2009 IEEE Dallas Circuits And Systems Workshop
Technical Program

DAY I: Sunday, Oct 4, 2009

10:45 AM OPENING REMARKS

11:00 AM **INVITED TALK: Design Challenges in Integrated Power Management Solutions for Mixed Signal SoCs**
Prof. Ayman Fayed, *Iowa State University*.

11:45 AM LUNCH BREAK

1:00 PM **Ultra-Low-Power Intelligent PWM Controller for Vibration Energy Harvesting Power Supplies**
Arvindh Rajasekaran, Abhiman Hande[1], Dinesh Bhatia
University of Texas at Dallas, [1] Texas Micropower

1:20 PM **Chaotic UWB based system design for ultra low power body area networks**
Sridhar Rajagopal, Noh-Gyoung Kang, Seung-Hoon Park, Kiran Bynam, Chihong Cho, Eun Tae Won, *Samsung Electronics*

1:40 PM **Supply Regulation Techniques for Phase-Locked Loops**
Vivekananth Gurumoorthy, Sam Palermo, *Texas A&M University*

2:00 PM BREAK

2:20 PM **Channelized Front Ends for Broadband Analog & RF Signal Processing with Merged LO Synthesis**
R. Gharpurey [1], Peter Kinget [2]
[1] University of Texas at Austin, [2] Columbia University

2:40 PM **An RF Variable Gain Amplifier with linear-in-dB Gain Steps and Automatic Power Consumption Optimization**
Abhijit Kumar Das, Michel Frechette, *Texas Instruments*

2009 IEEE Dallas Circuits And Systems Workshop
Technical Program (Continued)

DAY II: Monday, Oct 5, 2009

8:30 AM POSTER SETUP

9:00 AM Opening Remarks

9:05 AM **INVITED TALK: Improving Efficiency in CMOS Transmitters: Power Amplifier Trends and Challenges**
Prof. David J. Allstot, *University of Washington*

9:50 AM BREAK

10:00 AM **INVITED TALK: New Architectures for Implantable Transceivers**
Prof. Joel Dawson, *Massachusetts Institute of Technology*

10:45 AM BREAK

11:00 AM **A feasibility study of high-frequency buck regulators in nanometer CMOS**
Wei Fu, Ayman Fayed, *Iowa State University*

11:20 AM **Power Efficient Standard Cell Library Design**
Ryan Afonso, Mohammad Rahman, Hiran Tennakoon, Carl Sechen, *University of Texas at Dallas*

11:40 AM LUNCH BREAK

1:00 PM **INVITED TALK: Development of ultra low power single chip mmW CMOS sensor and communication nodes**
Prof. Joy Laskar, *Georgia Institute of Technology*

1:45 PM BREAK

2:00 PM **Sample and Hold Design Techniques for Nyquist ADC Design**
Maher Sarraj, *Texas Instruments*

2:20 PM **RLC Interconnect Modeling using Delay Algebraic Equations**
Sourajeet Roy, Anestis Dounavis, *Department of Electrical and Computer Engineering, University of Western Ontario, Canada*

3:00 PM POSTER SESSION

Computationally Efficient, Event-Driven Simulation of Wireless Transmitters Using a Noisy Local Oscillator
Socrates D. Vamvakos, Jingcheng Zhuang[2], Khurram Waheed[3]
MoSys Inc., [2]Advanced Micro Devices, [3]BitWave Semiconductor

Low Power AES Clock Recovery Circuit for Wireless Applications
Stanley Goldman. *Goldman Research*

A Direct Conversion WiMAX RF Transmitter in 0.18um CMOS Technology
Mohammad Fahad Hanif, Syed Askari, Kinchit Desai, Bhaskar Banerjee, Mehrdad Nourani, *University of Texas at Dallas*

DSP Power Reduction through Generalized Carry-Save Arithmetic
Chiu-Wei Pan, Yuanchen Song, Zhao Wang, Carl Sechen
University of Texas at Dallas

A Dual-Mode Wide-Band CMOS Oscillator
Shatam Agarwal, Ranjit Gharpurey, *University of Texas at Austin*

Elimination of Spurious Noise due to Time-to-Digital Converter
Robert Bogdan Staszewski[1], Khurram Waheed, Sudheer Vemulapalli, Prashanth Vallur, Mitch Entezari, Oren Eliezer
[1]TU Delft, Texas Instruments

Impact of Context Dependent Variability in CMOS Embedded With SiGe on Circuit Performance and Power
Ashesh Parikh, Oluwamuyiwa Olubuyide, Mak Kulkarni,
Texas Instruments

A 22mW 227Msps 11b Self-Tuning ADC Based on Time-to-Digital Conversion
Huihua Huang, Carl Sechen, *University of Texas at Dallas*

Digitally Assisted Analog Compressive Sensing
Zhuizhuan Yu, Sebastian Hoyos, *Texas A&M University*

Low Power Automated Clock Tree Generation
Elizabeth Kiefer, William Swartz, Carl Sechen
University of Texas at Dallas

4:30 PM CLOSE DOWN