

CHRISTOPHER SANABRIA

E-mail: sanabria@ece.ucsb.edu

Web page: <http://my.ece.ucsb.edu/sanabria/research/Research.htm>

OBJECTIVE

Obtain an entry research, design, or application engineer position with a focus on circuits and/or devices for emerging applications.

EDUCATION

Ph.D. and M.S., Electrical Engineering, University of California, Santa Barbara, Expected May 2006
GPA 3.7/4.0

B.S., Electrical Engineering, University of Notre Dame, May 2001
GPA 3.61/ 4.0, Magna Cum Laude

TECHNICAL WORK EXPERIENCE

Research Assistant *University of California* 3/02 – present Santa Barbara, CA

- Completed noise figure measurements, studies and theoretical analysis of GaN HEMTs
- Performed low-frequency noise measurements and studies of GaN HEMTs
- Designed and fabricated oscillators in GaN HEMT-based technology and measured phase noise
- Characterized DC & RF performance of GaN HEMTs,
- Maintained our network of ~30 computers for 3 years
- Created numerous research presentations and a few posters for reviews and school functions
- Played a lead role in maintaining our lab, used by ~30 researchers
- Volunteered time for middle school science fair mentoring and project judging for 2 years

Intern *Agilent Technologies, Labs* 06/03 – 09/03 Palo Alto, CA

- Developed MEX file drivers for the HP 8510B VNA & HP 54120 digitizing oscilloscope
- Created code to control a harmonic load-pull system in Matlab
- Documented and packaged the work for use by other employees

Teaching Assistant *University of California* 10/01 – 3/02 Santa Barbara, CA

- Was the sole TA for a sophomore entry-level electronics class and junior-level microwave electronics class
- Lead labs, graded assignments, held office hours, met with students as necessary
- Wrote short manual introducing ADS to a complete novice
- Prepared and carried out guest lectures for the professor

Intern *Texas Instruments* 05/00 – 08/00 Houston, TX

- Worked with Microcontrollers Applications Group on Trouble Not Identified cases of applications of the TMS470
- Helped update Class II validation
- Simulated and collected data on possible jitter effects for TMS470 ADC using Matlab

Intern *Delphi-Delco Electronics* 05/98 – 08/98, 05/99 – 08/99 Kokomo, IN

- Summer 1999: Worked with Advanced Engineering Sensors group running experiments on a Bond Etch Back (BEBU) process
- Headed the student community service group, SHOC (Students Helping Our Community)
- Summer 1998: Evaluated Simulink for company considerations as a new layout and simulation tool for engine controllers

CHRISTOPHER SANABRIA

TECHNICAL SKILLS

Computer Programs:

Advanced design system (ADS), Matlab, Origin, C, html, Simulink, UNIX, general Microsoft programs, LaTeX, Perl, Photoshop, Illustrator, & Dreamweaver

Measurement Equipment Proficiencies:

Maury Microwave source-pull noise figure system (some power load-pull experience too), HP 3048 phase noise system, Agilent 4145/4155 semiconductor parameter analyzer, various spectrum analyzers and signal generators, oscilloscopes, VNAs and other small lab equipment

Major Clean Room Equipment Proficiencies:

CGA Stepper, Plasmatherm Reactive Ion Etcher, AET Rapid Thermal Annealer, Plasma-Therm Plasma Enhanced Chemical Vapor Deposition, various Electron-Beam Evaporators.

AWARDS

- GEM Ph.D. Fellowship recipient, 2003
- GEM Masters Fellowship recipient, 2000
- Four-time General Motors Minority Engineering and Science Scholarship recipient, 1997 – 2000
- First alternate for AT&T Labs fellowship, 2000

CONFERENCES/PUBLICATIONS

Chris Sanabria, Arpan Chakraborty, Hongtao Xu, Mark J. Rodwell, Umesh K. Mishra, and Robert A. York, *The Effect of Gate Leakage on the Noise Figure of AlGaIn/GaN HEMTs*, IEEE Electron Device Letters, January 2006.

Chris Sanabria, Hongtao Xu, Arpan Chakraborty, Mark J. Rodwell, Umesh K. Mishra, and Robert A. York, *Noise Figure Measurements and Modelling of Field-Plated AlGaIn/GaN HEMTs*, International Conference on Nitride Semiconductors, Bremen, Germany, August 2005.

Chris Sanabria, Hongtao Xu, Sten Heikman, Umesh K. Mishra, Robert A. York, *A GaN Differential Oscillator with Excellent Harmonic Performance*, IEEE Microwave and Wireless Components Letters, July 2005.

Chris Sanabria, Hongtao Xu, Tomás Palacios, Arpan Chakraborty, Sten Heikman, Umesh K. Mishra, Robert A. York, *Influence of Epitaxial Structure in the Noise Figure of AlGaIn/GaN HEMTs*, IEEE Microwave Theory and Technique Transactions, February 2005.

Chris Sanabria, Hongtao Xu, Tomás Palacios, Arpan Chakraborty, Sten Heikman, Umesh K. Mishra, Robert A. York, *Influence of the Heterostructure Design on Noise Figure of AlGaIn/GaN HEMTs*, Device Research Conference, Notre Dame, IN, June 2004.

References available upon request.