

Monday April 11, 2016

7:00	Continental Breakfast		
8:00	<p>M1A Special Session: Measurement Techniques and Device Modeling</p> <p>Invited The Case for Physics-Based Compact Transistor Models in Microwave CAD Robert Trew, North Carolina State University, United States</p>	8:00	<p>M1B Passive Devices</p>
8:30	<p>Invited Measurement accuracy and high-speed device model development Jon Martens Anritsu, United States</p>	8:20	<p>Digital Representation of Multi-Functional Microwave Passive Circuits R. Gomez-Garcia, D. Psychogiou, J. Munoz-Ferreras, D. Peroulis, University of Alcalá, Spain, Purdue University, United States</p>
9:00	<p>Invited HBT Model Verification with Measurement Uncertainty Ronald Ginley National Institute of Standards and Technology, United States</p>	8:40	<p>Modified Spiral-shaped Defected Ground Structure with Spurious-free Band Rejection Performance H. Yue, G. Subramanyam, C. Cerny, University of Dayton, United States, Air Force Research Laboratory, United States</p>
9:30	<p>Invited A compact, low-loss, tunable phase shifter on defect mitigated dielectrics up to 40 GHz N. D. Orloff, X. Lu, A. Hagerstrom, C. J. Long, N. Dawley, H. Nair, D. G. Schlom, and James C. Booth</p>	9:00	<p>Experimental Evaluation of a Reconfigurable Antenna System for Blind Interference Alignment S. Begashaw, J. Chacko, N. Gulati, D. H. Nguyen, N. Kandasamy, K. R. Dandekar, Drexel University, United States</p>
9:30		9:20	<p>Centering Simulation Model Based on Actual versus Nominal Capacitance Value L. Levesque, H. Patel, L. Dunleavy, M. Laps, Modelithics, Inc., United States, KEMET Corporation, United States</p>
9:30		9:40	<p>Novel Rat-race Coupler with Wide Reconfigurable Coupling and Non-interspersed Input/output Ports H. Liu, S. Fang, Z. Wang, Dalian Maritime University, China</p>
10:00	Break		
10:20	<p>M2A Reconfigurable Devices and Circuits</p> <p>Invited Recent Advances in Reconfigurable Microwave Filter Design D. Psychogiou, R. Gomez-Garcia, D. Peroulis, Purdue University, United States, University of Alcalá, Spain</p>	10:20	<p>M2B Antennas</p> <p>Low-Cost High-Gain Differential Integrated 60 GHz Phased Array Antenna in PCB Process T. Zhang, L. Li, H. Xia, X. Ma, D. Zhao, T. Cui, Southeast University, China</p>
10:50	<p>Invited Cold-Plasma-Enabled Tunable RF Devices D. Peroulis, Purdue University, United States</p>	10:40	<p>Design of Frequency Tunable CPW-Fed UWB Antenna Using Varactor Diodes for Cognitive Radio and Future Software Defined Radio H. A. Mohamed, A. B. Abdel-Rahman, K. Yoshitomi, R. K. Pokharel, Egypt-Japan University of Science and Technology, Egypt, Faculty of</p>
11:20	<p>Design and Implementation of an Intrinsic-Switched 22-43 GHz Tunable Bandstop Filter M. D. Hickie, M. D. Sinanis, D. Peroulis, Purdue University, United States</p>	11:00	<p>4 GHz 3D-Printed Balun-fed Bowtie Antenna with Finite Ground Plane for Gain and Impedance Matching Enhancement P. B. Nesbitt, H. Tsang, T. P. Ketterl, K. Church, T. M. Weller, 1University of South Florida, University of Texas El Paso, Sciperio, United States</p>
11:40	<p>Tunable Bandpass-Bandstop Filter Cascade for VHF Application W. Yang, W. N. Allen, D. Psychogiou, D. Peroulis, Purdue University, United States</p>	11:20	<p>Radiation Performance Enhancement of a 60 GHz CMOS Quasi-Yagi Antenna E. I. Elsaidy, A. T. Barakat, A. B. Abdel-Rahman, A. S. Allam, R. Pokharel, Egypt-Japan University of Science and Technology, Egypt, Electronics</p>
11:40		11:40	<p>Design of Reconfigurable Polarization Converters Made of Electromagnetic Band Gap Materials for Millimeter Wave A. A. Hassan, A. S. Elkorany, D. A. Saleeb, Faculty of Electronic Engineering, Egypt, Kafir Elsheikh University, Egypt</p>
12:00	Lunch		
13:30	<p>M3A Applications of RF Technologies</p> <p>Device Identification Using Active Noise Interrogation and RF-DNA "Fingerprinting" for RF Amplifier Acceptance Testing M. W. Lukacs, P. J. Collins, M. A. Temple, The Air Force Institute of Technology, United States</p>	13:30	<p>M3B Passive Devices</p> <p>Electrostatic RF MEMS Switch Working on 500~750 GHz Y. Feng, N. S. Barker, University of Virginia, Charlottesville, United States</p>
13:50	<p>Adaptive Flexible Antennas for Wireless Biomedical Applications A. Haj-Omar, Y. Kim, W. L. Thompson II, T. P. Coleman, Morgan State University, UC San Diego, United States</p>	13:50	<p>A Class of Differential-Mode Single/Dual-Band Bandpass Planar Filters Based on Signal-Interference Techniques R. Loeches-Sanchez, D. Psychogiou, R. Gomez-Garcia, D. Peroulis, University of Alcalá, Spain, Purdue University, United States</p>
14:10	<p>Surface Crack Detection in Metallic Materials Using Sensitive Microwave-Based Sensors A. M. Albishi, O. M. Ramahi, University of Waterloo, Waterloo, Canada</p>	14:10	<p>Compact Quasi-Elliptical Combine Filter in Single-Layered SIW Technology with Two Tunable Transmission Zeros D. Lu, T. Yan, X. Tang, University of Electronic Science and Technology of China, China, University of Virginia, Charlottesville</p>
14:30	<p>Asymmetric Strongly Coupled Printed Resonators for Wireless Charging Applications S. S. Hekal, A. B. Abdel-Rahman, A. Allam, A. Barakat, H. Jia, R. K. Pokharel, Egypt-Japan University of Science and Technology,</p>	14:30	<p>Gas Discharge Tube-Based Variable RF Attenuator A. Semnani, Z. Vander Missen, S. O. Macheret, D. Peroulis, Purdue University, United States, Purdue University, United States</p>
14:50	<p>Compact Coplanar Stripline -Fed Folded Strip Dipole Antenna for Millimeter Energy Combining M. A. Ali, A. B. Abdel-Rahman, H. A. Elsadek, R. Pokharel, Egypt-Japan University of Science and Technology, Egypt, Electronics Research</p>		
15:30	Interactive Forum See "Interactive Forum" Tab for the list of poster papers		
17:00	Reception & Student Research Poster Session		
18:30			

Exhibitors

Interactive Forum (Monday April 11, 2016; 3:30-5:00 PM)

Title	Authors
Polarization Independent Metasurface Energy Harvester	M. K. El Badawe, O. M. Ramahi, University of Waterloo, Canada
In Situ Channel Modeling for Real-time Repeater Node Placement	A. Giroux, J. Frolik, University of Vermont, United States
Depolarization in Three Dimensions: Theoretical Formulations and Empirical Results	M. Golmohamadi, J. Frolik, University of Vermont, United States
Modelling of wireless fading channels with RF impairments using virtual instruments	R. Martinek, P. Koudelka, J. Latal, J. Vanus, H. Wen, H. Nazeran, Faculty of Electrical Engineering and Computer Science, VSB - Technical University of Ostrava, Czech Republic, Hunan University, China, University of Texas El Paso, United States
A 0.2GHz-2.5GHz CMOS Power Amplifier Using Transformer-Based Broadband Matching Network	D. Ren, Z. Ren, K. Zhang, X. Zou, Z. Lu, D. Liu, Huazhong University of Science and Technology, Wuhan, China
Envelope Delta-Sigma Modulation with Adaptive Dither for Direct-Conversion Transmitter and Switch Mode Power Amplifier	L. Xiao, S. Abbasian, R. Kumar, S. Yogi, T. Johnson, University of British Columbia, Canada, Indian Institute of Technology, India
Design and Testing of High Power Wideband Bias-T for Broadband over Visible Light using Software-Defined Radio	T. Stratil, P. Koudelka, R. Martinek, J. Latal, V. Vasinek, H. Nazeran, VSB-Technical University of Ostrava, Czech Republic, University of Texas at El Paso, El Paso, United States
RADARSAT Constellation Mission for monitoring ground deformation in Alberta's oil sands	S. Samsonov, M. Czarnogorska, F. Charbonneau, Natural Resources Canada, Ottawa, Canada
Broadband 3 dB microstrip hybrid coupler with low dielectric substrate for X-Band applications	H. Kim, H. Wi, S. Wang, W. Jung, J. Kim, National Fusion Research Institute, Republic of Korea, Ace Antenna Corporation, Republic of Korea
A Low-Power Wide Gain Range Digitally Controlled Variable Gain Amplifier with a Wide Tuning Bandwidth for 60 GHz Applications	L. He, L. Li, D. Zhao, Z. Wang, Southeast University, China
Ultra Wideband channel characterization for invasive biomedical applications	P. V. Patel, M. Sarkar, S. Nagaraj, San Diego State University, United States, Center for Sensorimotor Neural Engineering, United States
10Gb/s Ultra-Wideband Wireless Transmission Based on Multi-Band Carrierless Amplitude Phase Modulation	R. Puerta, S. Rommel, J. Vegas Olmos, I. Tafur Monroy, Technical University of Denmark, Denmark
Parametric Study of Near- and Far-Field Performance of the Fabry-Perot Cavity Antenna System	C. Lee, R. Sainati, R. Franklin, University of Minnesota, United States
Real-Time Wireless Physical Layer Encryption	B. Z. Katz, C. Sahin, K. R. Dandekar, Drexel University, United States
A New Analytical Algorithm for the Determination of the Load Reflection Coefficient to Maximization Dynamic Range in High Frequency Power Amplifiers	S. Aghdam, M. Nouri, Florida Atlantic University, United States, University of Isfahan, Iran
Analysis and Modeling of Conformal Strongly Coupled Magnetic Resonant Devices	P. J. Gonzalez, K. A. Quintana, K. Bao, S. V. Georgakopoulos, Florida International University, United States

Tuesday April 12, 2016

7:00	Continental Breakfast		
	T1	Power Amplifiers	
8:20		Linearity Enhancement for GaN HEMT Amplifier using Parallel Transistors with Independent Gate Bias Control	K. Saini, S. Raman, A. K. Ezzeddine, H. C. Huano, Virginia Tech, United States
8:40		Class-D GaN 15MHz-Bandwidth Amplitude Modulator with a Direct CMOS Interface	W. Godycki, Q. Diduck, E. McCune, D. Babic, Eridan Communications, United States
9:00		A Millimeter Wave Broadband GaAs Power Amplifier with Balanced Bias Feedings for Stability Enhancement	M. Li, Communications Research Centre Canada, Canada
9:20		Development of a Concurrent Dual-Band Switch-Mode Power Amplifier Based on Current-Switching Class-D	Y. Li, B. J. Montgomery, N. M. Neihart, Iowa State University, United States
9:40		Structured Compressed-Sensing for Volterra Series Models	J. A. Becerra, M. J. Madero-Ayora, J. Reina-Tosina, C. Crespo-Cadenas, Universidad de Sevilla, Sevilla, Spain, University of
10:00	Break		
10:20	<p align="center">Plenary Speaker: Dr. Tom Driscoll Metamaterials-Enabled Ultra low C-SWAP Radar for Commercial Airborne Sense And Avoid</p>		
11:10	<p align="center">Plenary Speaker: Dr. Richard D. Gitlin 5G: Opportunities, Challenges, and Technologies - The Internet of Tomorrow</p>		
12:00	Lunch		
	5G Technologies Special Sessions I		
13:30	Invited	System Performance of Cooperative Massive MIMO Downlink 5G Cellular Systems	Chao He and Richard D. Gitlin University of South Florida, United States
14:00	Invited	Exploring the Possibility of Full-Duplex Operations in mmWave 5G Systems	Alpaslan Demir, Tanbir Haque, Erdem Bala, Patrick Cabrol, InterDigital Communications, United States
14:30	Invited	Waveform Design Principles for 5G and Beyond	Mohamed Elkourdi , Berker Peköz, Ertugrul Güvenkaya, Hüseyin Arslan, University of South Florida, United States
15:00	Break		
	5G Technologies Special Sessions II		
15:30	Invited	Transceiver Impact for 5G Networks	Andreas Pascht, Nokia-Bell Labs, Germany
16:00	Invited	Channel Independent Physical Layer Security	Z. Esat Ankaralı , M. Harun Yılmaz, Mohammed Hafez and Hüseyin Arslan, University of South Florida, United States
16:30	Invited	5G Green Networking: Enabling Technologies, Potentials, and Challenges	Kemal Davaslioglu and Richard D. Gitlin, University of South Florida, United States
18:30	<p align="center">Awards Banquet Honorary Speaker: Dr. Ke Wu President of the IEEE Microwave Theory and Techniques (MTT) Society</p>		

Exhibitors

Wednesday April 13, 2016

7:00	Continental Breakfast	
8:00	Tutorial 1: The Wonderful World of Nonlinearity: Modeling and Characterization of RF and Microwave Circuits	Tutorial 2: Millimeter Wave Integrated Circuit Techniques and Technology
10:00	Break	
10:20	Tutorial 1: The Wonderful World of Nonlinearity: Modeling and Characterization of RF and Microwave Circuits	Tutorial 2: Millimeter Wave Integrated Circuit Techniques and Technology
12:00		

Dr. José C. Pedro,
Univ. de Aveiro, Portugal

Dr. Shiban Koul,
Indian Institute of Technology
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