

**Program for the 6th IEEE Dallas/CAS Workshop (DCAS-07)**  
*System-on-Chip (SoC): Applications, Integration, Implementation and Software*

**THURSDAY NOVEMBER 15, 2007**

- 7:30-8:30 AM **Poster Setup**
- 8:30 AM **Opening Remarks**
- 8:40 AM **Keynote Address :**  
**Si Technology Roadmap For Ubiquitous Computing, Sensing, and Perception**  
*Dr. Dennis Buss*  
Texas Instruments, Dallas, TX, U.S.A.
- 10:10 AM **BREAK**
- 10:30 AM **Invited Talk 1 : Making Better Use of Time in Mixed-Signal Circuits**  
*Prof. Michael Perrott*  
Massachusetts Institute of Technology (MIT), U.S.A.
- 12:00 PM **LUNCH**
- 1:30 PM **Invited Talk 2 : Low Power Reconfigurable Analog-to-Digital Converters**  
*Dr. Kush Gulati*  
Bitwave Semiconductor, U.S.A.
- 3:00PM **Linearization of Highly-Efficient Monolithic Class E SiGe Power Amplifiers with Envelope-Tracking (ET)**  
*Donald Y.C. Lie, J.D. Popp\*, F. Wang\*, D. Kimball\*, and L.E. Larson\**  
Texas Tech University, \*University of California, San Diego (UCSD), U.S.A.
- 3:20 PM **Digital FIR Filter Optimization Using Toggle-Based Power Estimation Tools**  
*Albina Cristian and Günther Hackl*  
GME mbH, Germany
- 3:40 PM **BREAK**
- THURSDAY POSTERS**
- 3:40 PM **Layout Parasitic Interconnections Effects on High Frequency Circuits**  
*Albina Cristian and Günther Hackl*  
GME mbH, Germany
- "Flying-Adder" PLL Based Synchronization Mechanism for Data Packet Transport**  
*Liming Xiu, Steve Clynes, Srikanth Gurrapu, Towfique Haider, Feng Ying, and Wahed Mohammed*  
Texas Instruments Inc., U.S.A.
- System-On-Chip Power Consumption Refinement and Analysis**  
*David Feinstein, Mitch Thornton, and Fatih Kocan*  
Southern Methodist University, U.S.A.
- A High-Performance Multi-Match Priority Encoder for TCAM-Based Packet Classifiers**  
*Miad Faezipour, Mehrdad Nourani*  
University of Texas at Dallas, U.S.A.
- An Efficient Implementation of Scalable Architecture for Discrete Wavelet Transform On FPGA**  
*Rabah Hassan, Michael Guarisco, Xun Zhang, and Serge Weber*  
Nancy University, France
- A New Fast Slew Buffering Algorithm Without Input Slew Assumptions**  
*Shiyan Hu and Jiang Hu*  
Texas A&M University, U.S.A.
- Closed form Equations for Inter-modulation Distortion Parameters in WCDMA Receiver Validated Through Measurements**  
*Mohammed Saif Khan and Naveen K. Yanduru\**  
Texas Instruments, Bangalore, India. \*Texas Instruments, Dallas, TX, USA.
- A CMOS Wideband LNA Using Multiple Phase Matched Frequency Staggered Resonators**  
*Diptendu Ghosh and Ranjit Gharpurey*  
University of Texas, Austin, U.S.A.
- 5:00 PM **Poster Removal**

## **FRIDAY, NOVEMBER 16, 2007**

- 7:30-8:50 AM **Poster Setup**
- 8:50AM **Invited Talk 3 : Verification of Complex Analog Integrated Circuits**  
*Dr. Ken Kundert*  
Designers-Guide Consulting, U.S.A.
- 10:20AM **BREAK**
- 10:40AM **Analysis of Third-order Intermodulation in Receiver Down-converter with Multiband Feedback**  
*Junghwan Han and Ranjit Gharpurey*  
University of Texas, Austin, U.S.A.
- 11:00 AM **Enhancement of Coexistence Performance in a DRP Based Multi-Radio Environment of a Mobile Phone**  
*Yossi Tsfati, Oren Eliezer, Ran Katz, Yaniv Tzoref, and Ofer Friedman*  
Texas Instruments Inc., Wireless Terminals Business Unit, Raanana, Israel.
- 11:20 AM **Waveform Analysis and Delay Prediction in Simultaneously Switching CMOS Gate Driven Inductively and Capacitively Coupled On-Chip Interconnects**  
*B.K. Kaushik, S. Sarkar\*, R.P. Agarwal , and R.C. Joshi*  
Indian Institute of Technology-Roorkee, \*MITS-Sikar, INDIA
- 11:40 AM **Design of a Multi-Context FPVLSI based on an Asynchronous Bit-Serial Architecture**  
*Waidyasooriya Hasitha Muthumala, Masanori Hariyama, and Michitaka Kameyama*  
Tohoku University, Japan
- 12:00pm **LUNCH**
- 1:30 PM **Invited Talk 4: Towards Efficient Spectrum Sharing**  
*Prof. Bora Nikolic*  
University of California, Berkeley, U.S.A.
- 3:00PM **A Practical Step Forward Toward Software-Defined Radio Transmitters**  
*Essam Atalla , Imran Bashir\*, Poras Balsara , Kamran Kiasaleh , and Robert Bogdan Staszewski\**  
University of Texas at Dallas, \*Texas Instruments Inc., U.S.A.
- 3:20PM **Dual-Threshold Voltage Technique for Asynchronous PCFB Linear-Pipelines**  
*Behnam Ghavami and Hossein Pedram*  
Amirkabir University of Technology, Tehran, Iran
- 3:40PM **BREAK**

## **FRIDAY POSTERS**

- 2:30PM **A Technique to Extend Tuning Range of High Frequency Quadrature VCO**  
*Diptendu Ghosh and Ranjit Gharpurey*  
University of Texas, Austin, U.S.A.
- Top-Down Simulation Methodology of a Mixed-Signal Read Channel Using Standard VHDL**  
*Robert Staszewski*  
Texas Instruments, Dallas, U.S.A.
- Modeling of an Electronic Noise and Media in a Magnetic Recording Read Channel Using VHDL**  
*Robert Staszewski*  
Texas Instruments, Dallas, U.S.A.
- PID-Controlled PLL for Fast Frequency-Hopped Systems**  
*Nil Tarim and Hayri Uyanik*  
Istanbul Technical University, Turkey
- Optimum Designing of the Cascaded Digital Filters in Wide-band Wireless Transmitters Using Genetic Algorithm**  
*Viral Parikh, Sankalp Modi , and Poras Balsara*  
University of Texas at Dallas, U.S.A.
- A 400MHz-2.4Ghz Radiation-Tolerant Self-Biased Phase-Locked Loop**  
*P. Zhu, P. Gui, W. Chen, A.Xiang, D. Gong, T. Liu, Y. Fan\*, H. Huang\*, M. Morgan\**  
Southern Methodist University, \*Texas Instruments Inc. U.S.A.
- A Speed and Accuracy-Enhanced On-Chip Current Sensor with Local Shunt Feedback**  
*Hoi Lee and Mengmeng Du*  
University of Texas at Dallas, U.S.A.
- 4:30 PM **Poster Removal**