyung Sup Kwak (Inha University, Korea)

Session 10C : Future Network II

Chair : Prof. Sung-Man Kim (Kyungsung University, Korea)

[10C-1] Path Failure Detection and Session Recovery Mechanism in Multihomed HIMALIS Network

Ved P. Kafle (National Institute of Information and Communications

Technology (NICT), Japan); Yusuke Fukushima (National Institute of Information and Communications Technology, Japan); Hiroaki Harai (National Institute of Information and Communications Technology, Japan)

[10C-2] Merging Existing Network Nodes Into A New Combined Node

Bup-Joong Kim (ETRI, Korea); Yung-Wook Ra (ETRI, Korea); Bheom-Soon Joo (ETRI, Korea); Jong-Hyun Lee (ETRI, Korea)

[10C-3] Improving the Video Transmission Quality Over IP Network

Thang Cao (University of Economic and Technical Industries, Vietnam); Thuc Hai Nguyen (Hanoi University of Science and Technology Hanoi, Vietnam); Linh Giang Nguyen (Hanoi University of Science and Technology Hanoi, Vietnam)

[10C-4] 6LoWPAN Based Neighborhood Area Network for a Smart Grid Communication Infrastructure

Dong Chen (The University of Newcastle, Australia); Jason Brown (University of Newcastle, Australia); Jamil Y Khan (The University of Newcastle, Australia)

July 4, 2013 (Thursday)
13:30-15:30

Session 11A : Application III

Chair : Prof. Jaesung Park (Suwon University, Korea)

[11A-1] Battery Management System by Using CAN Communication Based on DSP Platform

Jeong-Hyo Bae (Korea Electrotechnology Research Institute, Korea); Bai Zhiguo (Korea Electrotechnology Research Institute, Korea); Bong-Jun Koo (Korea Electrotechnology Research Institute, Korea); Hong-Ryoung Kim (Korea Electrotechnology Research Institute, Korea); Dae-Gyeong Jang (Korea Electrotechnology Research Institute, Korea)

[11A-2] Energy Efficient Gas Emission Monitoring Systems Using Wireless Sensor Networks

Mohammad Abdur Razzaque (Universiti Teknologi Malaysia, Malaysia); Md Adnan (University of Technology Malaysia, Malaysia); Abdul Hanan Abdullah (University Technology of Malaysia, Malaysia)

[11A-3] Architecture of a Network Performance Monitor for Application Services on Multi-Clouds

Young-min Kim (Chung-Ang University, Korea); Ki-sung Lee (Chung-Ang University, Korea); Jae-cheol Uhm (Chung-Ang University, Korea); Si-chang Kim (Chung-Ang University, Korea); Minsuk Song (Samsung Electronics, Korea); Honguk Woo (Samsung Electronics, Korea); Lee Chan-gun (Chung-Ang University, Korea)

[11A-4] A Low Computational Equalization Method for Capsule Endoscope System

Joon Young Son (SungKyunKwan University, Korea); Kyung Hoon Won (Sungkyunkwan, Korea); Hyung-Jin Choi (SungKyunKwan University, Korea); Kiyun Kim (Myongji College, Korea); Sung Il Seo (IntroMedic, Korea); YoungDae Seo (Intromedic, Korea)

[11A-5] Traffic Analysis of the Live P2P Personal Broadcasting Service in the Campus Network

Young-Tae Han (KAIST, Korea); Bokrae Jung (Sungkyul Univ., Korea); Hong-Shik Park (Korea Advanced Institute of Science and Technology (KAIST), Korea)

[11A-6] 70/80 GHz GaAs MMIC Receiver with 4th SHP Mixer

Bong-Su Kim (ETRI, Korea); Woo-Jin Byun (ETRI, Korea); Min-soo Kang (ETRI, Korea); Kwang-Seon Kim (ETRI, Korea); Myung-Sun Song (ETRI, Korea)

Session 11B : Cognitive Radio III

Chair : Prof. Charles Fleming (Xi'an Jiaotong Liverpool University, P.R. China)

[11B-1] Efficient Resource Scheduling Algorithm for the Reconfiguration of a Cognitive Radio Terminal

Wenzhu Zhang (Xidian University, P.R. China); Kyung Sup Kwak (Inha University, Korea); Xingyuan Yin (Xidian University, P.R. China)

[11B-2] Bit Error Rate of Underlay Multi-hop Cognitive Networks in the Presence of Multipath Fading

Khuong Ho-Van (HoChiMinh City University of Technology, Vietnam); Sofotasios C. Paschalis (University of Leeds, United Kingdom)

[11B-3] Low Rate Common Control Channel Based AODV Routing Protocol for Cognitive Radio Ad-hoc Networks

Minglu Jin (Dalian University of Technology, P.R. China); Satish Anamalamudi (Dalian University of Technology, P.R. China)

[11B-4] Outage Performance of Cognitive Radio Networks Under Outage Constraint of Multiple Primary Users and Transmit Power Constraint of Secondary User

Hung Tran (National Institute of Education Management, Vietnam); Hans-Juergen Zepernick (Blekinge Institute of Technology, Sweden); Chan Thai (IFSTTAR, France)

[11B-5] Decomposition Analysis with Layered Structure for Cognitive Network Resources

Qin Liu (Xidian University, P.R. China); Kyung Sup Kwak (Inha University, Korea)

[11B-6] Overlap Regions and Grey Model-Based Approach for Interference Avoidance in Cognitive Radio Networks

Thao Quach (University Bordeaux 1, France); Mohamed Aymen Chalouf (IRISA Lab -University of Rennes 1, France); Hicham Khalife (Thales Communications & Security, France); Dramane Ouattara (Labri, France); Francine Krief (University of Bordeaux, France)

Invited Session : Cyber-Physical Systems, Networks, and Applications

Chair : Prof. Kyung-Joon Park (DGIST, Korea)

[Invited-1] FASE: Fast Authentication System for E-health

Mungyu Bae (Korea University, Korea); Suk Kyu Lee (Korea University, Korea); Seungho Yoo (Korea University, Korea); Hwangnam Kim (Korea University, Korea)

[Invited-2] Adaptive Tuning of IEEE 802.11e EDCA for Medical-Grade QoS

Sunghwa Son (Daegu Gyeongbuk Institute of Science & Technology, Korea); Kyung-Joon Park (DGIST, Korea); Eun-Chan Park (Dongguk University, Korea)

[Invited-3] Adaptive Beacon Rate Control Algorithm for Vehicular Ad-Hoc Networks

Hoa-Hung Nguyen (Pusan National University, Korea); Han-You Jeong (Pusan National University, Korea)

[Invited-4] Efficient Resource Allocation for M2M Half Duplex FDD (H-FDD) Systems

Jihwan P. Choi (Daegu Gyeongbuk Institute of Science and Technology, Korea); Jaesub Shin (Daegu Gyeongbuk Institute of Science & Technology (DGIST), Korea); Jungwon Lee (Samsung US R&D Center, USA); Ji-Woong Choi (DGIST, Korea)

[Invited-5] A Lightweight Prefix-based Routing for Content-Centric Networking

Sung-Won Lee (Ajou University, Korea); Jisoo Ha (Ajou University, Korea); Young-Bae Ko (Ajou University, Korea)

July 4, 2013 (Thursday)
16:00-18:20

Session 12A : Visible Light Communication

Chair : Prof. Seung Hyong Rhee (Kwangwoon University, Korea)

[12A-1] Receiver Initiated ARQ Scheme for LED-ID Link Switching

Nam Tuan Le (Kookmin university, Korea); Yeong Min Jang (Kookmin University, Korea)

[12A-2] Broadcasting MAC Protocol for IEEE 802.15.7 Visible Light Communication

Nam Tuan Le (Kookmin university, Korea); Yeong Min Jang (Kookmin University, Korea)

[12A-3] Color-Independent OFDM-based Visible Light Communication

Pankaz Das (Kookmin University, Korea); Youngil Park (Kookmin University, Korea); Ki-Doo Kim (Kookmin University, Korea)

[12A-4] Indoor Optical Wireless Communications Employing Corner Cube Retroreflector for Health Monitoring System

Wasinee Noonpakdee (Thammasat University, Thailand)

[12A-5] Iterative Node Localization for Intelligent Street Lighting

Natasa Jovanovic (Eindhoven University of Technology, The Netherlands); Johan J. Lukkien (Eindhoven University of Technology, The Netherlands); Richard Verhoeven (Eindhoven University of Technology, The Netherlands); Zharko Aleksovski (Philips Research, The Netherlands)

[12A-6] Throughput Analysis of TCP Over Visible Light Communication Indoor Networks

Vuong Mai (The University of Aizu, Japan); Truong Cong Thang (The University of Aizu, Japan); Anh T. Pham (The University of Aizu, Japan)

[12A-7] Joint Scheduling and Rate Allocation for IEEE 802.15.7 WPAN System

Ratan Kumar Mondal (Kookmin University, Korea); Nirzhar Saha (Kookmin University, Korea); Yeong Min Jang (Kookmin University, Korea)

Session 12B : MANET

Chair : Prof. Akira Tanaka (Tokyo National College of Technology, Japan)

[12B-1] A Virtual-Force Based Multicast Routing Algorithm for Mobile Ad-hoc Networks

Murali Parameswaran (Birla Institute of Technology and Science, Pilani, India); Vatsal Rastogi (Birla Institute of Technology and Science, Pilani, India); Chittaranjan Hota (Birla Institute of Technology & Science, Pilani, Hyderabad Campus, India)

[12B-2] A Community-Based Routing Algorithm for Opportunistic Networks

Xuebin Ma (Inner Mongolia University, P.R. China); Xiangyu Bai (Inner Mongolia University, P.R. China)

[12B-3] Latency Avoidance by Route Assumption for Reactive Routing Protocols

Thomas Roland Finke (Heilbronn University, Germany); Kilian Klaric (University of Applied Sciences Heilbronn, Germany); Juergen Schroeder (Heilbronn University, Germany); Sebastian Schellenberg (Ilmenau University of Technology, Germany); Markus Hager (Ilmenau University of Technology, Germany); Jochen Seitz (Technische Universitaet Ilmenau, Germany)

[12B-4] A Mechanism to Improve Spatiality in Directional MAC for Wireless Ad-Hoc Networks

Md Nasre Alam (Inha University, Korea); Md Hussain (Inha University, Korea); Md. Humaun Kabir (Inha University, Korea); Pervez Khan (Inha University, Korea); Kyung Sup Kwak (Inha University, Korea)

[12B-5] Optimized MAC and Network Cross Layer Protocol for OFDMA Based Ad-hoc Networks

Khanh Nguyen Quang (Hanoi University of Technology, Vietnam); Van Duc Nguyen (Hanoi University of Technology, Vietnam); Nguyen Trung Dung (Ha Noi University of Science and Technology, Vietnam)

[12B-6] Overhead Analysis on Beacon Broadcasting for Self-Organizing MIMC Ad-hoc Networks

Do-Yuon Kim (Ajou University, Korea); Young-June Choi (Ajou University, Korea); Kyung-yul Cheon (ETRI(Electronics and Telecommunications Research Institute), Korea); Chang-Joo Kim (Electronics and Telecommunications Research Institute, Korea)

[12B-7] The Impact of Host Name Hashing on Name Resolution Traffic

Sebastian Schellenberg (Ilmenau University of Technology, Germany); Amirhossein Saliminia (Communication Networks Group Ilmenau University of Technology Germany, Germany); Jochen Seitz (Technische Universitaet Ilmenau, Germany); Thomas Roland Finke (Heilbronn University, Germany); Juergen Schroeder (Heilbronn University, Germany)

Session 12C : Future Network III

Chair : Prof. Pongpisit Wuttidittachotti (King Mongkut's University of Technology North Bangkok, Thailand)

[12C-1] Service-adaptive Functional Architecture in M2M Communications

Sung-Hyup Lee (Korea Communications Agency, Korea); KyoungKeun Kim (Korea Communications Agency, Korea); WonGyu

Jang (Korea Communications Agency, Korea); Anh-Ngoc Le (Electric Power University, Vietnam)

[12C-2] A Relaxing Multi-Constraint Routing Algorithm by Considering QoS Metrics Priority for Wired Network
Teerapat Sanguankotchakorn (Asian Institute of Technology, Thailand); Surabodi Maneepong (Asian Institute of Technology, Thailand); Nibuhiko Sugino (Tokyo Institute of Technology, Japan)

[12C-3] Domain Classification for Celebrities Using Spreading Activation and Reasoning on Semantic Network
Dongsheng Wang (Korea University, P.R. China); Kyunglag Kwon (Korea University, Korea); In-Jeong Chung (Korea University, Korea)

[12C-4] Orchestration in Distributed Web-of-Objects for Creation of User-centered IoT Service Capability
Il Young Chong (Hankuk University of Foreign Studies, Korea); Sanghum Lee(Hankuk University of Foreign Studies, Korea); Ilyoung Chong(Hankuk University of Foreign Studies, Korea)

[12C-5] Optical Multimedia Access Transmission and Channel Bandwidth Reduction Using Compressive Sensing Technique
Yong-Yuk Won (Yonsei University, Korea); YoungJae Kwon (Yonsei University, Korea); Chiteuk Ahn (Electronics and Telecommunications Research Institute, Korea)

[12C-6] An Antenna Control Mechanism for Distributed Antenna Systems Over High-Speed Railway Communications
Hung-Hsiang Wang (Industrial Technology Research Institute, Taiwan); Hsin-An Hou (Industrial Technology Research Institute, Taiwan); Jyh-Cheng Chen (National Chiao Tung University, Taiwan)

[12C-7] Assessment of Quality of Experience for Web Browsing-As Function of Quality of Service and Content Factor
Le Thu Nguyen (Massey University, New Zealand); Richard J Harris (Massey University, New Zealand); Amal Punchihewa (Massey University, New Zealand)

July 5, 2013 (Friday)
09:20-11:20

Session 13A : Mobile Network II
Chair : Prof. Hans-Juergen Zepernick (Blekinge Institute of Technology, Sweden)

[13A-1] Adaptive Allocation for Usable Frequency in FFR Based Femtocell Network Environment
Jeong Gon Kim (Korea Polytechnic University, Korea); Won Geon Bae (Korea Polytechnic University, Korea)

[13A-2] Distance-Based Interference Coordination for Device-to-Device Communications in Cellular Networks
Quang Duong (Soongsil University, Korea); Oh-Soon Shin (Soongsil University, Korea)

[13A-3] Joint Resource Allocation and Path Selection in Network Coding-Based OFDMA Relay Networks
Ho Young Hwang (Kwangwoon University, Korea); Eol Choi (Kwangwoon University, Korea); Do-Haeng Lee (Kwangwoon University, Korea); Meng Chen (Kwangwoon University, Korea)

[13A-4] Analysis and Modeling of Dynamic Capacity Provisioning Problem for a Heterogeneous Data Center
Shuo Zhang (National University of Defense Technology, P.R. China); Yaping Liu (National University of Defense Technology, P.R. China); Baosheng Wang (National University of Defense Technology, P.R. China); Ruixin Zhang (Academy of National Defense Information, P.R. China)

[13A-5] Performance Evaluation of Downlink Scheduling Algorithms for Video/Voice Transport over Wireless Networks
Anbin Kim(Hankuk University of Foreign Studies, Korea); Chanhong Park(Hankuk University of Foreign Studies, Korea); Seong-Ho Jeong (Hankuk University of Foreign Studies, Korea)

[13A-6] Tool-Driven Strategies for Resource Provisioning of Single-Tier Web Applications in Clouds
Huynh Nguyen (Ho Chi Minh City University of Technology, Vietnam); Thoai Nam (Ho Chi Minh City University of Technology, Vietnam)

Session 13B : Future Network IV
Chair : Prof. Sangchul Kim (Kookmin University, Korea)

[13B-1] Transmission Analysis of OFDM Millimeter-Wave Radio-over-Fiber System
Tam Thi Hoang (Waseda University, Japan); Mitsuji Matsumoto (Waseda University, Japan)

[13B-2] End-Point Detecting System for the Etching Process
Sang-Chul Kim (Kookmin University, Korea)

[13B-3] Performance Evaluation of RESTful Web Services and AMQP Protocol
Joel Fernandes (Instituto de Telecomunicações, University of Beira Interior, Portugal); Ivo Lopes (Instituto de Telecomunicações, University of Beira Interior, Portugal); Joel J. P. C. Rodrigues (Instituto de Telecomunicações, University of Beira Interior, Portugal); Sana Ullah (King Saud University, Saudi Arabia)

[13B-4] A Peer to Peer Social Networking Service Exploiting Triangle Relationship Among Friends
Hyungjin Kim (University of Kookmin, Seoul, Korea); Sanghwan Lee (Kookmin University, Korea)

[13B-5] Bandwidth-aware Virtual Machines Allocation for High Performance Communication-intensive Applications
Loc Huynh (Ho Chi Minh City University of Technology, Vietnam); Thoai Nam (Ho Chi Minh City University of Technology, Vietnam)

[13B-6] A Dynamic Hi-CAST Protocol for Safety Message Dissemination in VANET
Ihn-Han Bae (Catholic University of Daegu, Korea)

Venue

Grand Mercure Danang

Web Site : *http://www.mercure.com/gb/hotel-7821-grand-mercure-danang-previously-mercure/index.shtml*

Located on exclusive Green Island in the heart of Danang City, Grand Mercure Danang is perfect for both business and leisure travelers. Only 10 minutes from the international Airport. This new hotel consists of 272 modern rooms all featuring breathtakingocean, river or mountain views. The hotel offers a Brasserie and specialty Chinese Restaurant, lobby bar, Spa, tennis court and fitness centre. The hotel also offers complimentary shuttle to town and Danang Beach as well as airport two ways transfer.

Hotel address :
Lot A1, the Zone of the Villas, Green Island
Hoa Cuong Bac Ward, Hai Chau, Danang

General Information
Tel : "International Access Code" +84-511 379 7777
Fax : "International Access Code" +84-511 379 7797
Email : h7821@accor.com
Website : http://www.mercure.com/gb/hotel-7821-grand-mercure-danang-previously-mercure/index.shtml

Reservations
Tel : "International Access Code" +84-511 379 7777
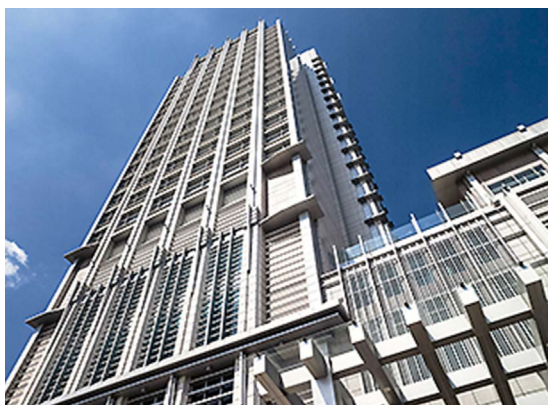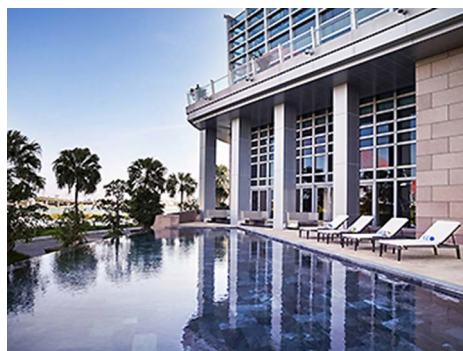*Fax : "International Access Code" +84-511 379 7797*
Email : h7821-re1@accor.com
Website: http://www.mercure.com/gb/hotel-7821-grand-mercure-danang-previously-mercure/index.shtml

Check in /Check out Time - Check in : 2PM / Check out : 12AM

***Please Note : Please contact the Mercure Danang to make any reservation and changes .**
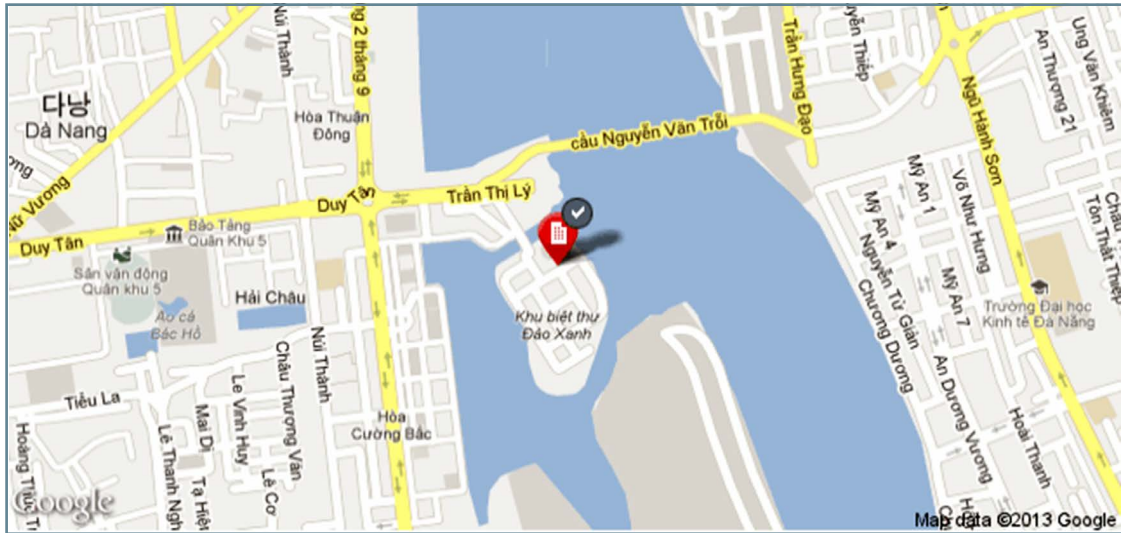
Internet : Free Wi-Fi at the hotel

ICUFN 2013

Transportation To and From Hotel

Map

Airport Transportation

The hotel kinds of cars : 4 seat–car and 16 seat-car .
- 4 seat car : Toyota Camry and Mazda-(maximum 3 paxs)
- 16 seat car : Toyota hiace
For transferring guests from/to the Airport, the rate of 210,000 VNĐ/per trip will be applied .
Distance from city center to the hotel : 3km
Distance from Int. Airport to the hotel : 3km

Currency

Vietnamese dong (VND) is the official currency in Vietnam.
- Paper notes include: VND 500,000; 200,000; 100,000; 50,000; 20,000; 10,000; 5,000; 2,000; 1,000; 500; 200 and 100.
  Coins include VND 5,000; 2,000; 1,000; 500 and 200.
Cheques with value as Vietnamese dong include: VND 1,000,000 and 500,000.
1 USD = 20,820 VND
1 Korean Won   = 19 VND

Mobile Network : GSM and CDMA coverage in Vietnam
VISA Requirements: You could find more information about <Vietnam Visa> on the website: http://www.vietnam-visa.org/

Information of Danang : You could find more information about <Danang> on the website: http://www.
vietnamtourism.com/e_pages/tourist/destination.asp?mt=84511&uid=73

Time Zone : GMT + 07:00

Customs

Customs procedures in Vietnam are quick and simple. To enter and exit Vietnam, visitors are required to fulfill the entrance and exit procedures in the form (in Vietnamese or in English languages)
You could find more information about <Customs> on the website: http://www.vietnamtourism.com/e_pages/useful/useful.
asp?uid=2335

Emergency Number(Police): 113