

2010 IEEE Dallas Circuits and Systems Workshop

(DCAS 2010)

**Richardson, Texas, USA
17 – 18 October 2010**



**IEEE Catalog Number: CFP10505-PRT
ISBN: 978-1-4244-9535-1**

TABLE OF CONTENTS

A 110μW Single-Bit Continuous-time $\Delta\Sigma$ Converter with 92.5dB Dynamic Range	1
<i>S. Balagopal, R. Roy, V. Saxena</i>	
A Compact Current Steering DAC with Component Swapping Calibration	5
<i>U. Nukala, K. Lee</i>	
Accurate Self-Characterization of Mismatches in a Capacitor Array of a Digitally-Controlled Oscillator	9
<i>O. Eliezer, B. Staszewski, J. Mehta, F. Jabbar, I. Bashir</i>	
Device Physics Origin and Solutions to Threshold Voltage Fluctuations in sub 130 nm CMOS Incorporating Halo Implant	13
<i>H. Edwards, T. Chatterjee, M. Kassem, G. Gomez, F. Hou, X. Wu</i>	
Optimizing Gate Reticle to Silicon Flow for Variability in Low Power Circuits	17
<i>A. Parikh, M. Kulkarni</i>	
Design of Power-Optimal Buffers Tunable to Process Variability	21
<i>M. Lok, K. He, M. Mani, C. Caramanis, M. Orshansky</i>	
Design Automation Tools and Libraries for Low Power Digital Design	25
<i>M. Rahman, R. Afonso, H. Tennakoon, C. Sechen</i>	
Structural Verification of a WLAN System Using Built-in Self Tests	29
<i>D. Webster, J. Cavazos, D. Guy, P. Patchen, D. Lie</i>	
A Reduced-Cost Built-in Self Test for an FM Receiver	33
<i>D. Mannath, V. Montano-Martinez, I. Syllaios, S. Bhatara, M. Attaluri, Z. Parkar, S. Ang</i>	
Low Overshoot, Low Dropout Voltage Regulator with Level Detector	37
<i>R. Oberhuber, R. Prakash</i>	
0.6-2.0 V, All-CMOS Temperature Sensor	41
<i>S. Block, Y. Li, Y. Yang, C. Li</i>	
Performance Robustness Analysis of VLSI Circuits with Process Variations Based on Kharitonov's Theorem	45
<i>L. Qian, D. Zhou, S. Wang, X. Zeng</i>	
Clock Skew Automation for Power and Area Reduction in Deep Sub Micron Designs	49
<i>Y. Sundarsanam, A. Rajagopalan</i>	
A Dual Device Load Board with Dual Switched Printed Baluns	53
<i>C. Montiel, P. Arora</i>	
Self-Calibration of a Power Pre-Amplifier in a Digital Polar Transmitter	57
<i>J. Mehta, I. Bashir, V. Zoicas, Y. Wang, O. Eliezer, K. Waheed, M. Entezari, S. Larson, D. Shrestha, S. Rezeg, R. Staszewski, P. Balsara</i>	
Circuit Characterization of Low Frequency Noise in 45nm Technology Bandgap	61
<i>P. Srinivasan, A. Marshall</i>	
A Supply Insensitive Resistor-less Bandgap Reference with Buffered Output	65
<i>V. Acharya, B. Banerjee</i>	
Automated G_mC Filter Design: A Case Study in Accelerated Reuse of Analog Circuit Design	69
<i>S. Modi, S. Askari, S. Manohar, P. Balsara, M. Nourani</i>	
Author Index	