

## COLIN PARDUE – ELECTRICAL ENGINEERING PH.D. STUDENT

### EXPERIENCE

#### **ENGINEERING INTERN, LUMINANT**

Summer 2009 and 2010

- Tag mapping with PI software and IT related tasks
- Assisted design and maintenance of several high power systems

#### **GRADUATE RESEARCH ASSISTANT, GEORGIA TECH**

##### **ADVISER: DR. MADHAVAN SWAMINATHAN, MIXED SIGNAL DESIGN GROUP**

August 2012 – Present

- Research topics emphasize RF sensor design and CNT and ZnO high frequency characterization
- Simulation, fabrication, and measurement of microstrip circuits

#### **ENGINEERING INTERN, SANDIA NATIONAL LABORATORIES: ISAFE PROGRAM**

Summer 2013/2014

- Part of a 15-20 member intern department, often working collaboratively on projects
- Project topics include telemetry for an autonomous surveillance vehicle, antenna simulations with CST, and propagation related tasks

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### EDUCATION

#### **BAYLOR UNIVERSITY – WACO, TX – BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING**

- GPA: 3.98 overall, 4.00 major
- Graduated Summa Cum Laude and from the Honors Program with Distinction in May 2011
- Regent's Gold Scholarship
- Published in the Baylor undergraduate research journal and wrote an undergraduate thesis concerning microstrip metamaterials

#### **GEORGIA TECH – ATLANTA, GA – PH.D. IN ELECTRICAL ENGINEERING (IN PROGRESS)**

##### **MASTERS IN ELECTRICAL ENGINEERING (DEC 2013)**

- GPA: 3.65 overall, 3.63 major
  - Expected 2017 Graduation
  - President's Fellowship from Georgia Tech
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SKILLS & ABILITIES

- Areas of Expertise and Experience: RF Component Design, Sensor Design, Antennas, Material Characterization, and RF device measurements
  - Software: CST Studio Suite, ADS (Circuit Simulator), Matlab, Eagle, Sonnet
  - Some proficiency with C/C++, Java, VHDL, Python, Machine Learning, R
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LEADERSHIP,  
TEACHING, AND  
COMMUNICATION

- Instructor for Georgia Tech Linear Circuits Class Fall 2013-Fall 2014, teaching a lecture section and writing problems/quizzes hosted on Coursera (MOOC)
  - Teaching assistant at Georgia Tech for 3 semesters for undergraduate electromagnetics
  - Drumline Captain in Baylor University Marching Band, and student leader in Baylor Youth Ministry Teams and HKN
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PUBLICATIONS

- **Colin Pardue**, Krishna Naishadham, Xiaojuan Song, Madhavan Swaminathan, "Integration of Carbon Nanotube Films with SRRs for Air Quality Sensing Applications." WAMICON 2014 Paper Accepted
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RELEVANT  
COURSEWORK AND  
PROJECTS

Coursework

- High Frequency Electronics I and II
- Microwave Design and Microwave Design Lab
- Applied Electromagnetics
- Intro to Antenna Engineering
- Intro to Microelectronics Technology
- Wireless IC Design
- Integrated Optics
- Advanced Topics in Electromagnetics: Propagation

Projects

- LNA, oscillator, and power amplifier design and simulations
- Planar antenna design and fabrication
- Microstrip resonator, microstrip filter, and substrate integrated waveguide design for RF sensors
- Charge pump for microwave energy harvesting and frequency hopper design and fabrication
- Free space characterization of materials
- Design of TRL and SOLT calibration standards