

Evan Everett

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Education

Ph.D. Candidate, Electrical Engineering, Rice University (expected 2015 graduation)
Advised by Dr. Ashutosh Sabharwal.

M.S. Electrical Engineering, Rice University (2012)
Advised by Dr. Ashutosh Sabharwal.

B.S. Physics with Highest Honor, Auburn University (2010).

B.S. Wireless Electrical Engineering with Highest Honor, Auburn University (2010).

Publications

Refereed Journal Articles

In Review

E. Everett and A. Sabharwal, "Spatial self-Interference isolation for in-band full-duplex wireless: a degrees-of-freedom analysis," submitted to *IEEE Transactions on Information Theory*, on October 2014.

Appeared/Accepted

E. Everett, A. Sahai, and A. Sabharwal "Passive self-interference suppression for full-duplex infrastructure nodes," *IEEE Transactions on Wireless Communications*, vol. 13, no. 2, pp. 680-694, February 2014.

E. Everett, B. T. Garrett, and S. Wentworth, "A reusable coplanar waveguide probe for in situ material characterization," *Microwave and Optical Technology Letters*, vol. 53, no. 11, pp. 2601-2604, November 2011.

Refereed Conference Articles

E. Everett and A. Sabharwal, "A signal-space analysis of spatial self-interference isolation for full-duplex wireless," *2014 International Symposium on Information Theory*, July 2014.

E. Everett, M. Duarte, C. Dick, and A. Sabharwal, "Empowering full-duplex wireless communication by exploiting directional diversity," in *Proc. 2011 Asilomar Conference on Signals, Systems and Computers*.

E. Everett, D. Dash, C. Dick, and A. Sabharwal, "Self-interference cancellation in multi-hop full-duplex networks via structured signaling," in *Proc. 49th Annual Allerton Conference on Communication, Control, and Computing*, September 2011.

Experience

Course Instructor and Research Assistant: Rice University ECE Dept. (Fall 2010–present)

Instructor for ELEC 433: Architectures for Wireless Communication, in which students learn the fundamentals of wireless communication implementation by building their own streaming transceiver using an FPGA-based prototyping platform.

Rice Center for Engineering Leadership (RCEL) Technical Presentations Coach.

Researcher in Center for Multimedia Communications (CMC) Lab, specializing in protocols and PHY designs for full-duplex wireless communication.

Undergraduate Researcher: Auburn University (2008–2009)

ECE Department, Auburn University. Advised by Dr. Stuart Wentworth.

Developed a novel coplanar waveguide probe for characterization of dielectric materials at microwave frequencies.

Cooperative Education (Co-op): NASA Johnson Space Center (2006–present)

EV8 Wireless Group (Summer 2014) Simulated beamforming algorithms for full-duplex wireless communication and mentored interns using machine learning to track items within spacecraft.

EV4 Antenna Group (Summer 2011)

Used computational electromagnetics (CEM) analysis to characterize the mutual coupling between integrated laptop antenna for full-duplex 802.11 communication.

EV4 Wireless Communications Group (Summer 2010)

Investigated the feasibility of using Rice University's Wireless Open-Access Research Platform (WARP) to prototype advanced NASA-specific wireless network solutions.

EV4 Antenna Group (Summer 2009)

Applied CEM techniques in designing a novel tunable microstrip patch antenna, fabricated a prototype, and performed RF measurements to verify simulation results.

EV4 RF and Optical Systems Group (Spring 2008)

Evaluated and selected RFID technologies for use on the International Space Station. Researched new techniques for constructing a passive-wireless accelerometer.

EG6 Autonomous Guidance, Navigation and Control Group (Summer 2007)

Developed a statistical model for the Orion spacecraft's radiometric navigation sensor, which was integrated into NASA's core software package for guidance, navigation and control simulations.

EV4 Antenna Group (Fall 2007).

Member of team developing novel phased-array system for long-range interrogation of passive wireless sensors. Developed software routines for parametric study of phased array beam-forming methods. Compiled radar link budget to predict interrogation range. Performed microwave measurements in JSC's anechoic chamber to evaluate link budget.

Awards

National Science Foundation (NSF) Graduate Research Fellowship (2012–present)
Best Ph.D. Presenter Award, Rice University Dept. of Electrical and Computer Engineering (2014)
Texas Instruments Distinguished Graduate Fellow (2010–present)
Honorable mention: National Science Foundation Graduate Research Fellowship (2010, 2011)
Outstanding Co-op Student of the Year: Alabama Association of Colleges and Employers (2010)
Comer Award for Excellence in Physical Science (2010)
Wireless Engineering Outstanding Student Award (2010)
Frank Vandegrift Co-op Award (2010)
American Society of Professional Engineers Outstanding Student Award (2010)
IEEE Microwave Theory and Techniques Undergraduate Research Fellowship (2009)
William L. Everitt Student Award of Excellence, International Engineering Consortium (2009)
Outstanding Physics Sophomore (2007) and Outstanding Physics Senior (2009) awards
NASA Cooperative Education Achievement Award (2006)
Tau Beta Pi, Eta Kappa Nu (electrical engineering), and Pi Sigma Pi (physics), honor societies

Last updated: November 16, 2014
<http://www.ece.rice.edu/~ee15>