

Jose Silva-Martinez

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Academic Position

Associate Professor, Texas A&M University

Relevant professional positions (2004-Present)

- [1] Member of the Undergraduate Studies Committee Department of ECE, TAMU, since 2003.
- [2] Member of the Graduate Studies Committee, Department of ECE, TAMU, since 2004.
- [3] Associate Editor; IEEE Transactions on Circuits and systems, Part I, 2004-2005 and 2007-Present.
- [4] Member of the Editorial Board of "Journal of Electrical and Computer Engineering," Hindawi Publishing Corporation, December 2008-Present.
- [5] Member of the Editorial Board of "Micro-electronics Journal", August 2008-present.
- [6] Member of the Editorial Board of International Science & Technology Transactions, 2008-present.
- [7] Member of the Editorial Board of "Research Letters in Electronics", Hindawi Publishing Corporation, 2008-Present.
- [8] Member of the Editorial Board of "Recent Patents on Electrical Engineering", 2007-present.
- [9] Technical Committee member of the "CMOS Emerging Technologies Workshop: Research & Business Opportunities Ahead", 2007-present.
- [10] Member of the Editorial Board of VLSI Design, 2006-present.
- [11] Member of the Technical Program Committee, Symposium on Integrated Circuits and Systems Design, SBCCI 2005-present.
- [12] Member of the IEEE Analog Signal Technical Committee, IEEE Circuits and Systems Society, 2001-present.
- [13] Member of the Editorial Board, Journal of Applied Research and Technology, January 2000-present.
- [14] Review Committee Member, IEEE International Symposium on Circuits and Systems, 2005-2009.
- [15] Member of the IEEE-CASS-2008 selection work group for the Distinguished Lecturer Program (DLP) speakers, August 2008.
- [16] Paper Awards Committee Member, 18th European Conference on Circuit Theory and Design, ECCTD'07, Seville, Spain, August 2007.
- [17] Review Committee Member, 18th European Conference on Circuit Theory and Design, ECCTD'07, Seville, Spain, August 2007.
- [18] Member of the Technical Program Committee, 2007 IASTED International Conference on Circuits, Signals and Systems, 2005-2007,
- [19] Conference Chairman, The fourth IASTED International Conference on Circuits, Signals and Systems, November 20-22, 2006, San Francisco, USA.
- [20] National Science Foundation panelist, 2004-2005.

- [21] Member of the Technical Program Committee, Mexican Symposium on Instrumentation SOMI-2005, Leon Mexico, October 2005.
- [22] Member of the selection committee for the IEEE Circuits and Systems 2003-2004 Outstanding Young Author Award, March 2005.

Short courses (2004-Present)

- [1] “Continuous-Time Filters with On-Chip Tuning”, Jose Silva-Martinez and Aydin Karsilayan, Advanced Analog Circuit Design workshop, Lund Sweden, March 30-April 1, 2009.
- [2] “Fundamentals on Integrated Circuits Design: From modeling to GHz applications”, Jose Silva-Martinez, 15-hours course (>100 attendees), Universidad Jesuita de Guadalajara (ITESO), Guadalajara, Mexico, October 10-12, 2007.
- [3] “RF-to-DIGITAL Interfaces for Multi-Service Wireless Systems”, Jose Silva-Martinez, 2-hours course, 18th European Conference on Circuit Theory and Design, ECCTD'07, Seville, Spain, August 2007.
- [4] “RF Integrated Circuits Design”, Jose Silva-Martinez, 20 Hrs course, University of Veracruz, Mexico, January 2-4, 2006.
- [5] “Mixed Mode-Integrated Circuits Design”, Jose Silva-Martinez, 20 Hrs course, Polytechnical University of Catalunya, Barcelona Spain, June 2005.
- [6] “Continuous-Time Filters: From Subhertz to GigaHertz”, Jose Silva-Martinez and Edgar Sanchez-Sinencio, Half day course, IEEE International Symposium on Circuits and Systems, Vancouver Canada, May 2004.

Invited Lectures (2006-Present)

- [1] “RF-to-DIGITAL: The big challenge”, plenary lecture, Jose Silva-Martinez, XXII Conference on Design of Circuits and Integrated Systems, Seville, Spain, November 22, 2007.
- [2] “RF front-ends for Software defined Radio Applications”, Plenary lecture, Jose Silva-Martinez, Monterrey Institute of Technology, Monterrey Mexico, November 2, 2007.
- [3] “How to teach Mathematics for Engineers,” Plenary session, Jose Silva-Martinez, National Polytechnical Institute, (IPN) Campus Culhuacan, Mexico City, October 8, 2007.
- [4] “ADC’s For Software Radio: RF to Digital”, Jose Silva-Martinez, University of Texas at Austin, December 1, 2006.
- [5] “Integrated Circuit Design for Mixed-Mode Applications”, Jose Silva-Martinez, National Institute of Monterrey, Campus Puebla, Mexico, August 18, 2006.
- [6] “Design Techniques for Continuous-time Filters: From MHz up to GHz”, Jose Silva-Martinez, IEEE-JSSC Dallas Chapter and Texas Instruments, Dallas Texas, March 29, 2006.
- [7] “Design Techniques for RF and Base-band Continuous-time ICs”, Jose Silva-Martinez, PropheSi Incorporated, Austin Texas, March 24, 2006.
- [8] “CMOS Mobile DTV Tuner Design for DVB-H”, Jianhong Xiao, Jose Silva-Martinez and Edgar Sanchez-Sinencio, MICROTUNE, Dallas Texas, February 17, 2006.
- [9] “IC design for RF, Baseband and Mixed-Signal Applications”, Jose Silva-Martinez and Edgar Sanchez-Sinencio, Silicon Laboratories, Austin Texas, March 29, 2006.

Supervised Thesis: 16 Ph.D. and 38 Master students.

Students graduated in 2006.

David Hernandez-Garduno, Ph.D. Currently with Texas Instruments, Dallas Tx.

Shanfeng Cheng, Ph.D. Currently with NXP, Austin Tx.

Artur Lewinski, Ph.D. Currently with Texas Instruments, Dallas.

Bharath Kumar Thandri, Ph.D. Currently with Cirrus Logic, Austin.

Lin Chen, M. Sc. January, 2006; currently with Texas Instruments, Dallas.

Sivakumar Ganesan, M. Sc. (Co-advised). Currently with Pulsewave-RF, Austin.

Rangakrishnan Srinivasan, M. Sc. (Co-advised). Currently with Agere Systems.

Manisha Ghambir, M. Sc. (Co-advised). Currently with Marvell, California.

Students graduated in 2007.

Jianhong Xiao, Ph.D. Currently with Broadcom Corporation, Irvine California.

Richard Kamprath, M. Sc. Currently with Schullemborg, Houston, Texas.

Marvin Onabajo, M.Sc., Currently Ph.D. student at TAMU.

Students graduated in 2008.

Jinghua Li, Ph.D. Currently with Nvidia, Santa Clara California.

Vijaykumar Dhanasekaran, Ph.D. (Co-Advisor). Currently with Qualcomm, San Diego California.

Praveena Kode, M.Sc., Currently with Nvidia. Santa Clara, California.

Students graduated in 2009.

Manisha Ghambir, Ph.D. (Co-Advisor), currently with Marvell, Santa Clara California.

Rida Assad, Ph.D. Currently with Texas Instruments.

Haritha Echempati, M.Sc. currently with Qualcomm Corporation, San Diego California

Fabian Silva-Rivas, M.Sc. (Co-Advisor), Currently with Broadcom Corporation, Irvine California

Hyung-Joon Jeon, M.Sc., will pursue his PhD at TAMU

Joung Won Park, M.Sc., will pursue his PhD at UCLA.

Recent publications (77 journal papers, >130 conferences, 1 book and 8 book chapters)

Power management

- [1] "A Robust Frequency Compensation Scheme for LDO Voltage Regulators," C. K. Chava and J. Silva-Martinez, **IEEE Transactions on Circuits and Systems Part-I**, Vol. 51, pp. 1041-1050, June 2004. **Top three most downloaded IEEE TCAS-I paper during 2004 and 2005; Top three most downloaded paper**

of the TCAS-I, November 2007, March and May 2008; top four most downloaded paper of the TCAS-I in August and September 2008 and February 2009; top most downloaded paper of the TCAS-I in December 2008; top seven most downloaded paper of the TCAS-I in March 2009 and top five in April 2009. Nominated for the 2004 Darlington Award (36 citations).

- [2] “Capacitor-Less Low Dropout Voltage Regulator with Fast Transient Response,” R. Milliken, J. Silva-Martinez and E. Sanchez-Sinencio, **IEEE Transactions on Circuits and Systems, part I**. Vol. 54, pp. 1879-1890, September 2007. **Top most downloaded paper of the TCAS-I, November 2007 and May 2008; top three most downloaded paper of the TCAS-I, March 2008 and February 2009; top two most downloaded paper of the TCAS-I, August 2008, September 2008 and April 2009; top four most downloaded paper of the TCAS-I in December 2008; top five most downloaded paper of the TCAS-I in March 2009. Nominated for the 2009 Darlington Award (7 citations).**

Amplifiers and Filters

- [3] “A Robust Feedforward Compensation Scheme for Multi-Stage Amplifiers with No-Miller Capacitors”, B. K. Thandri and J. Silva-Martinez, **IEEE Journal of Solid-State Circuits**, Vol. 38, pp. 237-243, February 2003.
- [4] “A 60 mW, 150 MHz Continuous-Time Seventh Order Linear Phase Filter with Automatic Tuning System”, J. Silva-Martinez, J. Adut, M. Rocha-Perez, M. Robinson and S. Rokhsaz, **IEEE Journal of Solid-State Circuits**, Vol. 38, pp. 216-225, February 2003.
- [5] “A Low-Voltage Fully Balanced OTA with Common-Mode Feedforward and Inherent Common-Mode Feedback Detector”, A. Mohieldin, E. Sanchez-Sinencio and J. Silva-Martinez, **IEEE Journal of Solid-State Circuits**, Vol. 38, Issue 4, pp. 663-668, April 2003.
- [6] “A $2V_{pp}$, 80-200 MHz Fourth-Order Continuous-Time Linear Phase Filter With Automatic Frequency Tuning,” M. Chen, J. Silva-Martinez, S. Rokhsaz and M. Robinson, **IEEE Journal of Solid-State Circuits**, pp. 1745-1749, October 2003.
- [7] “A 270 MHz $1V_{pk-pk}$ Low-Distortion Variable Gain Amplifier in $0.35\mu m$ CMOS Process,” S. T. Tan and J. Silva-Martinez, **Analog Integrated Circuits Design and Applications**, Vo. 38, pp. 149-160, February 2004.
- [8] “Nonlinear Effects in Pseudo-Differential OTAs with CMFB”, A. Nader Mohieldin, E. Sanchez-Sinencio and J. Silva-Martinez, **IEEE Transactions on Circuits and Systems, Part-II**, pp. 762-770, October 2003.
- [9] “OTA Linearity Enhancement Technique for High Frequency Applications with IM3 Below -65 dB,” A. Lewinski and J. Silva-Martinez, **IEEE Transactions on Circuits and Systems Part-II**, pp. 542-548, November 2004. **Top 9 most downloaded IEEE TCAS-II paper during 2004.**
- [10] “Continuous-Time Common-Mode Feedback for High-Speed Switched-Capacitor Networks,” D. Hernandez-Garduno and J. Silva-Martinez, **IEEE Journal of Solid-State Circuits**, pp. 1610 - 1617, August 2005.
- [11] “A CMOS 140-mW Continuous-Time Low-Pass Filter Stabilized with a Class AB Common-Mode Feedback Operating at 550 MHz,” P. Pandey, J. Silva-Martinez and S. Liu, **IEEE Transactions on Circuits and Systems, part I**, vol. 53, pp. 811-820, April, 2006.
- [12] “An Overview of Feed-forward Design Techniques for High-Gain Wideband Operational Transconductance Amplifiers,” B. K. Thandri and J. Silva-Martinez, *Journal of Micro-electronics*, Vol. 37, pp. 1018-1029, September 2006.
- [13] “A High Frequency OTA with Robust Non-linearity Cancellation,” A. Lewinski and J. Silva-Martinez, **IEEE Transactions on Circuits and Systems part-II**, Vol. 53, pp. 896 - 900, Sept. 2006.
- [14] “Extremely Low Voltage Quasi Rail-to-Rail Operational Amplifier with a Single PMOS Input Differential Pair,” D. Baez-Villegas and J. Silva-Martinez, **IEEE Transactions on Circuits and Systems, part II**. Vol. 53, pp. 1175 - 1179, November 2006.

- [15] “A 30 MHz 5th-order Elliptic Low-pass CMOS Filter with 65dB Spurious Free Dynamic Range,” A. Lewinski and J. Silva-Martinez, **IEEE Transactions on Circuits and Systems, part I**. Vol. 54, pp. 469-480, March 2007.
- [16] “Estimation of Aliasing Effects due to Periodical Non-Uniform Individual Sampling in Switched-Capacitor Networks A Built-In Testing Technique for RF Front-Ends,” D. Hernandez-Garduno, J. Silva-Martinez and J. L. Ausin, **IEEE Transactions on Circuits and Systems**, part II. part II. Vol. 54, pp. 387-391, May 2007.
- [17] “Enhancing General Performance of the Folded-Cascode Amplifier by Recycling Current,” R. Assaad and J. Silva-Martinez, **IEE Electronics Letters**. Vol. 43, Issue 23, Nov 2007.
- [18] “A 1.1GHz 5th order Active-LC Butterworth Filter with 23dB Equalizing gain,” V. Dhanasekaran, M. Gambhir, J. Silva-Martinez and E. Sánchez-Sinencio, **IEEE Journal of Solid-State Circuits**. Vol. 42, pp 2411-2420, Nov 2007.
- [19] “Design of Three-Stage Class-AB 16W Headphone Driver Capable of Handling Wide Range of Load Capacitance,” V. Dhanasekaran, J. Silva-Martinez and E. Sánchez-Sinencio, **IEEE Journal of Solid-State Circuits**, vol. 4, pp1734-1744, June 2009.
- [20] “Recent Advances on the Design of High-Gain Wideband Operational Transconductance Amplifiers,” R. Assaad and J. Silva-Martinez, " **VLSI-Design**. To be published, 2009.
- [21] “The Recycling Folded Cascode: A General Enhancement of the Folded Cascode Amplifier,” R. S. Assaad and J. Silva-Martinez, **IEEE Journal of Solid-State Circuits**. To be published, 2009.

Analog-to-digital converters

- [22] “A 92MHz, 80dB peak SNR SC bandpass $\Sigma\Delta$ modulator based on a high GBW OTA with no Miller capacitors in 0.35 μ m CMOS technology,” B. K. Thandri and J. Silva-Martinez, **IEEE Transactions on Circuits and Systems, part II**, Vol. 53, pp. 412 – 416, May 2006.
- [23] “A 65 dB SNR, 75 mW bandpass RF $\Sigma\Delta$ ADC at 950 MHz using 3.8 GHz clock in 0.25 μ m SiGe BiCMOS technology,” B. K. Thandri and J. Silva-Martinez, **IEEE Journal of Solid-State Circuits**, vol. 42, pp. 269-279, February 2007. **Top 47 paper accessed in IEEE overall, February 2007, Top 83 paper accessed in IEEE overall, March 2007, and top 10 most read paper of the IEEE Journal of Solid-State Circuits, February 2007.**
- [24] “Digital Based Calibration Technique for Continuous-Time Bandpass Sigma-Delta Analog-to-Digital Converters,” F. Silva-Rivas, C.Y. Lu, P. Kode, B. K. Thandri, and J. Silva-Martinez, **Analog Integrated Circuits and Signal Processing**, Vol. 59, pp. 91-95, April 2009.

RF and Building Blocks

- [25] “A 2.4-GHz Monolithic Fractional-N Frequency Synthesizer with Robust Phase-switching Prescaler and Loop Capacitance Multiplier,” K. Shu, E. Sanchez-Sinencio, J. Silva-Martinez, **IEEE Journal of Solid-State Circuits**, pp. 866–874, June 2003. **Within the Most-Read IEEE-JSSC Articles for 2003.**
- [26] “A 1.3V, 5mW Fully-Integrated Programmable Bandpass Filter at 2.1GHz in 0.35 μ m CMOS”, F. Dülger, E. Sánchez-Sinencio and J. Silva-Martinez, **IEEE Journal of Solid-State Circuits**, pp. 918–928, June 2003.
- [27] “A 2.7V, 1.8GHz, 4th Order Tunable LC Bandpass Filter with \pm 0.25dB Passband Ripple”, A. Mohieldin, E. Sánchez-Sinencio and J. Silva-Martinez, **IEEE Journal of Solid-State Circuits**, pp. 1172–1181, July 2003.
- [28] “Frequency Planning and Synthesizer Architectures for Multiband OFDM UWB Radios,” C. Mishra, A. Valdes-Garcia, F. Bahmani, A. Batra, E. Sánchez-Sinencio and J. Silva-Martinez, **IEEE Transactions on**

Microwave Theory and Techniques, pp. 3744-3756, December 2005. **Within the Top 100 papers accessed in IEEE overall, December 2005.**

- [29] “A Highly Linear Low Noise Amplifier,” S. Ganesan, E. Sánchez-Sinencio and J. Silva-Martinez, **IEEE Transactions on Microwave Theory and Techniques**, Vol. 54, pp. 4079 – 4085, Dec. 2006.
- [30] “An 11-Band 3.4 to 10.3 GHz MB-OFDM UWB Receiver in 0.25 μ m SiGe BiCMOS,” A. Valdes-Garcia, C. Mishra, F. Bahmani, J. Silva-Martinez and E. Sánchez-Sinencio, **IEEE Journal of Solid-State Circuits**. vol. 42, pp. 935-948, April 2007. **Top 24 paper accessed in IEEE overall, April 2007, and top 3 most read paper, April 2007, of IEEE- Journal of Solid-State Circuits.**
- [31] “An Injection-Locked Frequency Divider with Multiple Highly Nonlinear Injection Stages and Large Division Ratios,” H. Tong, S. Cheng, A. I. Karsilayan and J. Silva-Martinez, **IEEE Transactions on Circuits and Systems, part II**. Vol. 54, pp. 474-478, June 2007.
- [32] “A Fully-Differential Low-Power Divide-by-8 Injection-Locked Frequency Divider Up to 18GHz,” S. Cheng, H. Tong, J. Silva-Martinez and A. Karsilayan, **IEEE Journal of Solid-State Circuits**. vol. 42, pp. 583-591, March 2007. **Within the Top 100 papers accessed in IEEE overall, February 2007, and top 10 most read paper of the IEEE- Journal of Solid-State Circuits, March 2007.**
- [33] “A High Dynamic Range CMOS RF Variable Gain Amplifier for Mobile DTV Tuner,” J. Xiao, I. Mehr and J. Silva-Martinez, **IEEE Journal of Solid-State Circuits, 2006**. vol. 42, pp. 292-301, February 2007. **Top 18 paper accessed in IEEE overall, February 2007, and top 2 most read paper, February 2007, of IEEE- Journal of Solid-State Circuits. Within the Top 100 paper accessed in IEEE overall, March 2007; Top 9 most accessed paper during the first quarter of 2007, IEEE- Journal of Solid-State Circuits.**
- [34] “Applications of Multi-Path Transform-Domain Charge-Sampling Wideband Receivers,” P. K. Prakasam, M. Kulkarni, X. Chen, Z. Yu, S. Hoyos, J. Silva-Martinez and E. Sanchez-Sinencio, **IEEE Transactions on Circuits and Systems, part II**; Vol. 55, pp. 309-313, April 2008.
- [35] Robust Derivative superposition Method for Linearizing Broadband LNAs,” H. M. Geddada, J. Won-Park and J. Silva-Martinez. **IEE Electronics Letters**, Vol. 45, pp. 435-436, April 2009.
- [36] “System and Circuit Design for a MB-OFDM UWB Frequency Synthesizer,” C. Mishra, A. Valdes-Garcia, E. Sanchez-Sinencio and J. Silva-Martinez, **IEEE Transactions on Circuits and Systems, part I**. To be published 2009.

Wireline and data communication circuits

- [37] “Low-Voltage Low-Power LVDS Drivers,” M. Chen. J. Silva-Martínez, M. Nix and M. Robinson, **IEEE Journal of Solid-State Circuits**, pp. 472-479, February 2005.
- [38] “Design and Analysis of an Ultrahigh-Speed Glitch-Free Fully Differential Charge Pump with Minimum Output Current Variation and Accurate Matching,” S. Cheng, H. Tong, J. Silva-Martinez and A. Karsilayan, **IEEE Transactions on Circuits and Systems, part II**, Vol. 53, pp. 843 - 847, Sept. 2006.
- [39] “Low-Power Architecture and Circuit Techniques for High-Boost Wide-Band Gm-C Filters,” M. Gambhir, V. Dhanasekaran, J. Silva-Martinez and E. Sánchez-Sinencio, **IEEE Transactions on Circuits and Systems, part I**. Vol. 54, pp. 458-468, March 2007.
- [40] “Steady-state Analysis of Phase-locked Loops Using Binary Phase Detector,” S. Cheng, H. Tong, J. Silva-Martinez and A. I. Karsilayan, **IEEE Transactions on Circuits and Systems, part II**. Vol. 54, pp. 474-478, June 2007.
- [41] “A 1.1GHz 5th order Active-LC Butterworth Filter with 23dB Equalizing gain,”V. Dhanasekaran, M. Gambhir, J. Silva-Martinez and E. Sánchez-Sinencio, **IEEE Journal of Solid-State Circuits**. Vol. 42, pp 2411-2420, Nov 2007.

- [42] "A Fully Integrated CMOS Clock Data Recovery IC for OC-192 Applications," J. Li, J. Silva-Martinez, B. Brunn, S. Rokhsaz and M. E. Robinson, **IEEE Transactions on Circuits and Systems, part I**. Vol. 55, pp 1213-1222, June 2008.
- [43] "A 1Gb/s 5-Tap Fractionally-Spaced Equalizer in CMOS 0.35 μ m", D. Hernandez-Garduno and J. Silva-Martinez, **IEEE Journal of Solid-State Circuits**. vol. 43, pp. 2482 - 2491, November 2008.

Built-in Testing

- [44] "An On-Chip Spectrum Analyzer for Analog Built-In Testing," M. Mendez-Rivera, J. Silva-Martinez, E. Sanchez-Sinencio, and A. Valdes-Garcia, **Journal of Electronic Testing: Theory and Applications**, pp. 205-219, 2005.
- [45] "On-chip Testing Techniques for RF Wireless Transceivers," A. Valdes-Garcia, J. Silva-Martinez and E. Sánchez-Sinencio, Invited paper, **IEEE Design & Test of Computers**, Vol. 23, pp. 268 – 277, April 2006.
- [46] "An Integrated Frequency Response Characterization System for Analog Testing," A. Valdes-Garcia, F. Hussein J. Silva-Martinez and E. Sánchez-Sinencio, **IEEE Journal of Solid-State Circuits**, vol. 41, pp. 2301 – 2313, October 2006.
- [47] "A Broadband CMOS Amplitude Detector for On-Chip RF Measurements," A. Valdes-Garcia, R. Venkatasubramanian, J. Silva-Martinez and E. Sánchez-Sinencio, **IEEE Transactions on Instrumentation and Measurement**. Vol. 57, pp. 1470-1477, July 2008.
- [48] "A Built-In Testing Technique for RF Front-Ends," X. Fan, M. Onabajo, J. Silva-Martinez and E. Sanchez-Sinencio, **IEEE Transactions on Circuits and Systems, part I**. Vol. 55, pp 1794 -1804, August 2008.
- [49] "An On-Chip Loopback Block for RF Transceiver Built-In Test," M. Onabajo, J. Silva-Martinez, F. Fernandez, and E. Sánchez-Sinencio. **IEEE Transactions on Circuits and Systems, part II**. To be published 2009.

Applications and Education

- [50] "Efficient Circuit Implementation of Morlet Wavelets," M. Meléndez-Rodríguez, J. Silva-Martinez, and R. Spencer, **Journal of Applied Research and Technology**, pp. 52-63, 2005.
- [51] "Low Power Fully Integrated CMOS DTV Tuner Front-End for ATSC Terrestrial Broadcasting," J. Xiao, G. Zhang, T. Li and J. Silva-Martinez," **VLSI-Design**. February, 2007.
- [52] "A graphical approach to teaching amplifier design at the undergraduate level," R. Assaad and J. Silva-Martinez, **International Journal of Electrical Engineering Education (IJEED)**. Vol. 52, pp. 39-45 February 2009. **Top two most accessed paper of the IJEED during March 2009 and top six in April 2009.**

Conference Papers (2003-present)

- [1] "A 16mW, 2.23-2.45GHz Fully Integrated $\Sigma\Delta$ PLL with Novel Prescaler and Loop Filter in 0.35 μ m CMOS," K. Shu (Student), E. Sánchez-Sinencio, J. Silva-Martínez, and S. H. K. Embabi, **IEEE Radio Frequency Integrated Circuits (RFIC) Symposium, June 8-10, 2003. BEST STUDENT PAPER AWARD.**
- [2] "An Analog Integrated Circuit Design Laboratory," A. Mondragon-Torres, T. Mayhugh Jr., J. Pineda de Gyvez, J. Silva-Martinez and E. Sanchez-Sinencio, Proc. 2003 International Conference on Microelectronic Systems Education, pp. 91-92, June 1-2, 2003.

- [3] "On-Chip Spectrum Analyzers for Analog BIST," A. Valdes-Garcia, M. Mendez-Rivera, J. Silva-Martinez and E. Sanchez-Sinencio, SRC Symposium, Dallas Texas, Aug. 2003.
- [4] "A 58 dB SNR 6th Order Broadband 10.7 MHz SC-Ladder Filter," J. Silva-Martínez, J. Adut and M. Rocha-Perez, IEEE Custom Integrated Circuits Conference, pp. 13-16, October 2003.
- [5] "OTA Linearity Enhancement Technique for High Frequency Applications with IM3 below -65 dB," Artur Lewinski and J. Silva-Martínez, IEEE Custom Integrated Circuits Conference, pp. 9-12, October 2003.
- [6] "A 92MHz, 80dB peak SNR SC bandpass $\Sigma\Delta$ modulator based on a high GBW OTA with no Miller capacitors in 0.35 μ m CMOS technology," B. K. Thandri, J. Silva-Martinez, J. M. Rocha-Perez and J. Wang, IEEE Custom Integrated Circuits Conference, pp. 123-126, September 2003.
- [7] "An On-Chip Transfer Function Characterization System for Analog Built-in Testing," Alberto Valdes-Garcia, Jose Silva-Martinez and Edgar Sánchez-Sinencio, IEEE VLSI Test Symposium, 2004, pp. 261 – 266, April 2004.
- [8] "Bandwidth Enhancement for Multi-Stage Amplifiers Using Active Feedback," M. R. Samadi, A. Karsilayan and J. Silva-Martinez, International Symposium on Circuits and Systems, May 2004.
- [9] "6.8mW 2.5GB/S and 42.5mW 5GB/S 1:8 CMOS Demultiplexers," Shanfeng and J. Silva-Martinez, IEEE International Symposium on Circuits and Systems, May 2004.
- [10] "A 500 MHz OTA-C 4th order Lowpass Filter with Class AB CMFB in 0.35 μ m CMOS Technology", Pankaj Pandey, Jose Silva-Martinez and Xuemei Liu, IEEE Custom Integrated Circuits Conference, pp. 57-60, October 2004.
- [11] **"A CMOS RF RMS Detector for Built-in Testing of Wireless Transceivers" A. Valdes-Garcia, J. Silva-Martinez and E. Sánchez-Sinencio, IEEE VLSI Test Symposium, 2005. A. Valdes-Garcia got the BEST DOCTORAL THESIS AWARD.**
- [12] "Built-In Testing Design and Calibration Techniques and IC Continuous-Time Systems," J. Silva-Martinez, E. Sanchez-Sinencio, M. Gambhir, V. Dhanasekaran, A. Valdés-García, R. Venkatasubramanian, and R. Srinivasan, SRC Annual project review, Atlanta Georgia, May 2005.
- [13] "A 3GHz-10GHz Common Gate Ultrawideband Low Noise Amplifier," X. Fan, Edgar Sánchez-Sinencio, and Jose Silva-Martinez, IEEE Midwest Symposium on Circuits and Systems, August 2005.
- [14] "RF Bandpass Filter Design Using Capacitive Degeneration," A. Valdes-Garcia, J. Silva-Martinez and E. Sánchez-Sinencio, IEEE Midwest Symposium on Circuits and Systems, August 2005.
- [15] "Design Consideration for LPF with Gain Boosting in GHz-range Application," F. Hussien, R. Assaad, J. Silva-Martinez, E. Sanchez-Sinencio, IEEE Midwest Symposium on Circuits and Systems, August 2005.
- [16] "Implementation of Built-In Testing Techniques for Analog and RF Integrated Circuits", A. Valdes-Garcia, J. Silva-Martinez and E. Sanchez-Sinencio, SRC TECHCON Conference, October 2005
- [17] "An 11-Band 3.4 to 10.3 GHz MB-OFDM UWB Receiver in 0.25 μ m SiGe BiCMOS," A. Valdes-Garcia, C. Mishra, F. Bahmani, J. Silva-Martinez, E. Sanchez-Sinencio, Proc. of the 2006 Symposium on VLSI Circuits, June 2006.
- [18] "A Carrier Frequency Generator for Multi-Band UWB Radios," C. Mishra, A. Valdes-Garcia, E. Sánchez-Sinencio and J. Silva-Martinez, *IEEE Radio Frequency Integrated Circuits (RFIC) Symposium*, June, 2006.
- [19] "A 3.8GHz, 75 mW, 10 bit Continuous-Time Bandpass $\Sigma\Delta$ ADC in 0.25 μ m BICMOS Technology," Bharath K. Thandri, and Jose Silva-Martínez, IEEE Midwest Symposium on Circuits and Systems, August 2006.
- [20] "Strategic Test Cost Reduction with On-Chip Measurement Circuitry for RF Transceiver Front-Ends –An Overview," M. Onabajo, F. Fernandez, J. Silva-Martinez, and Edgar Sánchez-Sinencio, IEEE Midwest Symposium on Circuits and Systems, August 2006.

- [21] "A System Design for Integrated DVB-H DTV Tuner," J. Xiao, and J. Silva-Martínez, The fourth IASTED International Conference on Circuits, Signals and Systems, November 20-22, San Francisco, November 2006.
- [22] **"A CMOS 1Gb/s 5-Tap Transversal Equalizer based on Inductor-Less Third-Order Delay Cells," D. Hernandez-Garduno, J. Silva-Martínez, ISSCC Feb. 2007.**
- [23] "A Fully On-Chip 10Gb/s CDR in a Standard 0.18 μm CMOS Technology," J. Li and J. Silva-Martínez, to be presented in IEEE-RFIC, June 2007.
- [24] **"Built-in Self Test of RF Transceiver SoCs: from Signal Chain to RF Synthesizers," A. Valdez, B. Bakkaloglu, J. Silva-Martínez and E. Sanchez-Sinencio. This is an invited paper; IEEE-RFIC, June 2007.**
- [25] "Design Challenges for a CMOS High-Performance RF-to-DIGITAL Interface for Multi-Services Wireless Communication Systems," J. Silva-Martínez, B. K. Thandri, C.Y. Lu and F. Silva-Rivas, "CMOS Emerging Technologies Workshop: Research & Business Opportunities Ahead," Whistler Canada, July 11-13, 2006.
- [26] **"A 1.2mW 1.6Vpp-Swing Class-AB 16Ω Headphone Driver Capable of Handling Load Capacitance up to 22 nF," V. Dhanasekaran, J. Silva-Martínez and E. Sanchez-Sinencio, ISSCC; February 2008.**
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