

Trang T. Thai

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Objective

To obtain a Research Intern position in Summer 2012 or full time Research position starting in 2013 that is related to Radio Frequency sensing, microwave engineering, wireless technology and multidiscipline sensing research.

Education

Georgia Institute of Technology, Atlanta, GA 08/2008 – 12/2012 (expected graduation)

- PhD in Electrical Engineering

Georgia Institute of Technology, Atlanta, GA 01/2005 – 05/2008

- Bachelor of Science in Electrical Engineering with Research Option Thesis – Honor
- Bachelor of Science in Physics – Honor

Awards and Honors

- Microsoft Research PhD Fellowship 2011 (two-year fellowship program for outstanding PhD students nominated by their universities, <http://research.microsoft.com/en-us/collaboration/awards/apply-us.aspx>).
- PhD Fellowship at Laboratory for Analysis and Architecture of Systems (LAAS-CNRS), Toulouse, France: 1st time Sept-Dec 2009, 2nd time Sept-Dec 2010.
- Second prize winner of Student Paper Competition at 2009 IEEE Antennas and Propagation Society International Symposium, Charleston, SC, June 2009.
- Finalist in the 2008 Motorola/IEEE CPMT Society Graduate Student Fellowship for Research on Electronic Packaging.
- Finalist in the 2007 Georgia Tech Student Paper Competition sponsored by Science Applications International Corporation (SAIC).
- 2007 IEEE Microwave Theory and Techniques Society (MTT-S) Undergraduate/Pre Graduate Scholarship Award.
- ECE Undergraduate Research Award (2007 Roger P. Webb Awards Program, Georgia Tech) Georgia Tech President's Undergraduate Research Award (Spring 2007).
- Georgia Tech Delegate in ACC Undergraduate Research Conference at University of Virginia, Charlottesville, Virginia (April 2007).

Publications

- Trang T. Thai, Herve Aubert, Patrick Pons, Manos M. Tentzeris, and Robert Plana, "Design of a Highly Sensitive Wireless Passive RF Strain Transducer," Accepted for presentation at IEEE International Microwave Symposium, Baltimore, MD, June 2011.
- Trang T. Thai, Li Yang, Gerald R. DeJean, and Manos M. Tentzeris, "Wireless/Microwave Passive Gas Sensors based on Carbon Nanotube Technologies," Invited paper in IEEE Microwave Magazine, June 2011.
- Trang T. Thai, Franck Chebila, Jatlaoui M. Mehdi, Patrick Pons, Herve Aubert, Gerald R. DeJean, Manos M. Tentzeris, and Robert Plana, "Design and development of a millimetre-wave novel passive

ultrasensitive temperature transducer for remote sensing and identification." Microwave Conference (EuMC), pp. 45-48, Paris, France, Oct 2010.

- Trang T. Thai, Jatlaoui M. Mehdi, Herve Aubert, Patrick Pons, Gerald R. DeJean, Manos M. Tentzeris, and Robert Plana, "A Novel Passive Wireless Ultrasensitive Temperature RF transducer for Remote Sensing." IEEE International Microwave Symposium, pp. 473-476, Anaheim, CA, May 2010.
- Trang T. Thai, Franck Chebila, Jatlaoui M. Mehdi, Patrick Pons, Herve Aubert, Gerald R. DeJean, Manos M. Tentzeris, and Robert Plana, "A Novel Passive Ultrasensitive RF Temperature Transducer for Remote Sensing and Identification Utilizing Radar Cross Sections Variability." IEEE Antennas and Propagation Society International Symposium, pp. 1-4, Toronto, Ontario, Canada, July 2010.
- T. T. Thai, G. R. DeJean, M. M. Tentzeris, "A Novel Front-End Radio Frequency Pressure Transducer based on a Millimeter-Wave Dual-band Resonator for Wireless Sensing." IEEE International Microwave Symposium, pp. 1701-1704, Boston, MA, June 2009.
- T. T. Thai, G. R. DeJean, M. M. Tentzeris, "A Novel Ultrasensitive Millimeter-Wave Pressure Transducer Utilizing a Si Membrane and a Stacked-Patch Configuration." IEEE Antennas and Propagation Society International Symposium, pp. 1-4, Charleston, SC, June 2009. Second Prize Winner of Student Paper Contest.
- Trang Thai, Justin Ratner, Wenhua Chen, Tushar Thrivikraman, Gerald DeJean, Manos Tentzeris, "First Generation of Ultrathin Polarized NanoMaterials for Millimeter-Wave (26-40 GHz) Textile Antenna Applications." IEEE Antennas and Propagation Society International Symposium, pp. 1-4, Charleston, SC, June 2009.
- Trang Thai, Justin Ratner, Wenhua Chen, Gerald DeJean, Manos Tentzeris, "Characterization and Testing of Novel Polarized Nanomaterial Textiles for Ultrasensitive Wireless Gas Sensors." IEEE Electronic Components and Technology Conference, pp. 1049- 1052, San Diego, CA, May 2009.
- Trang Thai, Justin Ratner, Gerald DeJean, Anya Traille, Li Yang, and Manos Tentzeris, "Ultrasensitive Wireless Gas-Sensor Utilizing Carbon Nanotubes on Paper, Liquid and Organic Substrates." Invited talk at National Radio Science Meeting, Boulder, CO, 2009.
- T. T. Thai, G. R. DeJean, and M. M. Tentzeris, "Design and Development of a Novel Compact Soft-Surface Structure for the Front-to-Back Ratio Improvement and Size Reduction of a Microstrip Yagi Array Antenna." IEEE Antennas and Wireless Propagation Letters, Vol.7, pp. 369-373, 2008.
- T. T. Thai, A. Haque, G. R. DeJean, M. M. Tentzeris, "A Novel Ultrasensitive Gas Detector System Based on Carbon Nanotube Mixtures and Antenna Radiation Variation." IEEE Antennas and Propagation Society International Symposium, pp. 1-4, San Diego, CA, July 2008.
- T. T. Thai, A. Haque, J. Ratner, G. R. DeJean, M. M. Tentzeris, "Development of a Fully-Integrated Ultrasensitive Wireless Sensor Utilizing Carbon Nanotubes and Surface Plasmon Theory." IEEE Electronic Components and Technology Conference, pp. 436-439, Orlando, FL, May 2008.
- T. T. Thai, A. Traille, and M. M. Tentzeris, "Design and Development of Carbon-Nanotube EBG's Sensors." Invited talk at PIERS 2007, Prague, Czech Republic.
- T. T. Thai, G. R. DeJean and M. M. Tentzeris, "Design and development of a novel compact softsurface structure for the front-to-back ratio improvement and size reduction of microstrip Yagi antenna arrays." Proc. of the 2007 IEEE Antennas and Propagation Society International Symposium, pp.1193-1196, Honolulu, Hawaii, June 2007.
- G. R. DeJean, T. T. Thai, S. Nikolaou and M. M. Tentzeris, "Design and analysis of microstrip bi-Yagi and quad-Yagi antenna arrays for WLAN applications." IEEE Antennas and Wireless Propagation Letters, Vol.6, pp.244-248, April 2007.

- G. R. DeJean, T. T. Thai and M. M. Tentzeris, "*Design of microstrip bi-Yagi and microstrip quad-Yagi antenna arrays for WLAN and millimeter-wave applications,*" IEEE Antennas and Propagation Society International Symposium, pp. 989-992, July 2006.

Skills

- Programming Languages: MATLAB, Java, VHDL, Pascal.
- Design & Simulation Packages: MicroStripes, CST Microwave Studio, COMSOL, Advanced Design System, HFSS, SPICE, MultiSim.
- Graphic Design Tools: AutoCAD, Adobe Photoshop.
- Fluent Languages: Vietnamese, English.

Experience

- **Microsoft Research, Redmond, WA, USA**
Summer 2010 & Summer 2011 (6 months, <http://research.microsoft.com/en-us/labs/redmond/>)
Research Intern – RF Sensor research and developments in Hardware and Devices Group.
- **Laboratory for Analysis and Architecture of Systems (LAAS-CNRS), Toulouse, France-Fall**
Fall 2009 & Fall 2010 (8 months, <http://www.laas.fr/>)
PhD Fellowship/ Research Intern – RF Sensing group, MINC.
- **Georgia Institute of Technology, Atlanta, GA, USA** (Aug 2008 - present)
Research Assistant in ATHENA Research Group (<http://www.athena-gatech.org/>)
ECE Senior Design Project: LED Free Space Optics (1.5Gbps wireless communication)
- **T-Tech Inc., Norcross, GA, USA** (7 months, 2006-2007, <http://www.t-tech.com/>)
Coop-Test Engineer: Antenna Sample Design/Fabrication, CNC Motor Driver Design.

Activities

- Invited Speaker at *IEEE International Microwave Symposium Workshop* "Radio- Frequency Applications of Nanotechnology: Towards a New Generation of Extremely Integrated Devices and Systems," in Boston, June, 2009.
- Reviewer of *IEEE Antenna and Wireless Propagation Letters*.
- Reviewer of *Journal of Electromagnetic Waves and Applications*, Progress in Electromagnetic Research (PIER, PIER B,C,M, PIER Letters).
- Reviewer of the Tower- Undergraduate Research Journal at Georgia Tech.
- Member of Eta Kappa Nu, *the Honor Society for Electrical and Computer Engineering*.
- Member of IEEE, IEEE-MTT-S, and IEEE-WIE.
- Member of Engineering World Health – Georgia Tech Chapter.
- Participant of 2006 Georgia Tech Teambuzz community service project.