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Keynote Speech

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**A teleco's view for better and better customer expectations in multi-band,
multi-network, multi-device and multi-demand smart society**

Dr. Shinichi Nomoto

KDDI R&D Laboratories Inc.

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4G/Multiband Handheld Device Antennas and Their Antenna Systems

Kin-Lu Wong, Professor

National Sun Yat-sen University

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**Rethinking the Wireless Channel for OTA testing and Network Optimization by
Including User Statistics: RIMP, Pure-LOS, Throughput and Detection Probability**

Per-Simon Kildal, Professor

Chalmers University of Technology

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EurAAP/COST

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P.13	A Beam Steerable Plane Dielectric Lens Antenna <i>Yingsong Zhang, Wei Hong, Yan Zhang (China)</i>	476
P.14	Analysis and Design of Inhomogeneous Single Layer Slotted Dielectric Flat Lens <i>Mustafa K. Taher Al-Nuaimi, Wei Hong (China)</i>	480
P.15	Perforated Transmitarray-Enhanced Circularly Polarized Antennas for High-Gain Multi-Beam Radiation <i>Saber H.Zainud-Deen, Shaymaa M.Gaber, Hend Abd El-AzemMalhat, Kamal H.Awadalla (Egypt)</i>	484
P.16	Research on a Novel Millimeter-wave Linear MEMS Array Antenna Based on Hadamard Matrix <i>Shuyuan Shi, Yongsheng Dai (China)</i>	488
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P.21	Wide-Angle Impedance Matching of Phased-Array Antenna Using Overlapped Subarrays <i>Runliang Xia, Shiwei Qu, Minyao Xia, Zaiping Nie (China)</i>	508
P.22	Design of the Automatic Test System of Active TR module <i>Han Liu, Xin Zheng, Zhipeng Zhou, Qiang Zhang, Yiyuan Zheng (China)</i>	512
P.23	The Application Analysis of GaN High Power Chips in T/R Modules <i>Can Lin, Han Liu, Yiyuan Zheng (China)</i>	515
P.24	Compact Multi-band Circularly Polarized Antenna for GNSS Applications <i>Jianxing Li, Hongyu Shi, Hang Li, Kai Feng, Anxue Zhang (China)</i>	N/A
P.25	Simulation of Two Compact Antipodal Vivaldi Antennas With Radiation Characteristics Enhancement <i>Qiancheng Ying, Wenbin Dou (China)</i>	523
P.26	Design of a Compact UWB Band-notched Antenna with Modified Ground Plane <i>Tong Li, Huiqing Zhai, Jianhui Bao, Changhong Liang (China)</i>	527
P.27	A Compact Ultra Wideband Antenna with Triple-Sense Circular Polarization <i>Guihong Li, Huiqing Zhai, Tong Li, Long Li, Changhong Liang (China)</i>	531
P.28	Design of a Broadband Cavity-Backed Multislot Antenna <i>Jing-yu Yang, Yan-ming Liu, Wen-jun Lu, Hong-bo Zhu (China)</i>	535
P.29	Development of a Compact Planar Multiband MIMO Antenna for 4G/LTE/WLAN Mobile Phone Standards <i>Foez Ahmed, Ronglin Li, Ying Feng (China)</i>	539
P.30	A Conical Quadrifilar Helix Antenna for GNSS Applications <i>Baiquan Ning, Juan Lei, Yongchao Cao, Liang Dong (China)</i>	543
P.31	Design of a Dual Frequency and Dual Circularly Polarized Microstrip Antenna Array with Light Weight and Small Size <i>Tongbin Yu, Hongbin LI, Xinjian Zhong, Weigang Zhu, Tao Yang (China)</i>	547
P.32	Wideband High-Gain Low-Profile 1D Fabry-Perot Resonator Antenna <i>Yuehe Ge, Can Wang, Xiaohu Zeng (China)</i>	550
P.33	Bandwidth Improvement Through Slot Design on RLSA Performance <i>Imran Mohd Ibrahim, Tharek Abdul Rahman, Mursyidul Izham Sabran (Malaysia)</i>	N/A
P.34	A Broadband Center-Fed Circular Microstrip Monopolar Patch Antenna with U-Slots <i>Kang Yue, Juhua Liu, Zhixi Liang, Yunliang Long (China)</i>	N/A
P.35	Design of a Compact Multi-Band Circularly-Polarized Microstrip Antenna <i>Jie Yang, Chunlan Lu, Juhong Shen (China)</i>	561
P.36	A Pattern Reconfigurable Quasi-Yagi Antenna with Compact Size <i>Pengkai Li, Zhenhai Shao, Yujian Cheng, Quan Wang, Long Li, Yongmao Huang (China)</i>	565

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Room A

ORAL Session: TP-1(A)

Body-central Antennas

Session Chair: Koichi ITO, Zhao Wang

13:30 - 13:50	Multi-Functional Small Antennas for Health Monitoring Systems (Invited Paper) <i>Chia-Hsien Lin, Koichi Ito, Masaharu Takahashi, Kazuyuki Saito</i> (Japan)	569
13:50 - 14:10	Performance of An Implanted Tag Antenna in Human Body (Invited Paper) <i>Hoyu Lin, Masaharu Takahashi, Kazuyuki Saito, Koichi Ito</i> (Japan)	573
14:10 - 14:30	Design of Low Profile On-body Directional Antenna <i>Juneseok Lee, Jaehoon Choi</i> (South Korea)	577
14:30 - 14:50	K-factor Dependent Multipath Characterization for BAN-OTA Testing Using a Fading Emulator <i>Kun Li, Kazuhiro Honda, Koichi Ogawa</i> (Japan)	580
14:50 - 15:10	Development of VHF-band Antenna Mounted on the Helmet <i>Yuma Ono, Yoshinobu Okano</i> (Japan)	584

ORAL Session: TP-2(A)

Body-central Propagation

Session Chair: Yang Hao, Yoshinobu Okano

16:00 - 16:20	Signal Propagation Analysis for Near-Field Intra-Body Communication Systems (Invited Paper) <i>Kohei Nagata, Tomonori Nakamura, Mami Nozawa, Yuichi Kado, Hitoshi Shimasaki, Mitsuru Shinagawa</i> (Japan)	589
16:20 - 16:40	Numerical investigation on a Body-Centric Scenario at W Band (Invited Paper) <i>Khaleda Ali, Alessio Brizzi, Alice Pellegrini, Yang Hao</i> (United Kingdom)	593
16:40 - 17:00	A Wearable Repeater Relay System for Interactive Real-time Wireless Capsule Endoscopy (Invited Paper) <i>Sam Agneessens, Thijs Castel, Patrick Van Torre, Emmeric Tanghe, Günter Vermeeren, Wout Joseph, Hendrik Rogier</i> (Belgium)	597
17:00 - 17:20	Phase Characterization of 1-200 MHz RF Signal Coupling with Human Body (Invited Paper) <i>Nannan Zhang, Zedong Nie, Lei Wang</i> (China)	601
17:20 - 17:40	Electromagnetic Wave Propagation of Wireless Capsule Antennas in the Human Body <i>Zhao Wang, Enggee Lim, Meng Zhang, Jingchen Wang, Tammam Tillo, Jinhui Chen</i> (China)	605

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Room B

ORAL Session: TP-1(B)

SIW Antennas & Devices

Session Chair: Jian Yang, Jiro Hirokawa

13:30 - 13:50	Substrate Integrated Waveguide Antenna Arrays for High-Performance 60 GHz Radar and Radio Systems (Invited Paper) <i>Ajay Babu Guntupalli, Ke Wu (Canada)</i>	610
13:50 - 14:10	A New E-plane Bend for SIW Circuits and Antennas Using Gapwave Technology (Invited Paper) <i>Jian Yang, Ali Razavi Parizi (Sweden)</i>	614
14:10 - 14:30	Simplified Wavelength Calculations for Fast and Slow Wave Metamaterial Ridged Waveguides and their Application to Array Antenna Design (Invited Paper) <i>Hideki Kirino, Koichi Ogawa (Japan)</i>	617
14:30 - 14:50	A Novel SIW Slot Antenna Array Based on Broadband Power Divider <i>Dongfang Guan, Zuping Qian, Yingsong Zhang, Yang Cai (China)</i>	621
14:50 - 15:10	Novel Antipodal Linearly Tapered Slot Antenna Using GCPW-to-SIW Transition for Passive Millimeter-Wave Focal Plane Array Imaging <i>Wen Wang, Xuettian Wang, Wei Wang, Aly E.Fathy (China)</i>	625

ORAL Session: TP-2(B)

Integrated MMW Antennas

Session Chair: Yueping Zhang, Bing Zhang

16:00 - 16:20	The Substrate and Ground Plane Size Effect on Radiation Pattern of 60-GHz LTCC Patch Antenna Array (Invited Paper) <i>Lei Wang, Yongxin Guo, Wen Wu (Singapore)</i>	630
16:20 - 16:40	Ultra-broadband Tapered Slot Terahertz Antennas on Thin Polymeric Substrate (Invited Paper) <i>Masami Inoue, Masayuki Hodono, Shogo Horiguchi, Masayuki Fujita, Tadao Nagatsuma (Japan)</i>	633
16:40 - 17:00	A D-Band Packaged Antenna on Low Temperature Co-Fired Ceramics for Wire-Bond Connection with an Indium Phosphide Detector (Invited Paper) <i>Bing Zhang, Li Wei, Herbert Zirath (Sweden)</i>	637
17:00 - 17:20	Circuit Model and Analysis of Antenna-in-Package (Invited Paper) <i>Li Li, Wenmei Zhang (China)</i>	641
17:20 - 17:40	Design, Simulation and Measurement of a 120GHz On-Chip Antenna in 45 nm CMOS for High-Speed Short-Range Wireless Connectors (Invited Paper) <i>Noel Deferm, Patrick Reynaert (Belgium)</i>	645

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Room C

ORAL Session: TP-1(C)

Reflector & Air-fed Array

Session Chair: Hisamatsu Nakano, Zhi-Hang Wu

13:30 - 13:50	A Wideband Dipole Feed for Big Reflector Antenna <i>Jinglong Yu, Chengjin Jin (China)</i>	650
13:50 - 14:10	Low Sidelobe Compact Reflector Antenna Using Backfire Primary Radiator for Ku-Band Mobile Satellite Communication System on Board Vessel <i>Shinichi Yamamoto, Shuji Nuimura, Tomohiro Mizuno, Yoshio Inasawa, Hiroaki Miyashita (Japan)</i>	653
14:10 - 14:30	Fully Metallic Compound Air-fed Array Antennas for 13 GHz Microwave Radio-link Applications <i>Zhi-Hang Wu, Wen-Xun Zhang (China)</i>	657
14:30 - 14:50	Broadband Circularly Polarized Fabry-Perot Resonator Antenna <i>Zhenguo Liu, Yongxin Guo, Na Xie (China)</i>	661
14:50 - 15:10	Monopulse Fabry-Perot Resonator Antenna <i>Zhenguo Liu, Yongxin Guo (China)</i>	664

ORAL Session: TP-2(C)

Array for Radar Systems

Session Chair: Cornelis G. van 't Klooster, Fan Yang

16:00 - 16:20	Reflect-Array Sub-Reflector in X-Ka Band Antenna <i>C. G. van 't Klooster, A. Pacheco, C. Montesano, J. A. Encinar, A. Culebras (Netherlands)</i>	669
16:20 - 16:40	Design of a 60 GHz Band 3-D Phased Array Antenna Module Using 3-D SiP Structure <i>Yuya Suzuki, Satoshi Yoshida, Suguru Kameda, Noriharu Suematsu, Tadashi Takagi, Kazuo Tsubouchi (Japan)</i>	673
16:40 - 17:00	Design of Low Side Lobe Level Millimeter-Wave Microstrip array antenna for Automotive Radar <i>Donghun Shin, Kibeom Kim, Jongguk Kim, Seongook Park (South Korea)</i>	677
17:00 - 17:20	Realizing Sample Matrix Inversion (SMI) in Digital BeamForming (DBF) System <i>Hao Lei, Zaiping Nie, Feng Yang (China)</i>	N/A
17:20 - 17:40	Co-aperture dual-band waveguide monopulse antenna <i>Yuanwun Liu, Fengwei Yao, Yuanbo Shang (China)</i>	685

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Room D

ORAL Session: TP-1(D)

Mobile & Indoor Propag.

Session Chair: Zhizhang Chen, Nadir Hakem

13:30 - 13:50	Propagation Models for Simulation Scenario of ITS V2V Communications <i>Hisato Iwai, Ryoji Yoshida, Hideichi Sasaoka (Japan)</i>	689
13:50 - 14:10	Comparison of Small-Scale parameters at 60 GHz for Underground Mining and Indoor Environments <i>Yacouba Coulibaly, Gilles YDelise, Nadir Hakem (Canada)</i>	693
14:10 - 14:30	Study on the Effect of Radiation Pattern on the Field Coverage in Rectangular Tunnel by FDTD method and Point Source Array Approximation <i>Dawei Li, Yuwei Huang, Junhong Wang, Mei-E Chen, Zhan Zhang (China)</i>	697
14:30 - 14:50	Modelling of Electromagnetic Propagation Characteristics in Indoor Wireless Communication Systems Using the LOD-FDTD method <i>Meng-Lin Zhai, Wen-Yan Yin, Zhizhang Chen (China)</i>	701
14:50 - 15:10	Design of Multi-channel Rectifier with High PCE for Ambient RF Energy Harvesting <i>Zheng Zhong, Hucheng Sun, Yongxin Guo (Singapore)</i>	705

ORAL Session: TP-2(D)

Wire Antennas

Session Chair: Dau-Chyrh Chang, Hiroyuki Arai

16:00 - 16:20	Loop Antenna Array for IEEE802.11b/g <i>Dau-Chyrh Chang, Win-Ming Liang (Taiwan)</i>	709
16:20 - 16:40	Ground Radiation Antenna using Magnetic Coupling Structure. <i>Hyunwoong Shin, Yang Liu, Jaeseok Lee, Hyunghoon Kim, Hyeongdong Kim (South Korea)</i>	713
16:40 - 17:00	A Planar Coaxial Collinear Antenna with Rectangular Coaxial Strip <i>Jiao Wang, Xueguan Liu, Xinmi Yang, Huiping Guo (China)</i>	716
17:00 - 17:20	Analysis of a Horizontally Polarized Antenna with Omni-Directivity in Horizontal Plane Using the Theory of Characteristic Modes <i>Shen Wang, Hiroyuki Arai (Japan)</i>	720
17:20 - 17:40	High Gain Spiral Antenna with Conical Wall <i>Jaehwan Jeong, Kyeongsik Min, Inhwan Kim, Sungmin Kim (South Korea)</i>	723
17:40 - 18:00	Asymmetric TEM Horn Antenna for Improved Impulse Radiation Performance <i>Hyeongsoon Park, JaeSik Kim, Youngjoong Yoon, JiHeon Ryu, JinSoo Choi (South Korea)</i>	725

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Room E

15:10 - 16:00

POSTER Session: TP-P

P.1	An UWB Rotated Cross Monopole Antenna <i>Jian Ren, Xueshi Ren, Yingzeng Yin (China)</i>	N/A
P.2	A Design of Miniaturized Dual-band Antenna <i>Lu Wang, Jingping Liu, Qian Wei, Safieddin Safavi-Naeini (China)</i>	734
P.3	Design of Single-Layer Single-Feed Patch Antenna for GPS and WLAN Applications <i>Zeheng Lai, Jiade Yuan (China)</i>	737
P.4	The design of an ultra-wide band spiral antenna <i>Li Zhi, Zhang XiYu, Quanguo Sun (China)</i>	N/A
P.5	A Wide Bandwidth Circularly Polarized Microstrip Antenna Array Using Sequentially Rotated Feeding Technique <i>Tongbin Yu, Hongbin LI, Xinjian Zhong, Tao Yang, Weigang Zhu (China)</i>	743
P.6	Equivalent Radius Analytic Formulas of Substrate Integrated Cylindrical Cavity <i>Xiu-zhen Luan, Ke-jun Tan (China)</i>	746
P.7	Analysis about the Influence of Terrain on the Fair-weather Atmospheric Electric Field Measurements <i>Jun Liu, Jia-qing Chen, Xiang-yu Liu, Li-zhi Yang (China)</i>	750
P.8	A Novel Reconfigurable Bandpass Filter Using Varactor-Tuned Stepped-Impedance-Stubs <i>Min Ou, Yuhang He, Ligu Sun (China)</i>	754
P.9	Multi-Band Filters Based on Same Phase Extension Scheme <i>Xumin Yu, Xiaohong Tang, Fei Xiao, Xinyang He (China)</i>	757
P.10	A Novel C-band Frequency Selective Surface Based on Complementary Structures <i>Jing Wang, Ming Bai (China)</i>	N/A
P.11	Three-dimensional Random Modeling of Particle Packing Through Growth Algorithm and the Microwave Propagation in the Model <i>Zhixian Xia, Yujian Cheng, Yong Fan, Haochi Zhang (China)</i>	764
P.12	Simulation study of a waveguide power combining network <i>Z.X. Wang, B. Xiang, M. M. He, W.B. Dou (China)</i>	768
P.13	Closed-Form Design Equations for Four-Port Crossover with Arbitrary Phase Delay <i>Ge Tian, Chen Miao, Jin PingYang, sheng CaiShi, Wen Wu (China)</i>	N/A
P.14	Super-resolution and Frequency Spectrum Characteristics of Micro-structured Array Based on Time Reversal Electromagnetic Wave <i>Huilin Tu, Shaoqiu Xiao, Jiang Xiong, Bingzhong Wang (China)</i>	775
P.15	A Miniaturized Tunable Bandpass Filter Using Asymmetric Coupled lines and Varactors <i>Yuhang He, Min Ou, Ligu Sun (China)</i>	779
P.16	Analysis of Terahertz Smith-Purcell Radiation Generated from Tapered Grating by PIC Simulation <i>Wenxin Liu (China)</i>	N/A
P.17	An Efficient Modal Series Representation of Green's Function of Planar Layered Media for All Ranges of Distances from Source Using CGF-PML-RFFM <i>Abdorreza Torabi, Amir Ahmad Shishegar (Iran)</i>	N/A

P.18	Parallel Computation of Complex Antennas Around the Coated Object Using Hybrid Higher-Order MoM and PO Technique <i>Ying Yan, Xunwang Zhao, Yu Zhang, Changhong Liang, Jingyan Mo, Zhewang Ma</i> (China)	791
P.19	Combination of Ultra-Wide Band Characteristic Basis Function Method and Asymptotic Waveform Evaluation Method in MoM Solution <i>A-Min Yao, Wen Wu, Jun Hu, Da-Gang Fang</i> (China)	795
P.20	A Mesh-Tearing Sub-Entire Domain Basis Function Method for Improved Electromagnetic Analysis of Strong-Coupled Cube Array <i>Lin Liu, Xiaoxiang He, Chen Liu, Yang Yang</i> (China)	799
P.21	Apply Complex Source Beam Technique for Effective NF-FF Transformations <i>Shih-Chung Tuan, Hsi-Tseng Chou, Prabhakar H Pathak</i> (Taiwan)	803
P.22	A Compressed Best Uniform Approximation for Fast Computation of RCS over Wide Angular-band <i>Zhiwei Liu, Shan He, Yueyuan Zhang, Xiaoyan Zhang, Yingting Liu, Jun Xu</i> (China)	807
P.23	Study on the Thin-Film Solar Cell with Periodic Structure Using FDFD Method <i>Yuan Wei, Bo Wu, Zhixiang Huang, Xianliang Wu</i> (China)	811
P.24	Accurate Evaluation of RCS on the Structure of Aircraft Inlets <i>Jingyan Mo, Ying Yan, Weidong Fang, Haigao Xue, Zhewang Ma</i> (China)	815
P.25	Error Analysis of a Novel Absorbing Boundary Condition for the 3-Step LOD-FDTD Method <i>Lina Cao, Jianyi Zhou</i> (China)	819
P.26	Application of Liao's ABC in 2-D FDFD Algorithm <i>Tongbin Yu, Lei Zhang, Yanhui Zhao</i> (China)	822
P.27	A hybrid FE-BI-DDM for electromagnetic scattering by multiple 3-D holes <i>Zhiwei Cui, Yiping Han, Meiping Yu</i> (China)	N/A
P.28	Numerical Simulation of Complex Inhomogeneous Bodies of Revolution <i>Yongbo Zhai, J.F Zhang, T.J Cui</i> (China)	N/A
P.29	Full Wave Simulation of the Transfer Response of the TX and RX Antennas in the Full-Duplex Wireless Communication Systems <i>Yunyang Dong, Jianyi Zhou, Binqi Yang, Jianing Zhao</i> (China)	834
P.30	Research of radio wave propagation in forest based on Non-uniform mesh Parabolic Equation <i>Qinghong Zhang, Cheng Liao, Nan Sheng, Linglu Chen</i> (China)	838
P.31	Fast Calculation Method of Target's Monostatic RCS Based on BCGM <i>Xiaofei Xu, Jing Li</i> (China)	N/A
P.32	New Discretized Schemes of 1st Mur's ABC and Its Applications to Scattering Problems <i>Quan Yuan, Lianyou Sun, Wei Hong</i> (China)	845
P.33	Full-Wave Analysis of Multiport Microstrip Circuits by Efficient Evaluation of Multilayered Green's Functions in Spatial Domain <i>Zhe Song, Yan Zhang</i> (China)	849
P.34	Analysis of the Antenna in Proximity of Human Body Base on the Dual-Grid FDTD Method <i>Hai-Sheng Zhang, Ke Xiao, Lei Qiu, Hui-Ying Qi, Liang-Feng Ye, Shun-Lian Chai</i> (China)	853
P.35	Design of Millimeter Wave Waveguide-Fed Omnidirectional Slotted Array Antenna <i>Mohsen Chaharmahali, Narges Noori</i> (Iran)	N/A

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Room A

ORAL Session: FA-1(A)

A &P for Mobile Comm.

Session Chair: J. W. Modelski, Eko T Rahardjo

08:00 - 08:20	Emerging Antennas for Modern Communication Systems (Invited Paper) <i>J. W. Modelski</i> (Poland)	862
08:20 - 08:40	Tunable Antenna Impedance Matching for 4G Mobile Communications <i>Peng Liu, Andreas Springer</i> (Austria)	863
08:40 - 09:00	A dual-band and dual-polarized microstrip antenna subarray design for Ku-band satellite communications <i>Yong Fu, Zhiping Yin, Guoqiang Lv</i> (China)	N/A
09:00 - 09:20	Circularly Polarized Microstrip Antenna Array for UAV Application <i>Eko TRahardjo, Fitri YZulkifli, Desriansyah YHerwanto, Basari, Josaphat TSri Sumantyo</i> (Indonesia)	870
09:20 - 09:40	Interpolation of Communication Distance in Urban and Suburban Areas <i>Kazunori Uchida, Masafumi Takematsu, Jun-Hyuck Lee, Keisuke Shigetomi, Junichi Honda</i> (Japan)	873

ORAL Session: FA-2(A)

A &P for MIMO Comm.

Session Chair: Richard W Ziolkowski, Jiaying Zhang

10:30 - 10:50	MIMO 2x2 Reference Antennas – Measurement Analysis Using the Equivalent Current Technique <i>Alessandro Scannavini, Lucia Scialacqua, Jiaying Zhang, Lars Foged, Muhammad Zubair, J. L. A. Quijano, G. Vecchi</i> (France)	878
10:50 - 11:10	Design of a High Isolation Dual-band MIMO Antenna for LTE Terminal <i>Lili Wang, Chongyu Wei, Weichen Wei</i> (China)	881
11:10 - 11:30	Slot Ring Triangular Patch Antenna with Stub for MIMO 2x2 Wireless Broadband Application <i>Fitri YuliZulkifli, Daryanto, Eko TjiptoRahardjo</i> (Indonesia)	885
11:30 - 11:50	Simple Models for Multiplexing Throughputs in Open- and Closed-Loop MIMO Systems with Fixed Modulation and Coding for OTA Applications <i>Xiaoming Chen, Per-Simon Kildal, Mattias Gustafsson</i> (Sweden)	888
11:50 - 12:10	Channel estimation method using MSK signals for MIMO sensor <i>Keita Ushiki, Kentaro Nishimori, Tsutomu Mitsui, Nobuyasu Takemura</i> (Japan)	892

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Room B

ORAL Session: FA-1(B)

MMW & THz Antennas

Session Chair: Xiaodong Chen, Makoto Ando

08:00 - 08:20	Transmission System for Terahertz Pre-amplified Coaxial Digital Holographic Imager (Invited Paper) <i>Wenyan Ji, Haitao Wang, Zejian Lu, Yuan Yao, Junsheng Yu, Xiaodong Chen</i> (China)	897
08:20 - 08:40	Millimeter Wave Power Divider Based on Frequency Selective Surface (Invited Paper) <i>Wenyan Ji, Haitao Wang, Xiaoming Liu, Yuan Yao, Junsheng Yu, Xiaodong Chen</i> (China)	901
08:40 - 09:00	Equivalent Radius of Dipole-patch Nanoantenna with Parasitic Nanoparticle at THz band <i>M. K. H. Ismail, M. Esa, N. N. Nik Abd. Malek, S. A. Hamzah, N. A. Murad, M. F. Mohd. Yusoff, M. R. Hamid</i> (Malaysia)	905
09:00 - 09:20	Design and Implementation of A Filtenna with Wide Beamwidth for Q-Band Millimeter-Wave Short Range Wireless Communications <i>Zonglin Xue, Yan Zhang, Wei Hong</i> (China)	909
09:20 - 09:40	Design of Terahertz Ultra-wide Band Coupling Circuit Based on Superconducting Hot Electron Bolometer Mixer <i>Chun Li, Lei Qin, Miao Li, Ling Jiang</i> (China)	913

ORAL Session: FA-2(B)

MMW Antennas

Session Chair: Takeshi Manabe, Yan Zhang

10:30 - 10:50	Design of a Linear Array of Transverse Slots without Cross-polarization to any Directions on a Hollow Rectangular Waveguide <i>Nhu Quyen Duong, Makoto Sano, Jiro Hirokawa, Makoto Ando, Jun Takeuchi, Akihiko Hirata</i> (Japan)	918
10:50 - 11:10	Design of Package Cover for 60GHz Small Antenna and Effects of Device Box on Radiation Performance <i>Yuanfeng She, Ryosuke Suga, Hiroshi Nakano, Yasutake Hirachi, Jiro Hirokawa, Makoto Ando</i> (Japan)	921
11:10 - 11:30	A Novel 60 GHz Short Range Gigabit Wireless Access System using a Large Array Antenna <i>Miao Zhang, Jiro Hirokawa, Makoto Ando, Koji Tokosaki, Toru Taniguchi, Makoto Noda</i> (Japan)	924
11:30 - 11:50	60 GHz On-Chip Loop Antenna Integrated in a 0.18 μm CMOS Technology <i>Yuki Yao, Takuichi Hirano, Kenichi Okada, Jiro Hirokawa, Makoto Ando</i> (Japan)	927
11:50 - 12:10	Microstrip Comb-Line Antenna with Inversely Tapered Mode Transition and Slotted Stubs on Liquid Crystal Polymer Substrates <i>Ryohei Hosono, Yusuke Uemichi, Han Xu, Ning Guan, Yusuke Nakatani, Masahiro Iwamura</i> (Japan)	930

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Room C

ORAL Session: FA-1(C)

Ant. Analysis & Synthesis

Session Chair: Riccardo E Zich, Toru Uno

08:00 - 08:20	A Modified BBO for Design and Optimization of Electromagnetic Systems (Invited Paper) <i>Marco Mussetta, Paola Pirinoli, Riccardo EZich (Italy)</i>	935
08:20 - 08:40	Understanding the Fundamental Radiating Properties of Antennas with Characteristic Mode Analysis <i>Danie Ludick, Gronum Smith (China)</i>	939
08:40 - 09:00	Characterization of H2QL Antenna by Simulation <i>Erwin BDaculan, Elmer PDadios (Philippines)</i>	940
09:00 - 09:20	FDTD Analysis of Induced Current of PEC Wire Which In Contact with Half Space Lossy Ground by Using Surface Impedance Boundary Condition <i>Takuji Arima, Toru Uno (Japan)</i>	944
09:20 - 09:40	Synthesis of Cosecant Array Factor Pattern Using Particle Swarm Optimization <i>Min-Chi Chang, Wei-Chung Weng (Taiwan)</i>	948

ORAL Session: FA-2(C)

Freq. Selective Surface

Session Chair: Toshikazu Hori, Zhenguo Liu

10:30 - 10:50	Gain Enhancement for Multiband Fractal Antenna Using Hilbert Slot Frequency Selective Surface Reflector <i>Chamaiporn Ratnaratorn, Norakamon Wongsin, Prayoot Akkaraekthalin (Thailand)</i>	953
10:50 - 11:10	Unit Cell Structure of AMC with Multi-Layer Patch Type FSS for Miniaturization <i>Ying Ming, Kuse Ryuji, Hori Toshikazu, Fujimoto Mitoshi, Seki Takuya, Sato Keisuke, Oshima Ichiro (Japan)</i>	957
11:10 - 11:30	Scattering Analysis of Active FSS Structures Using Spectral-Element Time- Domain Method <i>Hao Xu, Jian Xi, Rushan Chen (China)</i>	961
11:30 - 11:50	A Novel Frequency Selective Surface for Ultra Wideband Antenna Performance Improvement <i>Huifen Huang, Shaofang Zhang, Yuanhua Hu (China)</i>	965
11:50 - 12:10	Terahertz Cassegrain Reflector Antenna <i>Xiaofei Xu, Xudong Zhang, Zhipeng Zhou, Tie Gao, Qiang Zhang, Youcai Lin, Lei Sun (China)</i>	969

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Room D

ORAL Session: FA-1(D)

EM in Circuits-1

Session Chair: Dhaval Pujara, Qunsheng Cao

08:00 - 08:20	Simplified Modeling of Ring Resonator (RR) and Thin Wire Using Magnetization and Polarization with Loss Analysis <i>Dongho Jeon, Bomson Lee</i> (South Korea)	973
08:20 - 08:40	Transmission Characteristics of Via Holes in High-Speed PCB <i>He Xiangyang, Lei Zhenya, Wang Qing</i> (China)	977
08:40 - 09:00	Novel W-slot DGS for Band-stop Filter <i>Chen Lin, Minquan Li, Wei Wang, Jiaquan He, Wei Huang</i> (China)	981
09:00 - 09:20	Coupled-Mode Analysis of Two-Parallel Post-Wall Waveguides <i>Kiyotoshi Yasumoto, Hiroshi Maeda, Vakhtang Jandieri</i> (Japan)	984
09:20 - 09:40	Systematic Microwave Network Analysis for Arbitrary Shape Printed Circuit Boards With a Large Number of Vias <i>Xinzhen Hu, Liguang Sun</i> (China)	988

ORAL Session: FA-2(D)

EM in Circuits-2

Session Chair: Trevor S. Bird, Wenmei Zhang

10:30 - 10:50	A Novel Phase Shifter Based on Reconfigurable Defected Microstrip Structure (RDMS) for Beam-Steering Antennas (Invited Paper) <i>Can Ding, Jay Y. Guo, Pei-Yuan Qin, Trevor S. Bird, Yintang Yang</i> (Australia)	993
10:50 - 11:10	Transient Response Analysis of a MESFET Amplifier Illuminated by an Intentional EMI Source <i>Qifeng Liu, Jingwei Liu, Chonghua Fang</i> (China)	997
11:10 - 11:30	Crosstalk Analysis of Through Silicon Vias With Low Pitch-to-diameter ratio in 3D-IC <i>Sheng Liu, Jianping Zhu, Yongrong Shi, Xing Hu, Wanchun Tang</i> (China)	1001
11:30 - 11:50	Design of a Feed Network for Coscant Squared Beam based on Suspended Stripline <i>Huiying Qi, Fei Zhao, Lei Qiu, Ke Xiao, Shunlian Chai</i> (China)	1005
11:50 - 12:10	The study on Crosstalk of Single Wire and Twisted-Wire Pair <i>Lijuan Tang, Zhihong Ye, Linglu Chen, Zheng Xiang, Cheng Liao</i> (China)	1008

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Room E

09:40 - 10:30

POSTER Session: FA-P

P.1	Bow-tie Shaped Meander Slot on-body Antenna <i>Chen Yang, Guang Hua, Ping Lu, Houxing Zhou</i> (China)	1013
P.2	Evaluation Koch Fractal Textile Antenna using Different Iteration toward Human Body <i>Mohd EzwanJalil, Mohamad KamalRahim, Noor AsmawatiSamsuri, Noor AsnizarMurad, Bashir DBala</i> (Malaysia)	1017
P.3	Compact UWB Antenna with Controllable Band Notches Based On Co-directional CSRR <i>Tong Li, Huiqing Zhai, Guihong Li, Changhong Liang</i> (China)	1021
P.4	ULTRA-WIDEBAND DUAL POLARIZED PROBE FOR MEASUREMENT APPLICATION <i>Yong Li, Meng Su, Yuzhou Sheng, Liang Dong</i> (China)	1025
P.5	Conformal Monopulse Antenna Design Based on Microstrip Yagi Antenna <i>Chen Ding, Wenbin Dou</i> (China)	1029
P.6	A Printed Monopole Antenna with Two Coupled Y-Shaped Strips for WLAN/WiMAX Applications <i>Zhihui Ma, Huiqing Zhai, Zhenhua Li, Bo Yan, Changhong Liang</i> (China)	N/A
P.7	Planar Circularly Polarized Antenna with Broadband Operation for UHF RFID System <i>Jui-Han Lu, Hai-Ming Chin, Sang-Fei Wang</i> (Taiwan)	1036
P.8	A Frequency Selection Method Based on Fusion Algorithm in Bistatic HFSWR <i>Weiwei Chen, Changjun Yu, Wentao Chen</i> (China)	N/A
P.9	Effects of Antenna Polarization on Power and RMS Delay Spread in LOS/OOS Indoor Radio Channel <i>Zhong-Yu Liu, Li-Xin Guo, Wei Tao, Chang-Long Li</i> (China)	N/A
P.10	An RF Self-interference Cancellation Circuit for the Full-duplex Wireless Communications <i>Binqi Yang, Yunyang Dong, Zhiqiang Yu, Jianyi Zhou</i> (China)	1048
P.11	Ad Hoc Quantum Network Routing Protocol based on Quantum Teleportation <i>Xiaofei Cai, Xutao Yu, Xiaoxiang Shi, jin Qian, Lihui Shi, Youxun Cai</i> (China)	1052
P.12	The Service Modeling and Scheduling forWireless Access Network Oriented Intelligent Transportation System (ITS) <i>Xiaojun Wang, Haikuo Dai, Xiaoshu Chen</i> (China)	1056
P.13	Radio Channel Modeling and Measurement of a Localization Rescue System <i>Lunshang Chai, Jiao He, Xingchang Wei</i> (China)	1060
P.14	A Weighted OMP Algorithm for Doppler Super-resolution <i>Xiaochuan Wu, Weibo Deng, Yingning Dong</i> (China)	1064
P.15	Developing RSR for Chinese Astronomical Antenna and Deep Space Exploration <i>Jinsong Ping</i> (China)	N/A
P.16	Microwave Attenuation and Phase Shift in Sand and Dust Storms <i>Qunfeng Dong, Yingle Li, Jiadong Xu, Mingjun Wang</i> (China)	N/A
P.17	Experimental Research on Electromagnetic Wave Attenuation in Plasma <i>Li Wei, Suo Ying, Qiu Jinghui</i> (China)	1072
P.18	Modulation Recognition Based on Constellation Diagram for M-QAM Signals <i>Zhendong Chou, Weining Jiang, Min Li</i> (China)	N/A

P.19	Broadband Four-Way Power Divider for Active Antenna Array Application <i>Lei Zhang, Xiaowei Zhu, Peng Chen, Ling Tian, Jianfeng Zhai (China)</i>	1079
P.20	Production of Bessel-Gauss Beams at THz by Use of UPA <i>Yanzhong Yu, Yanfei Li, Yunyan Wang (China)</i>	1082
P.21	Electromagnetic Scattering from Rough Sea Surface Covered with Oil Films <i>Xincheng Ren, Wenli Lei, Xiaomin Zhu, Wei Tian (China)</i>	1086
P.22	A FBLP Based Method for Suppressing Sea Clutter in HFSWR <i>Yongpeng Zhu, Chao Shang, Yajun Li (Hong Kong)</i>	1090
P.23	Radar HRRP Adaptive Denoising via Sparse and Redundant Representations <i>Min Li, Gongjian Zhou, Bin Zhao, Taifan Quan (China)</i>	1094
P.24	GPU based FDTD method for investigation on the electromagnetic scattering from 1-D rough soil surface <i>Chun-Gang Jia, Li-Xin Guo, Juan Li (China)</i>	N/A
P.25	Research on the GPS Signal Scattering and Propagation in the Tropospheric Ducts <i>Guangcheng Lee, Lixin Guo, Jiejing Sun, Jianhua Ge (China)</i>	1102
P.26	Bandwidth Enhancement of PIFA with Novel EBG Ground <i>Yu Cao, Qiaona Qiu, Ying Liu, Shuxi Gong (China)</i>	N/A
P.27	Artificial Magnetic Conductor and Its Application <i>Hongyuan Zhou, Feng Xu (China)</i>	1110
P.28	Working Principles of A Broadband/Dual-band Frequency Selective Structure with Quasi-Elliptic Response <i>Jianfeng Tan, Peiguo Liu, Xianjun Huang, Guohua Li, Cheng Yang (China)</i>	N/A
P.29	Anisotropic Photonic Band Gaps in Three-dimensional Magnetized Plasma Photonic crystals <i>Hai-Feng Zhang, Shao-Bin Liu, Huan Yang (China)</i>	1118
P.30	Miniaturized Frequency Selective Surface with Bionic Structure <i>Wen Jiang, Tao Hong, Shuxi Gong (China)</i>	N/A
P.31	Artificial Magnetic Conductor based on InP Technology <i>YanJun Dai, Guoqing Luo, Yaping Liang (China)</i>	1124
P.32	A Compact Triple mode Metamaterial Inspired-Monopole Antenna for Wideband Applications <i>Bashir DBala, Mohamad Kamal BA Rahim, Noor Asniza Murad (Malaysia)</i>	1127
P.33	Field-circuit co-simulation for microwave metamaterials with nonlinear components <i>Delong Li, Jinfeng Zhu, Shanshan Wu, Xiaoping Xiong, Yanhui Liu, Qing H.Liu (China)</i>	1131
P.34	Metamaterial Absorber and Polarization Transformer Based on V-shape Resonator <i>Song Han, Helin Yang (China)</i>	N/A
P.35	Design of Broadband Metamaterial Absorber Based on Lumped Elements <i>Xiaojun Huang, Helin Yang, Song Han (China)</i>	N/A
P.36	A novel RF resonator using microstrip transmission line for human boby MRI at 3T <i>Hyeok-Woo Son, Young-Ki Cho, Hyungsuk Yoo (South Korea)</i>	1141

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Room A

ORAL Session: FP-1(A)

Antennas for RFID

Session Chair: Kyeong-Sik Min, Wen Wu

13:30 - 13:50	A Low-Profile Dual-Band RFID Antenna Combined With Silence Element <i>Yongqiang Chen, Huiping Guo, Xinmi Yang, Xueguan Liu (China)</i>	1146
13:50 - 14:10	Impedance Matching Design of Small Normal Mode Helical Antennas for RFID Tags <i>Yi Liao, Yuan Zhang, Kun Cai, Zichang Liang (China)</i>	1150
14:10 - 14:30	Circularly Polarized Antenna with Circular Shaped Patch and Strip for Worldwide UHF RFID Applications <i>Yi Liu, Xiong-Ying Liu (China)</i>	1154
14:30 - 14:50	Material Property of On-metal Magnetic Sheet Attached on NFC/HF-RFID Antenna and Research of Its Proper Pattern and Size On <i>Naoki Ohmura, Eriko Takase, Satoshi Ogino, Yoshinobu Okano, Shyota Arai (Japan)</i>	1158
14:50 - 15:10	A Low-Profile Planar Broadband UHF RFID Tag Antenna for Metallic Objects <i>Zhen-Kun Zhang, Xiong-Ying Liu (China)</i>	1162

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Room B

ORAL Session: FP-1(B)

Inversed Scattering

Session Chair: Yisok Oh, Xincheng Ren

- | | | |
|---------------|--|-------------|
| 13:30 - 13:50 | Inversion of the dielectric constant from the co-polarized ratio and the co-polarized discrimination ratio of the scattering coefficient | 1167 |
| | <i>Yuanyuan Zhang, Yaqing Li, Zhensen Wu, Xiaobing Wang (China)</i> | |
| 13:50 - 14:10 | Microwave Radiation Image Reconstruction Based on Combined TV and Haar Basis | 1171 |
| | <i>Lu Zhu, Jiangfeng Liu, Yuanyuan Liu (China)</i> | |
| 14:10 - 14:30 | Imaging of object in the presence of rough surface using scattered electromagnetic field data | 1175 |
| | <i>Pengju Yang, Lixin Guo, Chungang Jia (China)</i> | |
| 14:30 - 14:50 | A Simple and Accurate Model for Radar Backscattering from Vegetation-covered Surfaces | 1179 |
| | <i>Yisok Oh, Soon-Gu Kweon (South Korea)</i> | |
| 14:50 - 15:10 | The Analysis of Sea Clutter Statistics Characteristics Based On the Observed Sea Clutter of Ku-Band Radar | 1183 |
| | <i>Zhuo Chen, Xianzu Liu, Zhensen Wu, Xiaobing Wang (China)</i> | |

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Room C

ORAL Session: FP-1(C)

Slot Antennas

Session Chair: Tsenchieh Chiu, Peng Chen

- | | | |
|---------------|--|-------------|
| 13:30 - 13:50 | Design of slot antenna loaded with lumped circuit components
<i>Chichang Hung, Tayeh Lin, Hungchen Chen, Tsenchieh Chiu, Dachiang Chang</i>
(Taiwan) | 1188 |
| 13:50 - 14:10 | Narrow-wall confined slotted waveguide structural antennas for small multi-rotor UAV
<i>Derek Gray, Kunio Sakakibara, Yingdan Zhu</i> (China) | 1192 |
| 14:10 - 14:30 | Pattern Synthesis Method for a Center Holed Waveguide Slot Array Applied to Composite Guidance
<i>Jingjian Huang, Shaoyi Xie, Weiwei Wu, Naichang Yuan</i> (China) | 1196 |
| 14:30 - 14:50 | Design and Measurement of a Parallel Plate Slot Array Antenna Fed by a Rectangular Coaxial Line
<i>Hajime Nakamichi, Makoto Sano, Jiro Hirokawa, Makoto Ando, Katsumori Sasaki, Ichiro Oshima</i> (Japan) | 1199 |
| 14:50 - 15:10 | Circularly polarized square slot antenna for navigation system
<i>Yixing Zeng, Yuan Yao, Junsheng Yu, Xiaodong Chen, Youbo Zhang</i> (China) | 1202 |

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Room D

ORAL Session: FP-1(D)

A&P in Meta-structures

Session Chair: Youngjoong Yoon, Yijun Feng

13:30 - 13:50	Radiation from a Metahelical Antenna (Invited Paper) <i>Hisamatsu Nakano, Miyu Tanaka, Junji Yamauchi</i> (Japan)	1206
13:50 - 14:10	Transformation Optical Design for 2D Flattened Maxwell Fish-Eye Lens <i>Guohong Du, Chengyang Yu, Changjun Liu</i> (China)	1208
14:10 - 14:30	Tunable Electromagnetic Gradient Surface For Beam Steering by Using Varactor Diodes <i>Jungmi Hong, Youngsub Kim, Youngjoong Yoon</i> (South Korea)	1211
14:30 - 14:50	Asymmetric Electromagnetic Wave Polarization Conversion through Double Spiral Chiral Metamaterial Structure <i>Linxiao Wu, Bo Zhu, Junming zhao, Yijun Feng</i> (China)	1215
14:50 - 15:10	Metamaterial Absorber with Active Frequency Tuning in X-band <i>Hao Yuan, Bo Zhu, Junming Zhao, Yijun Feng</i> (China)	1219

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Room E

15:10 - 16:00

POSTER Session: FP-P

P.1	A Novel Circular Polarized SIW Square Ring-slot Antenna <i>Fangfang Fan, Wei Wang, Zehong Yan (China)</i>	N/A
P.2	Design and Optimization of Broadband Single-Layer Reflectarray <i>Kai Zhang, Steven Gao, Jianzhou Li, Gao Wei, Yangyu Fan, Jiadong Xu (China)</i>	1226
P.3	A Simple Broadband Patch Antenna <i>Guoming Gao, Hong Yuan, Ling Jian, Min Ma (China)</i>	1230
P.4	A Compact Dual-Band Assembled Printed Quadrifilar Helix Antenna for CNSS Application <i>Hao Wang, Kang Chen, Yong Huang, Jie Wang (China)</i>	1233
P.5	A Novel Broadband High-Isolation Cross Dipole Utilizing Strong Mutual Coupling <i>Zengdi Bao, Xianzheng Zong, Zaiping Nie (China)</i>	1237
P.6	Design of Feed Horn Integrated 380 GHz Sub-Harmonically Pumped Mixer Cavity <i>Xiaofan Yang, Liandong Wang, Bo Zhang, Xiong Xu (China)</i>	1241
P.7	Millimeter-Wave Cavity-Backed Patch-Slot Dipole for Circularly Polarized Radiation <i>Xue Bai, Shi-Wei Qu (China)</i>	1244
P.8	Compact Wideband Millimeter-Wave Substrate Integrated Waveguide Fed Interdigital Cavity Antenna Array <i>Yang Cai, Zuping Qian, Yingsong Zhang, Dongfang Guan (China)</i>	1248
P.9	Polarization Reconfigurable Cross-Slots Circular Patch Antenna <i>Mohamed Nasrun Osman, Mohamad Kamal A. Rahim, Mohd Fairus Mohd Yussof, Mohamad Rijal Hamid, Huda A. Majid (Malaysia)</i>	1252
P.10	A Configurable Dual-H Type Planar Slot Antenna Applicable for Communication Well <i>Shengjie Wang, Xueguan Liu, Xinmi Yang, Huiping Guo (China)</i>	1256
P.11	Quantum State Propagation in Quantum Wireless Multi-hop Network based on EPR pairs <i>Kan Wang, Xutao Yu, Shengli Lu (China)</i>	1260
P.12	The Restoring Casimir Force between Doped Silicon Slab and Metamaterials <i>Xue-Wei Li, Zhi-Xiang Huang, Xian-Liang Wu (China)</i>	1264
P.13	Fast Electromagnetic Simulation by Parallel MoM Implemented on CUDA <i>Ming Fang, Kai-Hong Song, Zhi-Xiang Huang, Xian-Liang Wu (China)</i>	1268
P.14	An Efficient DGTD Implementation of the Uniaxial Perfectly Matched Layer <i>Da Peng, Lin Chen, Wenlu Yin, Hu Yang (China)</i>	1272
P.15	A Graph-Theoretic Approach to Building Layout Reconstruction from Radar Measurements <i>Bo Chen, Tian Jin, Biying Lu, Zhimin Zhou, Pu Zheng (China)</i>	1276
P.16	The Imaging Approach of Sparse Interferometry to Microwave Radiation <i>Yuanyuan Liu, Suhua Chen, Lu Zhu (China)</i>	1280
P.17	A Hybrid Method for the study of the Mono-static Scattering from the Rough Surface and the Target Above It <i>Rui Wang, Shui-Rong Chai, Yi-Wen Wei, Li-Xin Guo (China)</i>	1284

P.18	A reconfigurable frequency selective surface for tuning multi-band frequency response separately <i>Jia Lin Yuan, Shaobin Liu, xiangkun kong, Huan Yang (China)</i>	1288
P.19	A Wideband Bandstop FSS with Tripole Loop <i>Ping Lu, Guang Hua, Chen Yang, Wei Hong (China)</i>	1291
P.20	Wide Angle and Polarization Insensitive Circular Ring Metamaterial Absorber at 10 GHz <i>Osman binAyop, Mohamad Kamal binA. rahim, Noor Asniza bintiMurad (Malaysia)</i>	1295
P.21	A Plasmonic Multi-directional Frequency Splitter <i>Yong Jin Zhou, Xue Xia Yang, Tie Jun Cui (China)</i>	1298
P.22	Channel Models for Indoor UWB Short Range Communications <i>Xiongen Zhao, Suiyan Geng (China)</i>	N/A
P.23	Design of a Compact UWB Diversity Antenna for WBAN Wrist-Watch Applications <i>Seungmin Woo, Jisoo Baek, Hyungsang Park, Dongtak Kim, Jaehoon Choi (South Korea)</i>	1304
P.24	A Tablet MIMO Antenna with a Wave-Trap Slot for LTE/WiMAX Applications <i>Wen-Hsiu Hsu, Chung-Hsuan Wen, Shan-Cheng Pan, Huan-Yu Jheng (Taiwan)</i>	N/A
P.25	The MIMO Antenna Design for a TD-LTE Mobile Phone <i>Wei Wang, Chongyu Wei, Weichen Wei (China)</i>	1311
P.26	High Port Isolation Co-Located Patch Antenna <i>Weiwen Li, B. Zhang, Y. H.Liu, B. Q.You (China)</i>	1314
P.27	Sensitivity Study for Improved Magnetic Induction Tomography (MIT) Coil System <i>Ziyi Zhang, Hengdong Lei, Peiguo Liu, Dongming Zhou (China)</i>	1317
P.28	An Improved TR Method for the Measurement of Permittivity of Powder and Liquid Samples with Slabline <i>Licun Han, Zhijun Xiang, Bingjie Tao, Minhui Zeng, Yu Zhang, En Li (China)</i>	1321
P.29	Design of Novel Slot UHF Near-Field Antenna for RFID Applications <i>Qichao Yang, Jingping Liu, Safieddin Safavi-Naeini (China)</i>	1325
P.30	UHF Electrically Large Near-Field RFID Reader Antenna Using Segmented Loop Unit <i>Longlong Lin, Jin Shi, Xianming Qing, Zhining Chen (China)</i>	1328
P.31	Resonator Bandpass Filter Using the Parallel Coupled Wiggly Line for Supurious Suppression <i>Pichai Arunvipas (Thailand)</i>	1332
P.32	Robust Optimization of PCB Differential-Via for Signal Integrity <i>Shilei Zhou, Guizhen Lu (China)</i>	N/A
P.33	Modeling of the Cable-Induced Coupling into a Shielding Box Using BLT equation <i>Sufei Xiao, Zhen-Yi Niu, Jian-Feng Shi, Feng Liu (China)</i>	1340
P.34	Magnetic Near-Field Mapping of Printed Circuit Board in Microwave Frequency Band <i>Shunyun Lin, Jianhua Chen, Yating Pan, Tzungwern Chiou (Taiwan)</i>	1344