

Parallel Session

Session A1 Wireless Sensor & IoT (29 Aug) 13:30 - 15:30, LT4		Session A2 MIMO 1 (29 Aug) 13:30 - 15:30, LT3		Session A3 Drone and Satellite (29 Aug) 13:30 - 15:30, TT23	
Time	Title	Time	Title	Time	Title
13:30	Receiver-side Cooperation Scheme with Interference Reduction for Wireless Sensor Networks Shintaro Mori, Fukuoka University	13:30	Performance Analysis of Power Control Based Interference Coordination for Downlink MIMO HetNets (Invited Paper) Ahmed Nasser, Kyushu University; Osamu Muta, Kyushu University	13:30	Radio link design for ITS integrated network using drone Satoshi Fujii, National Institute of Technology, Okinawa College
13:50	Throughput-Optimized Routing for Multi-Path Multi-Channel Wireless Mesh Network with Integrated Nodes Ming-Hung Tao, MaYugang, I ² R, A-STAR; SerWah Oh, Whizpace Pte Ltd	13:50	Performance Study of Terminal Collaborated MIMO Reception Experimental Testbed in Actual Environment (Invited Paper) Du Fengning, University of Kyoto; Hidekazu Murata, Kyoto University	13:50	Compressive Sensing-based Intrusion Detection for Surveillance Drone Abirami Srinivasan, NTU; Asha Vijayakumar, Airbus India; Anamitra Makur, NTU, Singapore
14:10	ID-Free Multigroup Cardinality Estimation for Massive RFID Tags in IoT Tsu-Kuang Lee, Chih-Chieh Chen, NCTU; Yi Ren, University of East Anglia; Cheng-Kuan Lin, Fuzhou University; Yu-Chee Tseng, NCTU	14:10	Loose Beamforming by Antenna Selection in a Multiuser Massive MIMO System (Invited Paper) Shunta Nakamura, Toshihiko Nishimura, Hokkaido University; Takeo Ohgane, Yasutaka Ogawa, Junichiro Hagiwara, University of Hokkaido	14:10	Reliable Two-Hop Device-To-Device Communications for UAVs Shen Wendi, National Taiwan University
14:30	Outdoor Localization for LoRaWans Using Semi-Supervised Transfer Learning with Grid Segmentation Yuh-Shyan Chen, National Taipei Univ.; Chih-Shun Hsu, Shih Hsin Univ.; Chan-Yin Huang, Kuang-Hung Cheng, National Taipei Univ.	14:30	Effects of Lloyd-Max Quantization for Distributed Collaborative Interference Cancellation (Invited Paper) Daisuke Umehara, Kyoto Institute of Technology	14:30	Affinity Propagation Clustering for Interference Management in Aerial Small Cells Shao-Hung Cheng, National Defense University; Yung-Sheng Chao, Li-Chun Wang, NCTU; Ang-Hsun Tsai, National Defense University
14:50	Wideband Communication Channel Sounding for Wireless Industrial Internet-of-Things Applications Syed Naveen Altaf Ahmed, I ² R, A*STAR; Peter John Green, Rohde and Schwarz Asia Pte Ltd, Singapore	14:50	Effect of Quantization Range Limit for Low-Resolution Analog-to-Digital Converters in Full-Digital Massive MIMO System (Invited Paper) Peng Gao, Yukitoshi Sanada, Keio University	14:50	Coverage Extension with UAV Based on Constrained Uplink and Downlink Phases for Disaster-Resilient Communication Networks Ming-Han Yang, Wen-Pin Chen, Chung Cheng Institute of Tech., Ang-Hsun Tsai, Shao-Hung Cheng, National Defense University
15:10	Identifying Indoor Points of Interest via Mobile Crowdsensing: An Experimental Study Hasala Marakkalage, Ran Liu, Sanjana K Viswanath, Chau YUEN, SUTD	15:10	A Study on Royalty Calculation to Correct Royalty Stacking and Holdup/Holdout of Standard Essential Patent Byung-Nam Kim, Hyun Woo Lee, Dankook University	15:10	Performance Evaluation of 4D-8PSK-TCM for LEO Satellite Song Kim, Ajou University; Jun-Woo Cho, Kyeong-Rok Kim, Jae-Hyun Kim, Ajou University

Session B1 Modulation and Channel Modelling (29 Aug) 16:00 - 18:00, LT4		Session B2 MIMO 2 (29 Aug) 16:00 - 18:00, LT3		Session B3 Security (29 Aug) 16:00 - 18:00, TT23	
Time	Title	Time	Title	Time	Title
16:00	Proposal of Frame Synchronization Method for Optical Turbo Coded System with Hybrid PPM-OOK Signaling Tomohiro Kiguchi, Ran Sun, Hiromasa Habuchi, Yusuke Kozawa, Ibaraki University	16:00	Modified Adaptive 2-Step ICIC for Distributed MIMO System with User Clustering Amnart Boonkajay, I ² R, A-STAR; Tomoyuki SAITO, Fumiyuki Adachi, Tohoku University	16:00	Design and Development of SCADA Firewall Security Features for Protecting Industrial Operations R Dheeraj, NUS; Huaqun Guo, I ² R, A-STAR; Bharadwaj Veeravalli, NUS; Xingjie Yu, I ² R, A-STAR
16:20	Data signal modulation scheme based on perceptually uniform color space for image sensor-based visible light coms. Taito Sasaki, Kentaro Kobayashi, Hiraku Okada, Masaaki Katayama, Nagoya University	16:20	Proposal and Evaluation of ASPF-MIMO Scheduling in LTE System Hiroki Kotake, Takeshi Hattori, Masakatsu Ogawa, Sophia University	16:20	Physical Layer Security using Artificial Noise in D2D Underlay Network Seong-Hwan Hyun, Yeong-Jun Yoon, Seong-Cheol Kim, Seoul National University
16:40	Doppler Invariant Demodulation for Shallow Water Acoustic Communications Using Deep Belief Networks Abigail Lee-Leon, Chau YUEN, and Dorien Herremans, SUTD	16:40	Symbol Timing Detection Based on Pilot Signal Correlation for FDE in Single-Carrier LOS-MIMO Kana Aono, Mamoru Sawahashi, Tokyo City University; Norifumi Kamiya, NEC Corporation	16:40	Data-Driven Attack Anomaly Detection in Public Transport Networks Yin Rui, NTU; Nicholas Wong, Independent; Huaqun Guo, I ² R, A-STAR; Wang Ling Goh, NTU
17:00	Dynamic Channel Modeling for Underwater Magnetic Induction Communication Wentao Zhou, Soongsil Univ.; Yoan Shin, Soongsil Univ.; Sai Wang, Soongsil Univ.	17:00	Complexity-Reduced Algorithm for Adaptive PAPR Reduction Method Using Null Space in MIMO Channel for MIMO-OFDM Signals Mikihito Suzuki, Taku Suzuki, Tokyo University of Science; Yoshihisa Kishiyama, NTT DOCOMO, INC.; Kenichi Higuchi, Tokyo University of Science	17:00	A Survey on IIoT Security Xingjie Yu, Huaqun Guo, I ² R, A-STAR
17:20	Analysis of Path Loss Properties in Indoor Hallway with Waveguide Channel Model Park Kyoung-Min, Lee Jung-Yong, Seong-Hwan Hyun, Seong-Cheol Kim, Seoul National University	17:20	Construction Method of Peak Cancellation Signals in Complexity-Reduced PAPR Reduction Method Using Null Space in MIMO Channel for MIMO-OFDM Signals Taku Suzuki, Mikihito Suzuki, Tokyo University of Science; Yoshihisa Kishiyama, NTT DOCOMO, INC.; Kenichi Higuchi, Tokyo University of Science	17:20	Machine Learning-based Jamming Detection in Wireless IoT Networks Bikalpa Upadhyaya, National University of Singapore; Sumei Sun, I ² R, A-STAR; Biplab Sikdar, National University of Singapore
17:40	Block Error Rate Performance of OFDM with Faster-than-Nyquist Signaling Using TDM Based Reference Signal MUXing Tsubasa Shobudani, Mitsutaka Anan, Mamoru Sawahashi, Tokyo City University; Yoshihisa Kishiyama, NTT DOCOMO, INC.	17:40	Quantized Precoding using Gibbs Sampling in Massive MIMO Downlink Riki Okawa, Yukitoshi Sanada, Keio University	17:40	Proposal of Equal-weight (2, 2) visual secret sharing schemes on VN-CSK illumination light communication Keisuke Manaka, Liyuan Chen, Hiromasa Habuchi, Yusuke Kozawa, Ibaraki University

Session C1 5G Technologies (30 Aug) 10:30 - 12:30, LT4		Session C2 Multiple Access (30 Aug) 10:30 - 12:30, LT3		Session C3 Relay (30 Aug) 10:30 - 12:30, TT23	
Time	Title	Time	Title	Time	Title
10:30	Design & Implement Domain Proxy based CBRS System for 5G Szu-Yu Liu, Heng-Syuan Lin, CHIN-YA HUANG, National Taiwan University of Science and Technology	10:30	Transmit Power Control using Fading Prediction for TDD-UL-NOMA Systems Masafumi Moriyama, Kenichi Takizawa, Hayato Tezuka, and Fumihide Kojima, NICT	10:30	Relay Selection for Bi-directional Relay Systems with XOR-Physical Layer Network Coding Kazuma Yamamoto, Okayama University, Japan; Satoshi Denno, Yafei Hou, Okayama University
10:50	Physical Cell ID Detection Probability Using Synchronization Signals of NR Radio Interface Below 6 GHz Kyogo Ota, Mamoru Sawahashi, Tokyo City University; Satoshi Nagata, NTT DOCOMO, INC.	10:50	A UL-NOMA system providing low E2E latency Hayato Tezuka, NICT	10:50	Performance Analysis for Energy Harvesting Based Wireless Relay Systems Thu L. N. Nguyen, Yoan Shin, Soongsil University
11:10	Feasibility of URLLC in Unlicensed Spectrum Yonghong Zeng, Yuhong Wang, Sumei Sun, Institute for Infocomm Research; Kun Yang, Huawei Technologies	11:10	Transmission Performance of Superposed Modulation Using QPSK and 1024-QAM in Downlink NOMA Koki Senda, Hiroyuki Otsuka, Kogakuin University	11:10	Wireless Information and Power Transfer in Three-Phase Two-Way DF-Relay Networks over Nakagami-m Fading Devendra Singh Gurjar, Avinandan Das, National Institute of Technology Silchar
11:30	Design and Implementation of Image Electronic Fence with 5G technology for Smart Farms Yen-Hao Chiu, Ching-Kuo Hsu, Kun-Ru Wu, NCTU; Jia-Ming Liang, Chang Gung University; Jen-Jee Chen, National University of Tainan; Yu-Chee Tseng, NCTU	11:30	Investigation on Retransmission Scheme in IDMA-Based Random Access Yuichiro Shake, Tokyo University of Science; Yoshihisa Kishiyama, NTT DOCOMO, INC.; Kenichi Higuchi, Tokyo University of Science	11:30	Energy Efficiency of Cooperative Relay and Spectrum Sharing Yee-Loo Foo, Multimedia University
11:50	Survey on 3GPP Low Power Wide Area Technologies and its Application Seung-Hoon Hwang, Shu-zhi Liu, Dongguk University	11:50	CSMA-TGT: Carrier-Sense Multiple Access with Transmission Guiding Tracks Raymond Jayaraj s/o Jayabal, Sumei Sun, Pang Chin Ming, Zhang Qingjun, Ma Yugang, Cheng Wang Cho, Goh Leng Meng, I ² R, A-STAR	11:50	Non-Cooperative Interference Control for Random D2D Communications with Minority Game Yu-Fan Wu, Jen-Ming Wu, National Tsing Hua University
12:10	Cross-layer combination of predictive control and error correction coding for wireless feedback control Kohei Kasai, Kentaro Kobayashi, Hiraku Okada, and Masaaki Katayama, Nagoya University	12:10	Gain Division Multiple Access for Transmissions Over Independent Fading Channels Yung-Tsao Hsu, Bei-Hao Chang, National Taiwan University; Chia-Fu Chang, MediaTek Inc.; Pin-Wen Su, Purdue University; I-Hsien Yeh, MediaTek Inc.; Kai-Chuan Cheng, Ying-Chen Lin, Mao-Chao Lin, National Taiwan University	12:10	Second Receiver Selection Algorithm for Fairness in Full Duplex Communications Won-Jae Lee, Jin-Ki Kim, Ajou university; Kyeong-Rok Kim, Jae-Hyun Kim, Ajou University

Session D1 Wireless Network (30 Aug) 13:50 - 15:50, LT4		Session D2 Message Passing Algorithm (30 Aug) 13:50 - 15:30, LT3		Session D3 Wireless Device and System (30 Aug) 13:50 - 15:50, TT23	
Time	Title	Time	Title	Time	Title
13:50	Incentive Design for Efficient Federated Learning in Mobile Networks: A Contract Theory Approach Jiawen Kang, Xiong Zehui, Dusit Niyato, and Han Yu, NTU; Ying-Chang Liang, UESTC; Dong In Kim, Sungkyunkwan University (SKKU)	13:50	Approximate Message Passing Detection for Beam-Index Spatial Modulation in Massive MIMO (Invited Paper) You-Xuan Hu, Jen-Ming Wu, National Tsing Hua University	13:50	Experimental Validations on Low-Error Estimation Models in Determining the Maximum Specific Absorption Rate of Multi-Antenna Mobile Handsets Dinh Thanh Le, Kun Li, Soichi Watanabe, NICT
14:10	Clustering Design of Vehicular as Cloud over Vehicular Networks Chun-Wei Wu, Li-Yang Huang, Po-Hsuan Tseng, National Taipei University of Technology	14:10	DNN-Aided Message Passing Based Block Sparse Bayesian Learning for Joint User Activity Detection and Channel Estimation (Invited Paper) Zhaohui Zhang, Xidian University	14:10	Wirelessly Accessible Batteryless Sensors Distributed on Conductive Textile Akihito Noda, Nanzan University
14:30	On the Wireless Extension of PROFINET Networks Wu Xuepei, Xie Lihua, NTU	14:30	Message Passing Receiver for SEFDM Signaling Over Multipath Channels (Invited Paper) Yunsi Ma, Weijie Yuan, Nan Wu, Beijing Institute of Technology; Yonghui Li, University of Sydney	14:30	Modeling and Measurement of Grounded Coplanar Waveguide on Printed Circuit Board for 5G and Automotive Radar Applications Chien-Chang Huang, Chang-Lin Peng, Chen-Yu Liao, Po-Yen Lin, Ping-Han Yang, Kuan-Chien Cheng, Yuan Ze University
14:50	Analysis on the Optimal Number of Clusters in UDN Environment Eung-Hyo Kim, Kyung Hee University	14:50	Sparse Bayesian Learning Based on Approximate Message Passing with Unitary Transformation (Invited Paper) Qinghua Guo, University of Wollongong	14:50	Advantages and Characteristics of a WPT System with a Resonant Wired-2-Coil Repeater Motoki Ishizaki, Atsushi Kurokawa, Hiroaki University
15:10	Joint Offloading and Streaming in Mobile Edges: A Deep Reinforcement Learning Approach Soohyun Park, Junhui Kim, Dohyun Kwon, Myungjae Shin, Joongheon Kim, Chung-Ang University	15:10	TurboNet: A Model-driven DNN Decoder Based on Max-Log-MAP Algorithm for Turbo Code (Invited Paper) Yunfeng He, Jing Zhang, Southeast University; Chao-Kai Wen, National Sun Yat-Sen University, Taiwan; Shi Jin, Southeast University	15:10	Receiver-side Compensation Circuits Based on T and \hat{T} equivalent models for Constant Voltage IPT Shogo Isogai, Quang-Thang Duong, Nara Institute of Science and Technology; Minoru Okada, NAIST
15:30	Performance Evaluation of Route Selection Schemes over a Clustered Cognitive Radio Network Mariam Musavi, Kok Lim Alvin Yau, Sunway University, Malaysia; Hafizal Mohamad, Nordin Ramli, MIMOS Berhad	15:30	Multilevel Space-Time Block Codes for Two Transmit Antennas and Three Time Slots Shang-Chih Ma, National Taipei University of Technology	15:30	Circuit Design and Simulation of Quantum Phase Estimation in 4x4 Matrices Gun Sik Min, Jun Heo, Korea university

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APWCS 2019

The 16th IEEE Vehicular Technology Society
Asia Pacific Wireless Communications Symposium

Singapore University of Technology and Design
August 28-30, 2019



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Time	Program		
08:30 – 14:00	Registration		
09:00 – 09:10	Welcome Speech (LT4)		
09:10 – 10:00	Prof. Kiat Seng Yeo, SUTD, Singapore		
09:10 – 10:00	Invited Talks (LT4)		
09:10 – 10:00	Prof. Hyeon-Woo Lee, Dankook University, Korea		
10:00 – 10:30	Coffee Break		
10:30 – 12:30	Session C1	Session C2	Session C3
10:30 – 12:30	5G Technologies	Multiple Access	Relay
12:30 – 13:50	Lunch		
13:50 – 15:50	Session D1	Message Passing Algorithm	Wireless Device and System
15:50 – 16:20	Coffee break		
16:20 – 17:10	Invited Talks (LT4)		
16:20 – 17:10	Dr. Yukihiko Okumura, NTT Docomo Inc., Japan		
17:10 – 18:00	Keynote Speech (LT4)		
17:10 – 18:00	Prof. Yingchang Liang, University of Electronic Science and Technology of China, China		
18:00 – 18:10	Closing Remark (LT4)		

Time	Program		
08:30 – 14:00	Registration		
09:00 – 09:10	Opening Speech (LT4)		
09:10 – 10:00	Keynote Speech (LT4)		
09:10 – 10:00	Dr. Ong Eng Hwee, Infocomm Media Development Authority, Singapore		
10:00 – 10:30	Coffee Break		
10:30 – 12:10	Invited Talks (LT4)	Prof. Yan Zhang, University of Oslo, Norway	
11:30 – 12:10	Invited Talks (LT4)	Dr. Li-Fung Chang, 5G Program Office, Taiwan	
12:10 – 13:30	Lunch		
13:30 – 15:30	Session A1	Session A2	Session A3
13:30 – 15:30	Wireless Sensor & IoT	MIMO 1	Drone and Satellite
15:30 – 16:00	Coffee break		
16:00 – 18:00	Session B1	Session B2	Session B3
16:00 – 18:00	Modulation and Channel Modelling	MIMO 2	Security
18:30 – 20:30	Banquet (Venue: Little Island Brewing company)		

Time	Program		
14:00 – 17:00	Registration		
15:00 – 17:00	Half-day Program on NOMA (Cohort Classroom 11)		
15:00 – 17:00	Prof. Pingzhi Fan (VTS Distinguished Speaker)		
15:00 – 17:00	Prof. Ziliang Liu, University of Surrey, UK		
17:00 – 18:30	Welcome Reception (Venue: Crooked Cooks)		

Program at a glance

How to Get Here by Public Transport

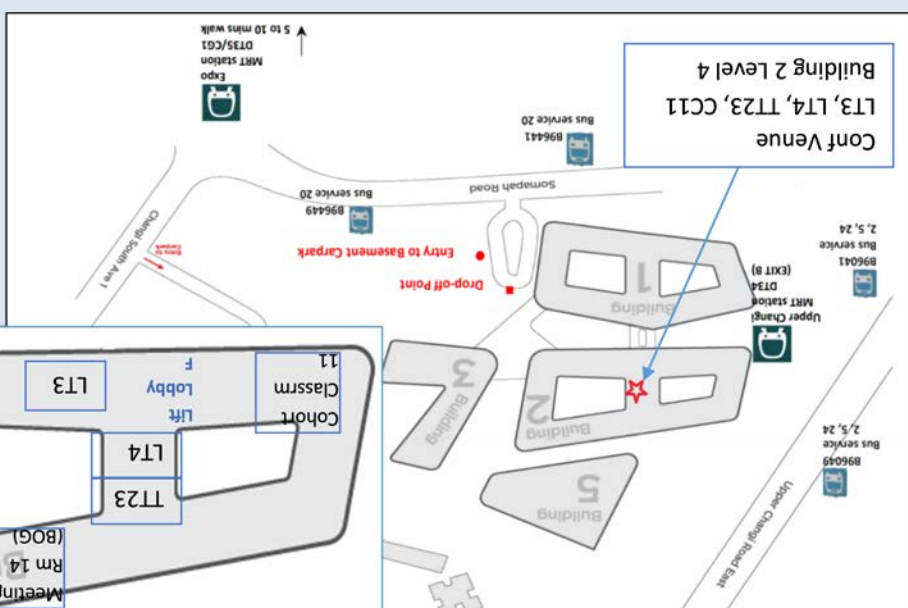
- By train
 - Alight at Expo MRT station along East West Line and take Exit B. OR
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- By bus
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 - B96441: Opposite SUTD. Service No: 20

- Please note that Lobby C and Lobby F are the nearest to LT3.
- Please take note to only park on white lots.

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Event Location



Venue