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Interest

My current research and job interest is the development of analog integrated circuits in CMOS and Bipolar technology. This includes the theoretical analysis of some present problems within mixed signal CMOS implementation, like the transistor model for high frequency, noise and nonlinearity issues for design and implementation of different circuits for practical applications.

Aside the study of novel architectures of low power circuits, the mixed signal processing circuits and the integration in a system-on-chip SOC of transceivers, are other areas of my interest.

Education

M.S.E.E University of São Paulo, São Paulo - Brazil, September 2001 - September 2003.
Dissertation: "A methodology for CMOS Low Noise Amplifier Design"

Electrical Engineering. Industrial University of Santander. Dec. 1999. Bucaramanga, Colombia.

Experience

Test structures in 0.18um ST CMOS technology, design and measure. March-April 2003.

Full Custom Design and Layout of a 2.4 GHz Low Noise Amplifier fully integrated in 0.35um AMS CMOS technology. January-April 2003.

Assistant Professor: Industrial University of Santander, October of 2003 – Present. Courses: Analog Circuit Design, Microelectronic I (Analog LSI) and II (Digital VLSI).

Assistant Professor: Technological institute (Corporación Tecnológica Centrosistemas), of DSPs and FPGAs for digital signal processing. January 2000 – July 2001.

Academic Relevant Courses: CMOS Process, Integrated Circuits RF CMOS, CMOS VLSI Design, High Level Synthesis, Integrated Circuits Testability.

Skills

EDA tools: Mentor IC Flow, ADS 2002, HSpice, OrCAD of Cadence, Altera Maxplus (FPGA Synthesis), Spectre RF and Virtuoso Layout of Cadence.

Programming: VHDL, C/C++, Matlab, Assemby, Bash-script.

Environments: Unix, Linux, Windows 98/NT/2000.

Theoretical background relevant in Analog CMOS Design, RFIC CMOS, DSP, ANN and HL Synthesis.

Publications

Roa, E.; Navarro J.; Noije W.; "A Methodology for CMOS Low Noise Amplifier Design", *IEEE* Proceedings, Computer Society, SBCCI 2003.

References

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