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Oral Sessions

October 15 (Monday)

08:30-10:10

Session I-1: Cooperative Relay I

Chair: Young-Chai Ko, Korea University, Korea

[I-1.1] Channel Covariance Information Based Transceiver Design for AF MIMO Relay Systems with Direct Link ^{"3}

Lenin Gopal (Curtin University Malaysia, Malaysia); Yue Rong (Curtin University, Australia); Zhuquan Zang (Curtin University, Malaysia, Malaysia)

[I-1.2] A Relay Selection Scheme Using Q-Learning Algorithm ^{"9} in Cooperative Wireless Communications

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

[I-1.3] Confidence Interval Constraint for Dual-Hop Semi-^{"34} Blind AF Relaying System

John F. An (National Taiwan Ocean University, Taiwan)

[I-1.4] Collaborative Relay Beamforming Based on the Worst-^{"39} case SINR for Multiuser in Cellular Systems

Da Wang (Peking University, P.R. China); Lin Bai (Beihang University, P.R. China); Chen Chen (Peking University, P.R. China); Ye Jin (Peking University, P.R. China); Jinho Choi (Swansea University, United Kingdom)

[I-1.5] Reinforcing Wireless Links Using Controllable Mobility ^{"45} of Robotic Relays

Duc Van Le (University of Ulsan, Korea); Hoon Lawrence Oh (University of Ulsan, Korea); Seokhoon Yoon (University of Ulsan, Korea)

Session I-2: RF Systems

Chair: Jaewoo So, Sogang University, Korea

[I-2.1] Analysis of Unit Cells for High Pass Filter Using Left-^{"4}; Handied Transmission Line

Lei Yang (Jeju National University, Korea); Soo-Duk Seo (Innertron Inc., Korea); Hak-Rae Cho (Innertron Inc., Korea); Doo-Yeong Yang (Jeju National University, Korea)

[I-2.2] Modified E-shaped Antenna having Flat-top Radiation ^{"56} Pattern

Young-Bae Jung (Hanbat National University, Korea)

[I-2.3] Design of 2.45 GHz Sierpinski Fractal Based Miniaturized ^{"58} Microstrip Patch Antenna

Sika Shrestha (Chosun University, Korea); Jung-Jin Park (Chosun University, Korea); Sun-Kuk Noh (Chosun University, Korea); Dong-You Choi (Chosun University, Korea)

[I-2.4] Miniaturized Microstrip Window Hairpin Resonator ^{"64} with T-Feeder Coupling Lines

Ram Krishna Maharjan (Kwangwoon University, Korea); Nam-Young Kim (Kwangwoon University, Korea)

[I-1.5] Performance Evaluation of Low-PAPR Transmit Filter ^{"69} for Single-Carrier Transmission

Amnart Boonkajay (Tohoku University, Japan); Tatsunori Obara (Tohoku University, Japan); Tetsuya Yamamoto (Tohoku University, Japan); Fumiuki Adachi (Tohoku University, Japan)

Session I-3: Wireless and Mobile Networks

Chair: Saewoong Bahk, Seoul National University, Korea

[I-3.1] Holistic Network Selection for Wireless Mobile Nodes in ^{"75} a 4G Environment

Vasuky Mohanan (University Sains Malaysia, Malaysia); Rahmat Budiarto (School of Computer Sciences, Malaysia); Wan Mohd Nazmee Wan Zainon (University Sains Malaysia, Malaysia)

[I-3.2] Transmission Delay Analysis of HARQ-ARQ Interaction ^{"77}; Mechanisms for IEEE 802.16m Systems

Seungjoo Ham (Sogang University, Korea); Jaewoo So (Sogang University, Korea); Daehyoung Hong (Sogang University, Korea)

[I-3.3] Handover Technique Between Femtocells in LTE ^{"83} Network Using Collaborative Approach

Modar Shbat (Kyungpook National University, Korea); Vyacheslav Tuzlukov (Kyungpook National University, Korea)

[I-3.4] A Novel Dynamic Mobility Management Scheme in ^{"89} LISP Architecture

Yang Li (Institute of Acoustics, Chinese Academy of Sciences, P.R. China); Zhijun Zhao (Chinese Academy of Sciences, P.R. China); Haibo Li (Institute of Acoustics, Chinese Academy of Sciences, P.R. China); Hui Tang (IOA, Chinese Academy of Sciences, USA); Song Ci (University of Nebraska-Lincoln, USA)

[I-3.5] Performance Analysis of CSMA Multi-hop Wireless ^{"95} Networks in Nonsaturated Conditions

Minseok Kim (Yonsei University, Korea); Jong-Moon Chung (Yonsei University, Korea)

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Chair: Kwang Soon Kim, Yonsei University, Korea

[I-4.1] A Time Synchronization Algorithm Based on Bimodal ^{"97} Clock Frequency Estimation

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[I-4.2] Low-Complexity Synchronization Method for Symbol ^{"99}; and Frame Timing in LTE Systems

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[I-4.3] An Efficient Feedback Architecture Design for Three-^{"7} user MIMO Interference Channels

Hyunsu Cha (Yonsei University, Korea); Jin Young Jang (Yonsei University, Korea); Sungyoon Cho (Yonsei University, Korea); Dong Ku Kim (Yonsei University, Korea)

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Hyungu Hwang (ETRI, Korea); Daeho Kim (ETRI, Korea)

[I-4.5] Physical Layer Security Enhancement Using an Expanded Signal Constellation⁷

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[I-5.1] A Measurement Study of a Massive Multi-Player Online First Person Shooter Game in Play-Station Network¹

Mohammad Masoud (Huazhong University of Science and Technology, P.R. China); Xiaojun Hei (Huazhong University of Science and Technology, P.R. China); Wenqing Cheng (Huazhong University of Science and Technology, P.R. China)

[I-5.2] Effect of Dynamic Control of Fragrance Output Timing in Networked Virtual Environment³²⁶

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[I-5.3] Influence of Network Delay on Viewpoint Change in Free-Viewpoint Video Transmission³²

Junya Osada (Nagoya Institute of Technology, Japan); Norishige Fukushima (Nagoya Institute of Technology, Japan); Yutaka Ishibashi (Nagoya Institute of Technology, Japan)

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[I-5.5] Detection of Unpleasant Auditory Perception with Biological Information³⁴

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October 15 (Monday)

16:20-18:00

Session II-1: Cooperative Relay II

Chair: KyungHi Chang, Inha University, Korea

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[II-1.2] DoA Estimation with Cell Searching for an IEEE 802.16-based Mobile Relay Stations³⁵⁵

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[II-1.3] Two-way Relaying based Two-hop Two-user MIMO System³⁵⁸

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[II-1.4] A Window Based Channel Allocation Algorithm for Two-way AF Relay OFDMA Systems³⁶³

Jian Yang (Xidian University, P.R. China); Qinghai Yang (Xidian University, P.R. China); FengLin Fu (Xidian University, P.R. China); Kyung Sup Kwak (Inha University, Korea)

[II-1.5] Single-Carrier Uplink Cooperative DF Relay Using Instantaneous CSI-Based Adaptive Modulation³⁶⁸

Kazuhiro Kimura (Tohoku University, Japan); Tatsunori Obara (Tohoku University, Japan); Fumiayuki Adachi (Tohoku University, Japan)

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Chair: Oh-Soon Shin, Soongsil University, Korea

[II-2.1] Zero-Forcing Beamforming with Block Diagonalization Scheme for Coordinated Multi-point Transmission³⁷⁴

Md. Hashem Ali Khan (Chonbuk National University, Korea)

[II-2.2] Efficient Coordinated Multi-cell Processing (CoMP) Scheme Selection and Radio Resource Management³⁷⁹

Jin-Bae Park (Yonsei University, Korea); Mingyu Kang (Yonsei University, Korea); Jung Hyoung Kwon (Yonsei University, Korea); Kwang Soon Kim (Yonsei University, Korea)

[II-2.3] Inter-cell Cooperation Aided Dynamic Base Station Switching for Energy Efficient Cellular Networks³⁷

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[II-2.4] Node Pair Selection Schemes in MIMO Interference Channel Using Interference Alignment³⁸⁶

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[II-2.5] A Multi-User Interference Detection Method for MU-MIMO Transmission in LTE Advanced System³⁸

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

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Chair: David E Murray, Murdoch University, Australia

[II-3.1] A Future Anycast Routing Scheme for Information-Centric Network³⁹⁵

Sha Yuan (Institute of Acoustics, Chinese Academy of Sciences, P.R. China); Tao Lin (Institute of Acoustics, Chinese Academy of Sciences, P.R. China); Guoqiang Zhang (Institute of Computing Technology, Chinese Academy of Sciences, P.R. China); Yang Li (Institute of

Acoustics, Chinese Academy of Sciences, P.R. China); Hui Tang (IOA, Chinese Academy of Sciences, USA); Song Ci (University of Nebraska-Lincoln, USA)

[II-3.2] The State of Enterprise Network Traffic in 2012 ^{***39;}
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[II-3.3] Improving Resource Utilization in a Heterogeneous ^{***3:7}
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Hsin-Yu Shih (National Taiwan University of Science and Technology, Taiwan); Jenq-Shiou Leu (National Taiwan University of Science and Technology, Taiwan)

[II-3.4] Modeling and Calculation of Multi-bottleneck ^{***3;2}
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Zhang Li (Shanghai Jiao Tong University, P.R. China); Fengqin Li (Shanghai Jiao Tong University, P.R. China); Weiqiang Sun (Shanghai Jiaotong University, P.R. China); Zhangxiao Feng (Shanghai Jiao Tong University, P.R. China); Lin Zhou (Shanghai Jiao Tong University, P.R. China); Weisheng Hu (Shanghai Jiao Tong University, P.R. China)

[II-3.5] Forum Based P2P Network Design Using Stable Nodes ^{***3;6}
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Chair: Hoon Lee, Changwon National University, Korea

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[II-5.5] QoS and Power Consumption Analysis of Cooperative ^{***45:}
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October 16 (Tuesday)

08:30-10:10

Session III-1: MIMO I

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John F. An (National Taiwan Ocean University, Taiwan)

[III-1.5] On Sub-stream Ordering for OSIC Detection in 4G Distributed MIMO Schemes

Mythri Hunukumbure (Fujitsu Labs of Europe Ltd, United Kingdom); Sunil Vadgama (Fujitsu Laboratories of Europe Ltd, United Kingdom); Luciano Sarperi (Swisscom AG, Switzerland)

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Chair: Young Yong Kim, Yonsei University, Korea

[III-2.1] Novel Cognitive Radio Technique for Using White Space in Public Cellular Networks

Hiromasa Fujii (NTT DOCOMO, Japan); Shunji Miura (NTT DOCOMO, Japan); Hidetoshi Kayama (NTT DOCOMO Beijing Communications Lab, P.R. China)

[III-2.2] An Adaptive Non-Linear Distortion Noise Control Method for Spectrum Sharing Systems

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[III-2.3] TDMA-based Cooperative Sensing using SDR Platform for Cognitive Radio

Sharifah K. Syed-Yusof (University Technology Malaysia, Malaysia); Khairuddin Mohd Khairul Rashid (University Technology Malaysia, Malaysia); Nurul Mu'azzah Abdul Latiff (University Technology Malaysia, Malaysia); Norsheila Fisal (University Technology Malaysia, Malaysia); Mohd Adib Sarjari (University Technology Malaysia, Malaysia); Rozeha A. Rashid (University Technology Malaysia, Malaysia); Nordin Bin Ramli (MIMOS Berhad, Malaysia)

[III-2.4] Single Carrier Adaptive Array for STBC Transmission over Cognitive Radio Network

Nordin Bin Ramli (MIMOS Berhad, Malaysia); Hafizal Mohamad (MIMOS Berhad, Malaysia); Mahamod Ismail (University Kebangsaan Malaysia, Malaysia); Anizamariah Daud (University Kebangsaan Malaysia, Malaysia)

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Ammar Ikram (National University of Science & Technology (NUST), Pakistan); Adnan Rashdi (NUST, Pakistan)

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Chair: Shigeki Shiokawa, Kanagawa Institute of Technology, Japan

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[III-3.3] Interference Estimation for Channel Selection in Wireless Mesh Networks

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[III-3.4] Call Capacity Model and QoS Routing Algorithms on Multi-Channel Multi-Radio Wireless Meshes

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Su Fong Chien (MIMOS Berhad, Malaysia); Kae Hsiang Kwong (MIMOS Berhad, Malaysia); Derek Holtby (MIMOS Berhad, Malaysia)

Session III-4: Channel Modeling I

Chair: Hyun Kyu Chung, ETRI, Korea

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Wonsop Kim (KAIST, Korea); Hyuckjae Lee (Information and Communications University, Korea); Jae Joon Park (ETRI, Korea); Myung-Don Kim (ETRI, Korea); Hyun Kyu Chung (ETRI, Korea)

[III-4.2] Empirical Models of Cross-Correlation for Small-Scale Fading in Co-existing Channels

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[III-4.3] Secrecy Capacity of Correlated Rayleigh Fading Channels

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Ngoc Dang (Posts and Telecommunications Institute of Technology, Vietnam); Hien Pham (Posts and Telecommunications Institute of Technology, Vietnam); Anh T. Pham (The University of Aizu, Japan)

[III-4.5] Effect of APD and Thermal Noises on the Performance of SC-BPSK/FSO Systems over Turbulence Channels

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

Session III-5: Optical Networks

Chair: Eiji Oki, University of Electro-Communications, Japan

[III-5.1] Wavelength router for energy efficient photonic aggregation with large-scale λ -tunable WDM/TDM-PON

Yumiko Senoo (NTT Access Network Service Systems Laboratories, Japan); Shin Kaneko (NTT Access Network Service Systems Laboratories, Japan); Shunji Kimura (NTT Access Network Service Systems Laboratories, Japan); Naoto Yoshimoto (NTT, Japan)

[III-5.2] Traffic Pattern Based Connection-Level Active Rerouting Algorithm in All-Optical WDM Networks

Sheng-Wei Wang (Fo Guang University, Taiwan); Yi-Chiu Chen (Fo Guang University, Taiwan)

[III-5.3] Load-Balanced Shortest-Path-Based Routing with Even Traffic Splitting

Masashi Honma (The University of Electro-Communications, Japan); Shunichi Tsunoda (The University of Electro-Communications, Japan); Eiji Oki (The University of Electro-Communications, Japan)

[III-5.4] Simulation Design for AOPR WDM/TDM PON System Architecture using WDM to OTDM XGM

Mohd Shahril Salleh (Telekom Malaysia R&D Sdn Bhd, Malaysia); Zulhedry Abd Manaf (TM R&D Sdn Bhd, Malaysia); Kharina Khairi (Next Generation Access Lab, Malaysia); Muhammad Zamzuri Abdul Kadir (Telekom Research & Development, Malaysia); Zulkalnain Mohd Yusof (TM Research & Development, Malaysia); Abu Sahmah Supa'at (University Technology Malaysia, Malaysia); Sevia Mahdaliza Idrus (Photonics Technology Centre, Malaysia)

[III-5.5] Adaptive Limited DBA Algorithm for Multi-OLT PON-Based FTTH and Wireless Sensor Networks

Monir Hossen (University of Yamanashi, Japan); Masanori Hanawa (University of Yamanashi, Japan)

October 16 (Tuesday)

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Session IV-1: MIMO II

Chair: Yongsoo Cho, Chung-Ang University, Korea

[IV-1.1] An Efficient Iterative ICI cancellation Method for Cooperative STBC-OFDM System

Kyung Hoon Won (Sungkyunkwan, Korea); Hyung-Jin Choi (SungKyunKwan University, Korea); Dongjun Lee (Sungkyunkwan University, Korea)

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Liu An (Hong Kong University of Science and Technology, Hong Kong); Youjian (Eugene) Eugene Liu (University of Colorado at Boulder, USA); Vincent Lau (Hong Kong University of Science and Technology, Hong Kong); Haige Xiang (Peking University, P.R. China); Wu Luo (Peking University, P.R. China)

[IV-1.3] Impact of Spatial Correlation towards the Performance of MIMO Downlink Transmissions

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[IV-1.4] Capacity Optimization for Short-Range LoS 3X2 MIMO Channels

Rui Xu (Southeast University, P.R. China); Haiming Wang (Southeast University, P.R. China); Mingkai Tang (Southeast University, P.R. China); Hong Wei (Southeast University, P.R. China)

[IV-1.5] Efficient and low complexity STBC-OFDM Scheme over Fading Channel

Mustafa Dh. Hassib (University Kebangsaan Malaysia, Malaysia); Mandeep Singh (University Kebangsaan Malaysia, Malaysia); Mahamod Ismail (University Kebangsaan Malaysia, Malaysia); Rosdiadee Nordin (University Kebangsaan Malaysia, Malaysia)

Session IV-2: Compressed Sensing

Chair: Jin Young Kim, Kwangwoon University, Korea

[IV-2.1] 1-bit Compressed Sensing with Edge Detection for Compressed Radio Wave Data Transfer

Takayuki Yamada (NTT, Japan); Doohwan Lee (The University of Tokyo, Japan); Hideki Toshinaga (NTT, Japan); Kazunori Akabane (NTT Network Innovation Laboratories, Japan); Yo Yamaguchi (NTT Corporation, Japan); Kazuhiro Uehara (NTT, Japan)

[IV-2.2] Impulse response UWB time-delay estimation with speed ADC using compressive sensing

Gang Yang (Communication University of China, P.R. China); Lingwen Zhang (Beijing Jiaotong University, P.R. China)

[IV-2.3] Sparse-Matrix-Based Compressed Sensing for Spectrum Sensing in Flexible Wireless

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[IV-2.4] Lattice Sphere Multiuser Detection via Compressive Sensing

Mahmoud A. M. Albreem (University Sains Malaysia (USM), Malaysia); Mohd Fadzli Mohd Salleh (University Sains Malaysia, Malaysia)

[IV-2.5] An Overcomplete Dictionary Design Algorithm for Sparse Representation of Piecewise Stationary Signal

Jing Wang (Nanjing University of Posts& Telecommunications, P.R. China); Baoyu Zheng (Nanjing University of Posts and Telecommunications, P.R. China); Zhen Yang (Nanjing University of Posts&Telecommunications, P.R. China)

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Chair: Su Fong Chien, MIMOS, Malaysia

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