



IEEE

Wireless and Microwave Technology Conference 2009

Marriott Sand Key, Clearwater, FL April 20-21, 2009

Agenda

Monday Parallel Session #1

TUTORIAL SESSION - Monday, April 20 Chair: Ray Pengelly		Room: Belleair
8:30 AM	RA-1	Thermal Modeling and Memory Effects in Modern Day Transistor Technologies, *Patrick Roblin
10:10 AM BREAK		
TUTORIAL SESSION - Monday, April 20 Chair: Ray Pengelly		Room: Belleair
10:25 AM	RA-2	An OFDM Primer, *Charan Langton
12:05 PM LUNCH		
TUTORIAL SESSION - Monday, April 20 Chair: Craig Sapashe		Room: Belleair
1:05 AM	RA-3	European Microwave Activities, *Tom Brazil
2:45 AM BREAK		
TUTORIAL SESSION - Monday, April 20 Chair: Craig Sapashe		Room: Belleair
3:00 AM	RA-4	Wide Bandgap Transistors and MMICs, Ray Pengelly
6-7 pm	Poster Session & Reception	
7-9 pm	Dinner	





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Monday Parallel Session #2

Microwave Circuits - Chair: Vivi Cojocararu Co-Chair:		Room: Redington
8:30 AM	RF MEMS Devices Using Piezoelectric Thin Films, Ronald G. Polcawich	
8:50 AM	Investigating Effect of Quadrature Imperfection of Vector Multiplier in implementing RF/Digital Predistortion., K. Rawat, O. Hammi, F. Ghannouchi	
9:00 AM	Three Dimensional Millimeter Wave Circuits, J. Robert Reid	
9:20 AM	Characterization of Dynamic Nonlinearity in ADCs using a Wavelet Network, H. Fraz	
9:30 AM	Reconfigurable And Cost-Effective FET Mixer, A. Poddar, U. Rohde	
9:40 AM	A Total Power Radiometer (TPR) and Measurement Test Bed for Non-Contact Biomedical Sensing Applications, Q. Bonds, T. Weller, E. Maxwell, T. Ricard, E. Odu	
9:50 AM	A 2.4GHz Non-Contact Biosensor System for Continuous Vital-Signs Monitoring, R. Ichapurapu, D. Lie	
10:00 AM	X-band power transmitting module based on waveguide spatial power combining, Z. Szczepaniak, A. Arvaniti, J. Popkowski, E. Orzel-Tatarczuk	
10:10 AM	BREAK	
Silicon Circuits - Chair: Richard Abrahams Co-Chair: Gary Breed		Room: Redington
10:25 AM	A Novel Voltage Controlled Crystal Oscillator (VCXO) Circuits, A. Poddar, U. Rohde	
10:45 AM	Will Future RFIC be Flexible?, Jack Ma	
11:05 AM	Nanocrystalline Diamond RF MEMS Capacitive Switch, S.Balachandran, D.M.Hoff, A.Kumar, T. Weller	
11:25 AM	Modeling of UHF Voltage Multiplier for Radio-Triggered Wake-Up Circuit, J. Wang, L. Dong	
11:45 AM	A Fully Differential Low-Power High-Linearity 77-GHz SiGe Receiver Frontend for Automotive Radar Systems, D. Kissinger, R. Weigel	
11:55 AM	Dynamic Feedback CMOS LNA, for UWB WLAN Transform-Domain Receiver Loss of Orthogonality., M. Zebdi, D. Massicotte	
12:05 PM	LUNCH	





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Monday Parallel Session #2

Antennas - Chair: Mike Imparato Co-Chair:		Room: Redington
1:05 PM	A Polarization Diversity Multi-Beam Antenna for ZigBee Applications, Tayfun Ozdemir	
1:25 PM	CPW-Fed Arrow-Shaped Slot Antenna Design for Ultra Wideband (UWB) Applications, C. Morales-Silva	
1:45 PM	Planar UWB Conical Skirt Tapered Monopole Antenna, K. Raghu, P. Shastri, R. Stange	
1:55 PM	A Multilayer Jerusalem Cross Frequency Selective Surface with Adequate Angular Stability at the 2.4GHz ISM Band, S. Melais, T. Weller	
2:05 PM	Polarization Diversity Cognitive Antenna for WiFi and ZigBee Applications, T. Ozdemir	
2:15 PM	Planar Antenna Design for Long Range Radar Applications, D. Humphrey	
2:35 PM	Integrated dual-band dual-polarized antenna element for SAR applications, K. Wincza, S. Gruszczynski, G. Jaworski	
2:45 PM	BREAK	
Passive Circuits - Chair: Xun Gong Co-Chair:		Room: Redington
3:00 PM	A Low-Cost Test Method for Embedded RF Passive Circuits using Two-Tone Input Signals, A. Goyal	
3:20 PM	Micromachined Rectangular Coaxial Line to Ridged Waveguide Transition, N. Murad	
3:40 PM	Characterization of High-Temperature Ceramic Materials at Microwave Frequencies for MEMS Applications, X. Ren	
4:00 PM	Design, Fabrication and Measurement of a GPS-Galileo Dual-Passband Filter, O. Menendez, P. de Paco, M. RamÃ-rez, J. Verdu, E. Corrales	
4:10 PM	A New Design Method for a Dual-Band Power Divider, D. Ahn	
4:30 PM	A New Open Stubs Structure of Kuroda Low-Pass Filter using DGS' from 'Open stub of LPF design by using DGS and islands, K. Park	
6-7 pm	Poster Session & Reception	
7-9 pm	Dinner	





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Tuesday Parallel Session #1

Keynote Speakers	
8:30 AM	Joy Laskar, Analog Signal Processing and Application to Embedded Waveform Analysis
9:20 AM	Stevenson Kenney, History and Future Trends in RF Power Amplifier Linearization
10:10 AM	BREAK
Channel Modeling - Chair: Richard Gitlin Co-Chair: Huseyin Arslan	
	Room: Belleair
10:25 AM	Experimental Investigation of WCDMA Uplink Transmit Power for Practical Usage Scenarios, J. Lee, A. Bhupathi raju, M. Buehrer
10:37 AM	An Analysis of Uplink Transmit Power in WCDMA Networks, J. Lee, A. Bhupathi raju, M. Buehrer
10:49 AM	Effect of Bandwidth on Multipath Parameters Pertinent to Indoor Geolocation, Y. Ye, F. Akgul, K. Pahlavan
11:01 AM	An Electrically Reconfigurable Reverberation Chamber for the Emulation of Severe Multipath Channel, J. Cooper
11:13 AM	Interference Suppression in Radio Receivers by using Frequency Retranslation, T. Nesimoglu, Z. Charalampopoulos, M. Beach
11:25 AM	Indoor Location Estimation at Mobile Nodes Based on Angle-of-Transmission, W. Lee
11:37 AM	Underground Wireless Sensor Networks, D. Trincherro, B. Fiorelli, A. Galardini, R. Stefanelli
11:49 AM	Propagation Modeling - A CSP Approach, N. Sah, T. Chand, D. Bagai
12:00 PM	LUNCH





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Tuesday Parallel Session #1

Wireless Systems - Chair: J Schroder Co-Chair:		Room: Belleair
1:00 PM	A Thermodynamic Theory of Communications with an Emphasis on Power Transmitters, G. Rawlins	
1:20 PM	Wireless uncompressed HD (1080p) video systems, V. Cojocar	
1:40 PM	System-Level Characterization of Single-Chip Radios for Wireless Sensor Network Applications, Y. He, P. Flikkema	
1:50 PM	Performance Analysis of Persistent Scheduling for VoIP in WiMAX Networks, S. Shrivastava, R. Vannithamby	
2:00 PM	An Adaptive Fuzzy Logic Based Vertical Handoff Decision Algorithm for Wireless Heterogeneous Networks, C. Ceken, H. Arslan	
2:10 PM	Interleaver design based on linear congruences for IDMA systems, Z. Luo, A. Wong, S. Qiu	
2:20 PM	Pilot-aided Carrier Frequency Offset Estimation for OFDM Transmissions, L. Bui	
2:30 PM	A Fault Tolerant Location Management for MNANET, K. Khazaei	
2:40 PM	BREAK	
RF/Wireless Engineering Becomes Part of the New Core Curriculum - Chair: Paul Flikkema Co-Chair: Jing Wang		Room: Belleair
2:55 PM	Session Overview, T. Weller	
3:05 PM	Modeling, simulation, testing, and measurements of wireless communication systems: A laboratory based approach, H. Arslan	
3:20 PM	Beyond RFIC – An Interleaving Course of RF Integrated Systems and Wireless Communications, J. Lin	
3:35 PM	RF/Wireless Engineering - A Core Discipline for the Mobile Internet, J. Laskar	
3:50 PM	Microwave measurement techniques - train professionals with hands-on experience and promote understanding of theory, X. Gong	
4:05 PM	A Walk in the Infosphere: Rethinking EE Education in the Wireless Era, P. Flikkema	
4:20 PM	RFID INFOSEC Engineering Education, D. Thompson	
4:35 PM	Panel Session	





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Tuesday Parallel Session #2

Keynote Speakers	
8:30 AM	Joy Laskar, Analog Signal Processing and Application to Embedded Waveform Analysis
9:20 AM	Stevenson Kenney, History and Future Trends in RF Power Amplifier Linearization
10:10 AM	BREAK
Behavioral Modeling - Chair: Larry Dunleavy Co-Chair: John Wood	
	Room: Redington
10:25 AM	Introductory comments, T. Brazil, L. Dunleavy
10:30 AM	An Overview of Behavioral Modeling for Microwave Power Amplifiers, T. Brazil
10:55 AM	Why Bother with Behavioral Modeling?, S. Kenney
11:20 AM	Software Automation for Measurement-Based Behavioral Models, D. Sosa Martin, R. Connick, L. Dunleavy
11:40 AM	Practical behavioral models for microwave switches, R. Connick
12:00 PM	LUNCH





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Transistor Modeling - Chair: Peter Aaen Co-Chair: Charles Baylis		Room: Redington
1:00 PM	Session Introduction: Overview of Transistor Modeling, C. Baylis, L. Dunleavy	
1:05 PM	Modeling Considerations for GaN HEMT Devices, C. Baylis	
1:27 PM	GaN MOSHFET Temperature-Dependent Model, J. Hwang	
1:49 PM	HBT Modeling for Cellular Handset Applications, J. McMacken	
2:11 PM	Surface-Potential-Based MOSFET Models with Introduction to PSP, G. Gildenblat	
2:33 PM	LSNA for Model Validation, P. Roblin	
2:40 PM	BREAK	
Power Amplifiers - Chair: Ray Pengelly Co-Chair:		Room: Redington
2:55 PM	AlGaIn/GaN HEMT Temperature-Dependent Large-Signal Model Thermal Circuit Extraction with Verification Through Advanced Thermal Imaging., M. Casto, S. Dooley	
3:15 PM	10W GaN Inverse Class F PA with Input/Output Harmonic Termination for High Efficiency WiMAX Transmitter, D. Wu, S. Boumaiza	
3:35 PM	A Study of Memory Effects for RF Power LDMOS, P. Landin, M. Isaksson, N. Keskitalo, O. Tornblad	
3:55 PM	Study of a Polar Sigma-Delta transmitter associated to a High efficiency Switched Mode Power Amplifier for Mobile WiMax, F. Robert, M. Suarez Peñaloza, A. Diet, M. Villegas, G. Baudoin	
4:10 PM	A High-Gain High-Linearity Distributed Amplifier for Ultra-Wideband-Applications Using A Low-Cost SiGe BiCMOS Technology, B. Sewiolo, G. Fischer, R. Weigel	
4:25 PM	Driving Signal Optimization for LDMOS-SOI Class E Power Amplifier Efficiency Enhancement, L. Andia Montes, M. Villegas, G. Baudoin	

