## TABLE of Contents

**Session 01A : Wireless Communication Technology**

1. Dependency of Jitter Variance on PLL Normalized Noise Bandwidth ............................... 2  
   _Lsamu Wakabayashi, Shun-ichi Urano, Masatoshi Sano (Tokyo University of Science, Japan)_

2. Antenna Directivity Effect on the Delay Spread at Millimeter-Wave ............................. 8  
   _Jong Ho Kimm, Myoung-Won Jung, YoungKeun Yoon (ETRI, Korea)_

3. Applications of Internet of Things on Smart Grid in China ........................................ 13  
   _Jianming Liu, Xiangzhen Li, Xi Chen, Yan Zhen, Lingkang Zeng (State Grid Information &  
     Telecommunication Company, China)_

   _Jaehin Jang (Inje University, Korea), Sang Wu Kim (Iowa State University, USA)_

5. A Road and Traffic-aware Routing Protocol in Vehicular Adhoc Network .......................... 24  
   _Pham Hong, Park Huynhee, Kang Chul-hee (Korea University, Korea)_

**Session 01B : Mobile Communications**

1. Design of a Rectangular Spiral Antenna for Wi-Fi Application ..................................... 30  
   _N. H. Abdul Hadi, K. Ismail, S. Sulaiman and M. A. Haron (Universiti Teknologi MARA, Malaysia)_

2. Effective Contention-based Bandwidth Request Scheme for QoS Enhancement in IEEE 802.16e ................................................................. 35  
   _JaeGwan Kim, In Cheol Baek, Hong Ku Kang, Ji Sang You (Agency for Defense  
     Development, Korea)_

3. Service Class Aided Scheduling for LTE ................................................................. 39  
   _Hung Pham, Xuan Nhan Vu, Seung-Hoon Hwang (Dongguk University, Korea)_

4. Impacts of CEE and CBS on the Capacity of MIMO–OFDM Systems .................................. 44  
   _Yong-Quan JIANG, Li-Sheng Fan, Xue-Jiao Shu, Shuo Wang (Shantou University, China)_

5. Two-Step Paging for Reducing Signaling Costs in Mobile IP ...................................... 50  
   _Anyamanee Navichai, Watit Benjapolakul (Chulalongkorn University, Thailand)_
Session 01C : RFID/USN Technologies I

1. A CMOS Power Amplifier for UHF RFID Reader Systems
   Suyeon Han, Youngoo Yang, Minsu Kim, Hyungchul Kim (Sungkyunkwan University, Korea)

2. Needle in a cross-layer sensor stack
   Vasanth Iyer, Garmieela Rama Murthy, Kannan Srinathan (IIIT, India), S Sitharama Iyengar
   (Louisiana State University, USA), Mandalika B. Srinivas (BITS, India), Dhananjay Singh (NIMS, Korea)

3. A Joining Mechanism for Efficient Address Management in Low-rate WPAN Mesh
   Woo Suk Ahn, Dong Yoep Hwang, Ki-hyung Kim (Ajou university, Korea)

4. rXPDL: An XML-based Policy Definition Language for Policy-driven RFID Event Management Agents
   Hyun Ahn, Bumjo Park, Wonbo Shim, Namgi Kim, Hyoung Kim, Kwanghoon Kim (Kyonggi University, Korea), Youngyoun Ahn, Dongkeun Oh, Eunsoo Kim (RFID Research Laboratory, Korea)

5. The implementation of the intelligent transport system for the real-time roadside environment information transfer
   GilYong Lee, HoGil Cho, SungHoon Choi (ETRI, Korea), HyunMoon Park (KETI, Korea), SoonHyun Park (KookMin Univ, Korea)

Session 01D : Home Network Technology

1. Recognition Assisted Dynamic Surveillance System Based on OSGi and OpenCV
   Jenq-Shiou Leu, Wei-Hsiang Lin, Min-Chieh Yu, Hung-Jie Tseng (NTUST, Taiwan)

2. Architecture for Smart Grid Based Consumer End Solution
   Shailendra Barania, Sanjay Singh, Samir Chaturvedi, Omkar Karande, Shashank Dhariwal, Varun Mohan (NMIMS University, India)

3. A Functional Architecture for User-Centric Multimedia Service on Mobile Station
   Kyeong Gon Ham, Kam Yong Kim, Seong Gon Choi (Chungbuk National University, Korea)

4. Application of Converged Communications in Smart Power Consumption Interactive Service
   Bingzhen Zhao, Jianming Liu, Ning Li, Bichao Zhuang (SGIT, China)

5. Evaluation of Adaptive Modulation Technique in PAPR Reduction in OFDM Based High Voltage Power Line Communication Systems
   Ehsan ATEFAT DOOST, Navah GHAEDI (Fars Regional Electric Company, Iran), Mohamad Hossain GHAMAT, Marzeh GOLABEI (Shiraz University, Iran)
1. Low Complexity Hybrid Smart Antenna with Directional Elements over Frequency-Selective Fading Channel

Juinn-Horng Deng (Yuan Ze University, Taiwan), Nuri Celik, Zhengqing Yun, Magdy F. Iskander (University of Hawaii at Manoa, USA)

2. PAPR Performance of Dual Carrier Modulation using Improved Data Allocation Scheme

Soobum Cho, Sang Kyu Park (Hanyang Univ., Korea)

3. GLRT-based Detection in SIRV Clutter with Steering Vector Mismatches

Xin Dai (Chongqing University, China), Guolong Cui, Lingjiang Kang (University of Electronic Science and Technology of China, China)

4. Session-oriented Adaptive Routing for Improving Path Stability in WLAN based Mesh Networks

Yu-Jin Son, Sung-Hee Lee, Young-Bae Ko (Ajou University, Korea)

5. Study of PAPR Reduction Methods in OFDM Systems

Somayeh Mohammady, Roslina bt, Mohd Sidek, Pooria Varahram, Mohd Nizar b. Hamidon, Nasri Sulaiman (University Putra Malaysia, Malaysia)

02B : Mobile Communications II

1. WINA: A Framework to Conserve Energy in Mobile Wireless Communications

Suwannit Chareen, Hong Xie, Peter Cole (Murdoch University, Australia)

2. A Fast and Accurate ICI Cancellation with Feedback Correction for the LTE-Advanced Uplink System

Haeseong Jeong, Haung-Gyo Yoo (Chungbuk National University, Korea)

3. Analyzing the TCP Performance on Mobile Ad-Hoc Networks

Pin-Chuan LIU, Wei-Cheng Sun (I Tri, Taiwan), Da-You CHEN, Chih-Lin HU (National Central University, Taiwan), Jen-Hwa LEE (National Cheng Kung University, Taiwan), Chung-Kuang CHOU (National Taiwan University, Taiwan), Wei-Kuan SHIH (National Tsing Hua University, Taiwan)

4. Hierarchical Identity-Based Encryption Authentication Scheme for WiMAX and Femtocell

VAN THUAN PHAM, BONG KYO MOON (Dongguk University, Korea)

5. Performance Analysis of an (m, n) Energy Detector in Fading Environment with Double Threshold

Ibrahim Al-Nomay (KACST, Saudi Arabia), Muhammed Alrabeiah (KSU, Saudi Arabia)
Session 02C : RFID/USN Technologies

1. Convergence of Multi-information System based on Web
   Sung-Il Hong, Hyen-Sik Lyu, Chi-Ho Lin, Dal-Hwan Yoon (Semyung University, Korea)

2. A Hierarchical Structure based Reader Anti-Collision Protocol for Dense RFID Reader Networks
   Youngchang Kang, Minjae Kim, Hyuckjae Lee (KAIST, Korea)

3. Gradual Cluster Head Election for High Network Connectivity in Large-Scale Sensor Networks
   Sang Hyuk Lee (ROK ARMY, Korea), Soobin Lee, Heechool Song, Hwang Soo Lee (KAIST, Korea)

4. Secure Authentication and Communication in Ubiquitous Healthcare Middleware
   Mangal Sain, Pardeep Kumar, Hoon Jae Lee (Dongseo University, Korea)

5. Development of design technique for the performance improvement of ConTracer
   Hyung Rim Choi, Jae Joong Kim, Chae Soo Kim, Sun Kyu Lee, Joong Jo Shin, Jung Rock Shon,
   Sung Pill Choi, Young Sik Moon (Dong-A Univ, Korea)

Session 02D : Wireless Sensor Network

1. On Transmission Efficiency of the Multimedia Service over IEEE 802.15.4 Wireless Sensor Networks
   Mu-Sheng Lin, Jenq-Shiou Leu, Wen-Chi Yu, Min-Chieh Yu (NTUST, Taiwan), Jean-Lien Chen, Wu (St. John's University, Taiwan)

   Sunita Chauresia (Near Air Force Station-Hindon, India), Ashish Faisal (Guru Gobind Singh Indraprastha University, India)

3. Threshold Based Load Balancing Protocol for Energy Efficient Routing in WSN
   Sobail Jabbar, Abid Minhas (Bahria University Wireless Research Center, Pakistan), Ayesha Ejaz Butt, Najm-us Sehr (Khan Institute of Computer Science Technology, Pakistan)

4. Managing Disaster with Wireless Sensor Networks
   Nor Azlina Ab, Azis, Kamarulsaman Ab, Azis (Multimedia University, Malaysia)

5. A Sensor Utilization Scheme for the Coverage Guarantee Criteria in a Wireless Sensor Network
   Niramol PHUNSEANTAVEEKUL, Teerasit KASET KASEM (Kasetsart University, Thailand)
1. Design of a Folded-cascade UWB Low Noise Amplifier with Low Power Consumption
Young Sung Lee, Nackgyun Seong, Yohan Jang, Jaehoon Choi (Hanyang University, Korea)

2. Study on the Application of MIMO System
haiyang Fu, Weiwei Qian (Nanjing University of Posts and Telecommunications, China)

3. The Effect of Measurement Error on the Estimation of Channel Parameters and a Novel Way to Prevent Estimation Failure
Bumsoo PARK, Byung-Jae KWAK, Myung Don Kim, Jae Joon Park, Hyun Kyu Chung (ETRI, Korea)

4. A handover technology using wireless dongle over heterogeneous access network environment
KangWoon Hong, Hyun-Woo Lee (ETRI, Korea), Swung-ho Yeon (KT, Korea)

5. Performance evaluation of MIMO schemes based on IEEE 802.16m technology
Seokki Kim, Kwangjae Lim, Chulsik Yoon (ETRI, Korea)

6. Integrated Flow Management in Packet Transport System
Chang-Ho CHOI (ETRI, Korea), Whan-Woo KIM (Chungnam National University, Korea)

7. Efficient High-Speed Optoelectronic Interconnects Parameter Extraction Based on 3D Field Simulation
Ikechi Augustine Ukaegbu, Tae-Woo Lee, Hyo-Hoon Park (KAIST, Korea)

Chia-Hung WANG, Chia-Yu CHEN, Tai-Ping SUN (National Chi Nan University, Taiwan)

WoonSik KIM, ByungSun LEE, KyungSoo KIM, TaeSoo Yang (ADD, Korea), SangHa KIM (ChungNam National University, Korea)

10. An Effective Privacy Protection Scheme for Cloud Computing
I-Hsun Chuang, Syuan-Hao Li, Kuan-Chieh Huang, Yau-Hwang Kuo (National Cheng Kung University, Taiwan)
11. An e-Science Problem Solving Environment for Scientific Numerical Study
Hyejeong Kang, Kyoung-a Yoon, Seoyoung Kim, Yoonhee Kim (Sookmyung Women's University, Korea), Chongam Kim (Seoul National University, Korea)

12. Issues on Supporting Public Cloud Virtual Machine Provisioning and Orchestration
Okgee Min, Choonsoo Park, Joongsoo Lee, Junghyun Cho, Hakyoun Kim (ETRI, Korea)

13. Backup Server Using Direct I/O Scheme
Kyung Woo Hur, Wan Yeon Lee, won vien park, Young Woong Ko, Jin Kim (Hallym University, Korea)

14. A Network Management System for u-City
Jin Goo Kang, Ju Wook Jang (Sogang University, Korea), Chang Ho Yun, Yong Woo Lee (University of Seoul, Korea)

15. An Implementation of Mobile Desktop Manager for Mobile Web Devices
Kyung Hee Lee, Hadipurnawan Satria, Chaedok Lim (ETRI, Korea), Kwan-jung Yoo (Chungnam National University, Korea)

16. Determining Saturation Point in Swarm Robot
Somar Boubou, Yohishiko Tagawa (Kyushu Institute of technology, Japan)

17. Music Mood Classification Model Based on Arousal-Valence Values
JungHyun Kim, SeungJae Lee, SungMin Kim, WonYoung Yoo (ETRI, Korea)

18. A Dynamic CAP Allocation Algorithm using Directional Antenna in IEEE 802.15.3c WPANs
Kiwan LEE, Kyung-Chul SHIN, Chul-Hee KANG, Junghyok Kwon (Korea University, Korea), Yongsun KIM (ETRI, Korea)

19. A Novel Algorithm with a New Form of Adaptive Modulation for Mobile WiMAX
Performance Improvement
Shaiyek Md. Buland Taslim (Royal Institute of Technology, Sweden), Shaih Md. Rubayiat Tousif (AIUB, Bangladesh), Mohammad Tareq (East West University, Bangladesh)
Session 03A: Wireless Communication Technology III

1. Characteristics of Sequential Detection in Cognitive Radio Networks
   Valeri Kontorovich (CINVESTAV-IPN, Mexico), Serguei Primak, Oscar Filio (The University of Western Ontario London, Canada)

2. Design of a MIMO Antenna for USB Dongle Applications Using Common Grounding
   Jaesoon KWON, Dongho KIM, Youngki LEE, Jaehoon CHOI (Hanyang University, Korea)

3. On the Performance of Coordinated AF Relaying Transmission Schemes
   MinKun Jeong, SeungYue Hwang, DongKu Kim (Yonsei University, Korea), JangHoon Yang (KGI, Korea)

   Mariel Rivas, Shuguo Xie, Donglin Su (Beijing University of Aeronautics and Astronautics, China)

5. Obstacle Recognition System using Ultrasonic Sensor and Duplex Radio-Frequency Camera for the Visually Impaired Person
   Do-Hoon Kim, Heung-Gyoon Ryu (Chungbuk National University, Korea)

Session 03B: Mobile Communications III

1. Low Complexity ADRG-PTS Scheme for PAPR Reduction in OFDM Systems
   Pooria Varahram, Borhanuddin Mohd Ali (University Putra Malaysia, Malaysia), Wisam F. Al-Azzo (Dhofar University, Malaysia)

2. Cluster Based Routing Scheme for Wireless Mesh Networks
   Madhusudan Singh, Sanggon Lee, Whye Kit Tan, Jun Huy Lam (Dongseo University, Korea)

3. Study on Power Mobile Multimedia System
   FENG ZHAO, JIANMING LIU (SGIT, China), YUEXIA ZHANG (Beijing University of Posts and Telecommunications, China)

   S. M. Kamruzzaman, Eunhee Kim, Dong Geun Jeong (Hankuk University of Foreign Studies, Korea)

   Xi LIANG, Moo Wan KIM, Uno SHINTARO (Tokyo Joho University, Japan), Souichiro MIURA (Chuo University, Japan)
Session 03C: Optical Networking Technology

1. Link-Disjoint Routing Algorithms with Link-Disjoint Degree and Resource Utilization
Concern in Translucent WDM Optical Networks
Tithra Chap, Xin Wang, Yoshiaki Tanaka (Waseda University, Japan), Sugang Xu (National Institute of Info. and Communication, Japan)

2. Fair and Efficient Scheduling Algorithm for EPON
Man Soo Han (Mokpo National Univ., Korea)

3. Fundamental limitations on introducing low cost optical sources in hybrid 40/100G
Ahmed Doogyu KORA, Diallo M, DIOUF, Samuel OUYA (Ecole Sup. Multinationales des Telecommunications, Senegal), Jean-Pierre CANCES (ENSIL, University of Limoges, Senegal)

4. Virtual Network Topology Management for Cross-Layer Provisioning in Multi-Layer Networks
Kim TaeYeon, Jeong YooHyeon, Song HoYoung (ETRI, Korea)

5. Reconfigurable Optical CDMA Network Codecs Structured over M-Signatured Waveguide-Gratings
Jen-Fa Huang, Ta-Chun Nieh, You-Da Dai (National Cheng Kung University, Taiwan)

Session 03D: Distributed Computing Technologies

1. Replication with State Using the Self-Organizing Map Neural Network
Geoffrey Cantara Soriano, Yoshiyori Urano (Waseda University, Japan)

2. Application of PFTTH in Smart Grid
Jianming Liu, Jiye Wang, Pengzhan Fan, Zichao Zhuang (SCIT, China)

3. On-demand Check Pointing for Grid Application Reliability using Communicating Process Model
Beghavathi Priya S (Jawaharlal Nehru Technological University, India), Chandrasekaran Subramaniam (Rajalakshmi Engineering College, India), Ravichandran T (Hindustan Institute of Technology, India)

4. Normality Estimation in a Popularity-Based Hybrid Peer-to-Peer Network
Marzieh Molaei Kamran (Azad University of Qazvin, Iran), Siavash Khorsandi (Amirkabir University of Technology, Iran)

5. Next Generation Multi-Tenant Virtualization Cloud Computing Platform
Session 04A : Wireless Communication Technology IV

1. Zigbee Based Collaborative AP Discovery
   Jianwei Niu, Feifei Wu (Beihang University, China), Jinfeng Zhang, Canfeng Chen (Nokia Research Center (Beijing), China)

   Hyung Rim Choi, Jae Joong Kim, Chae Soo Kim, Eun Kyu Lee, Joong Jo Shin, Jung Rock Shon, Sung Pil Choi, Young Sik Moon (Dong-A Univ, Korea)

3. Design of Non-Uniform Antenna Arrays Using Genetic Algorithm
   Murad Ridwan, Mohammed Abdo (Addis Ababa University, Ethiopia), Eduard Jorswieck (Dresden University of Technology, Ethiopia)

4. Frequency Domain Estimation and Time Domain Correction of CFO and STO Offsets in OFDM System
   HuiKyu Lee, Heung-Gyon Ryu (Chungbuk National University, Korea)

5. Symbol Error Rate of M-PSK Modulation in Incremental-Selective Decode-and-Forward Cooperative Communications over Rayleigh Fading Channels
   Rouhollah Aghajani Renani, Reza Sadat, Ghasem Mirjalili (Yazd University, Iran), Mohammed Reza Aref (Sharif University of Technology, Iran)

Session 04B : Mobile Communications IV

1. Efficient Hybrid ARQ Based on Implicit Information
   Hsin-Kun Lai (Asia-Pacific Institute of Creativity, Taiwan)

2. Opportunistic Feedback with Adaptive Modulation over Multiuser Diversity Systems
   Chung-Woon Park, Taejoon Kim, Jae-Han Jeon, Young-Jun Cho, Jong-Tae Lim (KAIST, Korea)

3. An Intelligent Data Structure Approaches for Mobile Devices
   Mallikharjuna Rao, Nuka (Annacharya P. G College of Computer Studies, India), Dr. M.M Naidu (S.V College of Engineering, India), P. Seetharam (Annamacharya Institute of Technology and Sciences, India)

4. IP header translation protocol design and implementation to a post wireless network service
   Park Jongtaek, Choi Dae-in, Kang Hyun-kook (KOREA University, Korea), Kim Su-yeon (Mobile Lab, Korea)

5. A Novel Bargaining Based Power Allocation for Coordinated Multiple Point Transmission/Reception
   Wenan Zhou, Bing Xie, Chenxi Hao (Beijing University of Posts & Telecommunications, China)
Session 04C: Optical Networking Technology II ........................................... 463

1. Bus FTTH Networks ......................................................................................... 464
   Rong Nan Chiou (Southern Taiwan University, Taiwan)

2. Performance Evaluation of Hybrid Buffering Optical Packet Switch for Pareto Traffic 470
   Ahmed Galib Reza, Hyuntaek Lim (Dongseo University, Korea)

3. Time-Stamping Accuracy in Virtualized Environments ..................................... 475
   Rafika Ida Mutia, Nayeema Sadeque, Jens Andersson (Lund university, Sweden), Andreas Johnsson (Ericsson Research, Sweden)

4. Optoelectronic Subcarrier for Chip-to-Chip Optical PCB Applications Using Long
   Wavelength VCSELs ......................................................................................... 481
   Ikechi Augustine Ukaegbu, Tae-Woo Lee, Mu Hee Cho, Hyo-Hoon Park (KAIST, Korea)

5. Spontaneous Emission of Silicon-based on 2D Photonic Crystals Slabs with the
   Honeycomb Lattice and Quantum Dot .................................................................. 485
   Amornthep Wichasirikul, Wanchai Pijitrojana (Thammasat University, Thailand)

Session 04D: Distributed Computing Technologies II ........................................... 491

1. Distributed Pairing for File Sharing in Large-Scale Peer-to-Peer Networks ........... 492
   Chih-Lin Hu, Da-You Chen (National Central University, Taiwan)

   Frank Yong-Kyung Oh, Shin-gyu Kim, Hyeonsang Eom, Heon Y. Yoo (Seoul National University, Korea), Jongwon Park, Yongwoo Lee (University of Seoul, Korea)

   maniza hijab (Muffakham Jah College of Engg. & Tech, India), Damodaram AVULA (Jawaharlal Nehru Technological University, India)

4. Improving Content Availability for BitTorrent-like File Sharing employing User-driven
   Virtualized Nodes ............................................................................................... 506
   SuHyun An, JongWon Kim (GIST, Korea), Hyun Yong Lee (NICT, Korea)

5. Resource Discovery using Brokering with Dispute Solving in Grid Environment ........ 511
   Prakash Mohan (Jawaharlal Nehru Technological University, India), Chandrasekaran Subramaniam (Rajalakshmi Engineering College, India), Ravichandran T (Hindustan Institute of Technology, India)
1. Load Balancing with Transmission Power Control in Femtocell Networks
   Kyuwhan LEE, Sunghun KIM, Joongsoo Ma (KAIST), Seunghyun LEE (SK Telecom)

2. Multiple Mobile Agents for Data Collection in Overflow Time Based Partitions of Wireless Sensor Networks with Dynamic Deadlines
   Pranesh V Kallapur, Niranjan N Chipulkar (NMAM Institute of Technology, India)

3. Research on Transmission Method of CDMA Satellite Communication System based on Time Division Duplexing
   Xiao yan Xu, Jian jun Wu, Xi Luan, Shu bo Ren, Hai ge Xiang (Peking University, China)

4. Research on Adaptive Transmission of Time Division Duplex Physical Frame in Mobile Satellite System
   Shu bo Ren, Jian jun Wu, Xi Luan, Xiao yan Xu, Hai ge Xiang (Peking University, China)

5. e-Discovery Support Tool Design and Implementation of the AGENT Module
   Ju Young Kim, Tae Rim Lee, Bon Min Geo, Sang Uk Shin (Pukyong National University, Korea)

6. Context-based Role Engineering for Ubiquitous Computing Environment
   Seon-Ho PARK, Jung-Ho Eom, Tai-Myoung Chung (Sungkyunkwan Univ., Korea)

   Jungsoo Lee, Yeongjeong Jeong, Kisong Yoon (ETRI, Korea)

   Jun-Ho Lee, Min-Woo Park, Jung-Ho Eom, Tai-Myoung Chung (Sungkyunkwan University, Korea)

9. Human Body Parts Candidate Segmentation using Laws Texture Energy Measures with Skin Color
   Byeongcheol Choi, Seungwan Han, Byungho Chung (ETRI, National University, Korea)

10. Implementation of an impact position display system of golf ball using an image processing in an indoor golf course
    Dongwoo KIM, Youngjun Song, Nam Kim, Jeahyeong Ahn (Chungbuk National University, Korea), Jehoon Lee (Kangwann National University, Korea)
11. Interactive E-book Contents Authoring system based on MPEG-4 LASeR
Injae Lee, Myungseok Xi, Seongyong Lim, Sanghyun Park, Jihun Cha (ETRI, Korea), Joongyun Lee (SKT, Korea)

12. U-Sketchbook: Mobile Augmented Reality System Using IR Camera
Jae Hyuck Jang, Chang Geun Song, Young Woong Ko, Won Vien park, Sun Jung Kim (Hallym University, Korea)

Pardeep Kumar, Mangal Sain, Hoon Jae Lee (Dongseo University, Korea)

14. Multipath Channel Parameters based on Indoor Hotspot Channel Measurements at 3.7GHz
Myung-Don Kim, Heon Kook Kwon, Bum Soo Park, Jae Joon Park, Hyun Kyu Chung (ETRI, Korea)

15. Control Method of Checkpoint Node Selection Using a Fuzzy Rule System and Feedback in CHEMAS
Ji won Kim, Soo young Moon, Tae ho Cho (Sungkyunkwan Univ, Korea), Jin Myoung Kim, Won Tae Kim, Seung Min Park (ETRI, Korea)

16. Hardware Development According to ISO 26262
Seo-Hyun JEON, Jin-Hee Cho, Yangjae Jung, Sachoun Park, Tae-Man Han (ETRI, Korea)

17. Method of enabling a private IP terminal to receive multimedia data
YunKyung HAH (KT, Korea)

18. A Grid Portal for Grid Resource Information Service
Phil Doo Hong, Yong Woo Lee (Seoul Grid Center, Korea)

19. Automated Voice based Home Navigation System for the Elderly and the Physically Challenged
Rajesh Kannan Megalingam, Ramesh Nair, Sai Prakhya (Amrita Vishwa Vidyapeetham, India)
1. An Efficient Wireless Power Transmission System Using Phase Control of Input Electrode Array for Two-dimensional Communication
Takashi Matsuda, Takashi Matsuda, Youiti Kado, Bing Zhang (NICT, Japan)

2. A Simulink-Model of Specialized Processor on the Piecewise-Polynomial Bases
Olim Hidayov (KAIST, Korea), Dhananjay Singh, Bakul Gohel (NIMS, Korea)

3. Research on the Propagation Delay Characteristic of Multi-beam GEO Satellite Communications System
Xi Luan, Jianjun Wu, Xiaoyan Xu, Shubo Ren, Haige Xiang (Peking University, China)

4. Dual Band MIMO Antenna Using a Decoupling Network for WLAN Application
Juman KIM, Minseok HAN, Changho LEE, JaeHoon CHOI (Hanyang University, Korea)

5. Transmit Diversity Scheme with Sounding-based Channel Phase Feedback in OFDMA Systems
Tsung-Yu Tsai, Yao-Liang Chung, Chun-Chen Chien, Zehong Tsai, Hsueh-Jyh Li (National Taiwan University, Taiwan)

Session 05B : Mobile Communications V

1. Extremely Fast Simulator for Decoding LDPC Codes
Shek Yau, Tak Wong, Francis Lau (Hong Kong Polytechnic University, Hong Kong)

2. Low power, high linearity wideband receiver front-end for LTE application
Nguyen Hoai-Nam, Sae Jeong-Yul, Le Vist-Hoang, Gwak Ki-Uk, Han Seok-Kyun, Lee Sang-Gug (KAIST, Korea)

3. Position Responsive Routing Protocol (PRRP)
Noor Zaman, Aswenn Abudllah (Universiti Teknologi PETRONAS Malaysia)

4. A Software Framework to Provide Multiple MSISDN across Heterogeneous Networks
Dongcheul Lee, Seungyoul Lee (KT, Korea)

5. A Comparative Study of WiMAX and LTE as the Next Generation Mobile Enterprise Network
Leo Yi, Kai Miao, Adrian Liu (Intel China Research Center, China)
Session 05C: Game and Multimedia Technologies I .............................................659

1. The Analysis of a Fractional Pixels Generated by a Combination of Linear FIR Filters in a Video Codec .................................................................660
   Jinwuk Seok, Kisong YOON, Bumho Kim, Jeong-Woo Lee (ETRI, Korea)

2. Automatic Search Space Generation with Hierarchical Adaptive Flood Filled for Simulation and Computer Game in Confined Environment .............................................664
   Sumet Pongphankae, Pung C.C., Wong K.W. (Murdoch University, Australia)

3. Evaluation of MPEG-7 Audiovisual Query Applications .................................................670
   Alaeeldin Mohammed (University of Gezira, Sudan), Youan Jiang (Brdata, USA)

4. Speech Training System based on Resonant Frequencies of Vocal Tract .................................674
   Salai Selvam V, Thulasibai V, Robini R (Sriram Engineering College, India)

5. Adaptive Rate Control Based on Statistical Modeling in Frame-layer for H.264/AVC ........680
   Myoung-Jin Kim, Min-Cheol Hong (Soongsil University, Korea)

Session 05D: Information Security Technology I ....................................................684

1. Exploring Wireless Network Security in Auckland City through Warwalking Field Trials 685
   Nurul Sarkar (AUT University, New Zealand), Abdul Abdullah (UTM, Malaysia)

2. Implementation of KDM System based on DCI .........................................................690
   Yeonjeong Jeong, Jungsoo Lee, Kisong Yoon (ETRI, Korea)

3. Classification of LSB and MLSB Stego Images via Shift and Pixel Pairs Irrelevance ........695
   Qian Zhang, Yuefei Zhu, Chunxiang Gu, Nan LIU (Zhengzhou Information Science and Technology Institute, China)

4. Automated Blocking of Malicious Code with NDIS Intermediate Driver ......................700
   Ling Chuan Lee (CyberSecurity Malaysia, Malaysia), Lee Yee Chan, Mahmod Jamail, Kasmiran Jumari (Universiti Kebangsaan Malaysia, Malaysia)

5. A Novel Mutual Authentication Scheme for Session Initiation Protocol based on Elliptic Curve Cryptography .................................................................705
   R Arshad, N Ikram (National University of Sciences and Technology, Pakistan)
Session 06A : Wireless Communication Technology VI ........................................711

1. Design and Implementation of a Hardware-Constrained Cognitive Radio MAC
   Protocol .........................................................................................................................712
   Yi-Nan Xu, Ming-Kui Li (Yanbian University, China), Yihu Xu (Chungbuk National University, Korea)

2. Design of QAPM Modulation System with High Power Efficiency and SIMULINK
   Evaluation .....................................................................................................................716
   Jae-Hoon Choi, Heung-Gyoon Ryu (Chungbuk National University, Korea)

3. Performance Analysis of Decode-and-Forward scheme Multiple-Hop MIMO Relay
   System .........................................................................................................................720
   PHAM Thanh Hiep, KOHNO Ryuji (Yokohama National University, Japan)

4. Performance Analysis of Modulation Schemes in Intra Vehicle Communications (IVO)
   channel .......................................................................................................................725
   Gulmira Khusandaga, Asif Iqbal, Kyung Sup Kwak (Inha University, Korea)

5. Power Allocation for Incremental-Selective Decode-and-Forward Cooperative
   Communications over Rician Fading Channels .........................................................730
   Rouhollah Aghajnai Renani (Islamic Azad University, Iran), Reza Sassat, ghasem Mirjally
   (University of Yazd, Iran), Mohammad Reza Aref (Sharif University of Technology, Iran)

Session 06B : Mobile Communications VI .................................................................735

1. Performance Evaluation of nsclkill Simulator for Mobile Ad Hoc Networks ............736
   Viet Thi Minh Do, Lang Xie, Øivind Kure (Norwegian University of Science and Technology, Norway)

2. Q-PMIP: Query-based Proxy Mobile IPv6 ...............................................................742
   Jae-Wan Park, Ji-In Kim, Seok-Joo Koh (Kyungpook National University, Korea)

3. Energy-Efficient Cluster Formation in Heterogeneous Wireless Sensor Networks: A
   Comparative Study .....................................................................................................746
   Dahlila Putri Dahnil, Yaswant Prasad Singh, Chin Kuan Ho (Multimedia University, Malaysia)

4. WVaMode: A Wi-Fi Vehicular ad hoc Mode for the unmanned vehicle ....................752
   Mingde HAO, Choon-sung Nam, Dong-Ryeol SHIN (Sungkyunkwan University, Korea)

5. Developing a BDSR scheme to Avoid Black hole Attack based on proactive and
   architecture in MANETS ..............................................................................................755
   Po-Chun TSOU, Yi-Heuan LIN, Han-Chieh CHAO (National Ilan University, Taiwan), Jian-Ming
   CHANG (National Dong Hwa University, Taiwan), Jiann-Liang CHEN (Taiwan University of Science
   and Technology, Taiwan)
Session 06C : Game and Multimedia Technologies II

1. Virtual Studio System for Augmented Reality & Chroma Key Processing
   Seoksoo Kim (Hannam University, Korea)

2. Various NMF Analyses for Emotion Recognition
   JeongMok HA, Jaeyeon SONG, Hong JONG (POSTECH, Korea)

3. Evaluation of online Signature Verification features
   Ghaezaleh Tahersadeh, Roobbeh Karimi, Alireza Ghobadi (Multimedia University, Malaysia), Hossein Mosheberan Beh (Soha, Malaysia)

   Jong-hak Kim, Jun-dong Cho (Sungkyunkwan University, Korea)

5. Digital Special Makeup by Onset Motion Capture
   Jong-Sung Kim, Jae-Hean Kim (ETRI, Korea)

Session 06D : Information Security Technology II

1. Obfuscated Malicious JavaScript Detection by Causal Relations Finding
   Ismail Al-Tahaw, Ching-Hao Mao, Hsin-Kuo Pao, Kuo-Ping Wu, Christos Faloutsos, Hahn-Ming Lee, Shyi-Ming Chen (NTUST, Taiwan), Albert Jeng (Jinwen University of Science and Technology, Taiwan)

2. Reconstruction Method for Reed-Muller Codes Using Fast Hadamard Transform
   Young Joon Song, In Sik Kang, Hyun Lee (Kumoh National Institute of Technology, Korea)

3. Trust-Oriented Access Control Based on Sources of Information Flow
   Hui Feng, Weinan Li, Wenchang Shi, Zhaohui Liang, Bin Liang (Renmin University of China, China)