
Jeffrey H. Reed, Ph.D.

Willis G. Worcester Professor of ECE
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Vitae

Section I: Experience & Education

Current Positions:

Professor, Bradley Department of Electrical and Computer Engineering,
June 2002- Present
Founding Director of Wireless, June 2014 - Present
CEO and Co-Founder, Power Fingerprinting, Inc. 2011-Present
CTO and Co-Founder, Cognitive Radio Technology, 2007-present
Willis G. Worcester Professor, Bradley Dept. of Electrical and Computer
Engineering, 2005-present

Professional Interest:

Research and teaching in signal processing and communication systems

Specific Research Interests

Software Radios
Smart Antennas
Interference Rejection
Wireless Networks
Cognitive Radio
Location Technology

Specific Teaching Interests

Software Radios
Cognitive Radio
Digital Signal Processing
Cellular and Personal Communications
DSP-based Communication System Design

Education:

Ph.D.

Electrical and Computer Engineering, December 1987, University of California, Davis
Awarded American Electronics Fellowship for Faculty Development
Major: Statistical Signal Processing; Minor: Control Systems and Statistics
Dissertation: *Interference Rejection Using Time-Dependent Adaptive Filters*
Attended part-time at University of Santa Clara, September 1980 through June 1983

M.S.

Electrical and Computer Engineering, June 1980, University of California, Davis
M.S. Project Topic: An EEG Data Acquisition and Analysis System

B.S.

Electrical and Computer Engineering, March 1979, University of California, Davis

Employment:

Professor, Virginia Tech, April 2001-present
Director of Wireless at Virginia Tech (Wireless@VT), 2006-2014
Interim Director, The Ted and Karyn Hume Center for National Security and Technology, January 2010 – May 2011
Director, MPRG 2000-2002
Associate Professor, Virginia Tech, 1997-2001
Co-Founder and Advisory Board Chairman, Federated Wireless, 2012 - present
President and co-founder, Power Fingerprinting, 2011 - present
CTO and co-founder, Cognitive Radio Technologies, 2007-present
Co-founder, Dot Mobile, Inc., March 2000-2001
Consultant, Reed Engineering (Self-Employed), 1987-present
Assistant Professor, Virginia Tech, 1992-1997
Research Engineer, University of California, Davis, 1992
Lecturer, University of California, Davis, 1988-1992
Associate Instructor, University of California, Davis, 1985-1987
Teaching Assistant, University of California, Davis, 1984-1985
Member of Technical Staff, Signal Science, Inc., Santa Clara, CA and Hanover, MD, 1980-1985

Professional Affiliations:

Member of **Tau Beta Pi Honor Society**
Member of **Phi Kappa Phi Honor Society**
Member of AFCEA
Fellow of the IEEE

Professional Awards:

Wireless Innovations Forum International Achievement Award 2013
Honorary lifetime membership in the Wireless Innovation Forum, 2012
IEEE Vehicular Technology Society Distinguished Lecturer 2011-2014

Named Willis G. Worcester Professor of ECE, summer 2005, Fall 2010
Industry Achievement Award, SDR Forum 2004
Institute of Electrical and Electronics Engineers Fellow, Dec. 2004
Virginia Tech College of Engineering Outstanding Researcher Award, 2001

Section II: Funded Research (Principal Investigator or Co-Principal Investigator)

Cognitive Medical Wireless Testbed System (COMWITS), ARO, 07/01/2014 – 12/31/2014, \$150,713.00

LTE – Enhanced Cognitive Radio Testbed, ARO, 07/01/2014 – 06/30/2015, \$379,094.00

Next Generation Cellular Networks, Center for Innovative Technology, \$100,000
05/10/2013 - 08/09/2013

Collaborative Proposal: Broadband Wireless Access and Applications Center (BWAC),
National Science Foundation, \$3,000,000, 03/01/2013-02/28/2014

Task Orders under HAWKSNEST Vehicle, Ventura, 1/1/13 - 6/30/13, \$204,975.00

SDR Technology Development Support – Option Year 2, Maryland Procurement Office,
05/01/2014 – 04/30/2015, \$375,001.00

Dynamic-Spectrum-Access Enabled One-to-Any Radio, i6 Virginia Innovation
01/01/2014 – 12/31/2014, \$55,000.00

Robust Satellite Communications under Hostile Interference, Air Force Research
laboratory, 08/15/2014 – 08/14/2015, \$78,441.00

Integration of Components and Waveforms into REDHAWK, Ventura Solutions,
08/16/2013 – 06/30/2014, \$49,373.00

An Integrated System for Wildlife Sensing, Army Research Laboratory, 07/15/2013 –
02/14/2014, \$49,310.00

Radar Communications Compatibility Experiment, NSWC Dahlgren, 05/15/2013 –
08/09/2013, \$119,420.00

Wireless Communication Over 3.5 GHz using Multi-fuctional Mobile Station, CAER,
01/06/2014 – 01/04/2015, \$84,998.00

**A New Dimension in Radio Spectrum Sharing through Policy-based Network
Cooperation**, NSF, 09/15/2013 – 09/14/2017, \$1,200,000.00

LTE Communications Over 3.5 GHz Band for Broadband Public Safety Applications,
CNS, \$100,000, 07/01/2013 - 06/30/2014

ICCAE, Faculty Development Supplement to 450181, DIA, \$5,000, 9/26/12 – 9/26/13

Radar-Communications Compatibility Experiments, NSWC, Dalghren, 4/15/13 – 8/9/13, \$124,985

ICTAS Seed Hospital Room of the Future, ICTAS, \$40,000, 7/17/2012 – 06/30/2013

ICTAS Testbed efforts, ICTAS, \$75,000, 7/17/2012 – 06/30/2013

Robust Satellite Communications under Hostile Interference, AFRL, \$76,067, 3/18/13 – 3/25/14

Ensuring Operational Privacy of Primary Users in Geo location Database-Driven Sharing, Motorola Solutions, \$374,948, 12/1/12 –

HAWKSNest Enterprise Software Radio, Ventura, \$129,000, 1/1/2013 – 6/30/2013

Mobile Cognitive Radio, ICTAS, \$98,291, 07/01/2012 – 06/30/2013, Jeffrey Reed

Next Generation Cellular Networks, Center for Innovative Technology, \$100,000, 05/10/2013 - 08/09/2013

Sharing and Shaping 4G Cellular Resources, Allied Minds, \$369,152, 08/10/12 - 05/09/2013

Software Defined Radio Waveform and Device Development and Component Deployment Using OSSIE, DOD/LTS, \$975,639, 07/19/2007-07/31/2013

Android Security, Army Research Office (ARO), \$64,884, 08/01/2013 – 07/31/2013

Collaborative Proposal: Broadband Wireless Access and Applications Center (BWAC), National Science Foundation, \$3,000,000, 03/01/2013-02/28/2014

Intelligence Community Center of Academic Excellence (renewal), DIA, \$1,000,000, 9/23/13 – 9/22/14

Paving the Way to Dynamic Spectrum Sharing: Understanding Spectrum Regulatory and enforcement Mechanics, NSF, \$466,485

Advanced Wireless Systems Technologies, NRO, \$8,128,864, 8/15/12-1/14/2014

Intelligence Community Center of Academic Excellence, DIA, \$1,000,000, 9/23/12 to 9/22/14

Sharing and Shaping of 4G Cellular Resources, AMFI, \$369,152, 8/10/12 – 5/9/13

Android Security, ARO, \$64,884, 6/1/12 – 5/31/13

SDR Shield: A Hardware-based Security Solution for Software Defined Radio, NSF, \$700,000, 9/1/12 – 8/29/18

Outdoor Cognitive Radio Network Test Bed, DoD, 6/15/12 – 6/14/13

Information Assurance of LTE-Advanced, L-3, \$30,000, 6/15/12 – 6/14/14

Enhanced Security Monitoring and Intrusion Detection Using Power Fingerprinting and SDR and CR Wireless Systems, Power Fingerprinting Inc., \$50,236.00
7/1/2012 – 12/31/2012

Rural Virginia Testbed Planning, CAER, \$169,999.00, 1/1/2012 – 9/30/2012

Wireless Assessment of the Gigapark Sites in the Mid Atlantic Broadband Footprint, Mid-Atlantic Broadband. \$54,419.00, 7/1/2011 – 9/1/2011

Cognitive Jammer Detection and Classification. Office of Naval Research (ONR), \$100,000.00, 10/1/2011 – 9/30/2013

The Android Tactical Application Analysis & Knowledge Cloud, AROSR/ARO

Mobile Cognitive Radio Testbed, ICTAS, \$98,291.00, 7/1/2010 – 6/30/2011

Updated to OSSIE Core Framework to Enhance Compatibility with Open CPI, Mercury Federal Systems, \$39,998, 7/1/2011 – 12/31/2011

Mobile Cognitive Radio Nodes Testbed, ARO (DURIP II), 5/13/2010 – 5/12/2011, \$213,566

Next Generation Secure, Scalable Communication Network for Smart Grid, Oak Ridge National Laboratory, 12/15/2010 – 09/30/2012 \$628,671.00

SDR Technology Development Support, Maryland Procurement Office, 9/30/10 – 9/29/2010
\$1,562.300 (expected duration 5 years at \$5M)

Mobile Cognitive Radio Testbed, ICTAS, 7/1/10 – 6/30/11 \$213,566 (co-PI)

Experimental Development Capability for Software Defined Radio with Agile Hardware, ONR, 1/27/2010 – 1/26/2011 \$277,718 (co-PI)

Collaborative Research: Enhancing Access to the Radio Spectrum (EARS) Workshop, NSF 4/15/2010 – 03/31/2011 \$21,860.00 (co-PI)

Recommendations for Transitioning Silvus MNM FPGA Core IP, DARPA (Silvus Technologies) 2/18/2010 – 2/17/2011, \$39,970.00 (co-PI)

NSWC-TO13-Wireless Distributed Computing: Concept to Reality, Naval Secure Warfare (DARPA) Center 8/16/10 – 8/15/2011 - \$498.798.0

Investigating the Relationship of OSSIE to Higher Layers, NSF 8/1/2009 – 2/28/10
\$76,040

VT-Cornet: Virginia Tech Cognitive Radio Network, ICTAS, 7/1/08 – 6/30/09 \$142,580

Cryptographic API and Subsystem Simulator, SCA Technica, 1/1/09 – 9/26/09 \$39,000

Cognitive Radio Network Testbed Instrumentation, Office of Naval Research, 4/15/09 – 4/14/10 \$347,979

VT-Cognet: Virginia Tech Cognitive Radio Network Testbed Phase 2, ICTAS 1/12/09 – 1/11/10 \$149,959 (co-PI)

CT-ISG: Assuring Security in Spectrum Agile Radio Networks, NSF, 01/01/07 - 12/31/10 \$499,997 (co-PI).

Improved Distribution and Error Recovery of the OSSIE Core Framework, SAIC 3/01/2009 – 9/30/2009 \$75,000

IC CAE: Emerging Technologies IC CAE, Howard University 9/23/2009 – 9/22/2011 \$2.5M

REU Supplement to award #0520418 Nets: Oriwub:An Open Systems Approach for Rapid Proto-typing Waveforms for Software Defined Radio, NSF \$41,800

Nets Prowin: An Open Systems Approach for Rapid Prototyping Waveforms for Software Defined Radio, National Science Foundation, 8/1/08 – 7/31/09 \$12,000 (asking for additional REU funding)

Enhancements to OSSIE: (Open Source SCA Implementation: Embedded), Science Applications International Corporation, 4/1/07 – 9/07 \$75,000

Collaborative Research: CT-T TRIESTE: A Trusted Radio Infrastructure For Enforcing Spectrum Etiquettes, NSF, 10/01/07 – 9/30/10, \$150,000 (Reed Co-PI)

Development Design of a Cognitive Engine and Anyalysis of WRAN Cognitive Radio Algorithms, ETRI, 7/01/07 – 12/31/07 \$119,999

An Integrated Tool for SCA Waveform Development, Testing, and Debugging and A Tool for Automated Estimation of DSP Resource Statistics for Waveform Components, US-Army-CERDEC Office, 6/12/07 – 6/11/08, \$326,125

Software Defined Radio Waveform and Device Development and Component Deployment Using OSSIE, DOD, 7/19/07 – 7/18/10, \$975,639 (\$184,744 awarded to this point)

Reasoning and Learning in Adapative Wireless Networks, BBN Technologies, 10/1/07 – 12/31/10, \$913,196 (co-PI)

US/Ireland International Workshop on Next Generation Open Architectures for Software-Defined Radio, NSF, 9/15/07 – 8/31/08, \$35,963

VT-CogNet: Virginia Tech Cognitive Radio Network, ICTAS, 1/1/08 – 6/30/09,\$160,170 (Reed, Bose PIs)

Trade Study Of Implementation of SDR: Fundamental Limitations and Future Prospects (DARPA SEED), US Army Aviation & Missile Command, 9/11/07 – 6/30/08 (Reed PI) \$115,364

Distributed Computing for Collaborative Software Radio, Office of Naval Research, 02/05/07 - 02/04/10, \$533,722

A Panel of Commercial GSM Experts For Supporting JIEDDO Operations, JIEDDO, 12/18/06 - 2/28/07 \$38,275

Cognitive Radio Test-bed, Virginia Space Grant Consortium, 08/16/06 - 08/15/07 \$5,000

Emerging Wireless Technologies (EWT) Technology Assessment, Rosettex, 07/03/06 - 12/31/07 \$91,000

Development of a Cognitive Engine and Analysis of WRAN Cognitive Radio Algorithms, ETRI, 06/16/06 - 12/31/06 \$175,554.

Wireless@Virginia Tech Group Start-up, Institute for Critical Technology and Applied Science – ICTAS, 01/01/06 - 06/30/07 \$500,000.

A Low-Cost All-Band/All-Mode Radio for Public Safety, National Department of Justice (Dept. of Justice), 10/01/05 - 09/30/08 \$399,816 (Reed Co-PI)

Applying Artificial Intelligence Techniques to the Development of a Cognitive Radio Engine: Assessment, Evaluation, and Implementation, Army Research Office, 10/01/05 - 06/30/06 \$49,995.

Analysis of WRAN Algorithms, ETRI, 10/01/05 - 12/31/05 \$86,275

NeTS PROWIN: An Open System Approach for Rapid Prototyping Waveforms for Software Defined Radios, 08/15/05 - 08/14/09 \$999,995 (Reed Co-PI)

Cognitive Radios, Virginia Space Grant Consortium, 08/10/05 - 08/09/06 \$5000

A Software Defined Ultra Wideband Communication System Testbed, Virginia Space Grant Consortium, 08/10/05 - 08/09/06 \$5,000

Advanced Wireless Integrated Network: AWINN, Office of Naval Research, 12/20/04 - 06/24/06 \$484,200 (Reed portion)

Software Defined Radios: Evolution and Application Areas, Booz Allen Hamilton, 1/1/05 - 3/15/05 \$74,497

Ossie and Harriet, SAIC, 08/16/04 - 12/31/05 \$300,519

CDMA 2000 System Modeling and Simulation Program, Magnolia Broadband, Inc., 12/15/03 - 12/14/04 \$84,500

Policy-based Resource Management in a Vehicular Ad-Hoc Network for First Responders, Naval Postgraduate School, 09/24/03 - 09/30/04 \$25,431

System Level Design Approach and Methodologies For Software Defined Radios, National Imagery and Mapping Agency, 7/25/03 - 7/24/06 \$189,282

Smart Antennas Research At The MPRG, Army Research Office, 06/01/03-12/31/04 \$37,500

Proposal for GDDS Cluster X-SCA-Lite Architecture, General Dynamics, 05/01/03-10/31/03 \$85,691

Game Theoretic Analysis Of Radio Resource Management For Ad-Hoc Networks, Office of Naval Research, 04/01/03-03/31/06 \$589,411

Game Theory in Radio Resource Management, Motorola University Partnership in Research,
09/01/02 - 05/31/04 \$60,000

Software Radios and Smart Antennas: Challenges for Creating Seamless Networks,
Samsung Electronics, 04/08/03 - 05/15/04 \$520,785

**UWB Propagation Measurements, Modeling, and Communication System
Enhancements**, DARPA, 08/16/01 - 12/31/03 \$688,620

**Tactical Communications Architecture and Implementation Plan for the U.S. Customs
Service**, Naval Surface Warfare Center, Dahlgren, 8/16/01 - 8/15/02 \$402,000

ACN Independent Innovative Research Component, Raytheon Systems, 12/1/01 -
11/30/02 \$11,250

Foundation Wireless Network for Medical Applications, Carilion Biomedical Institute,
8/6/01 - 8/10/02 \$75,000

Interference, Propagation, and Antenna Placement Issues for XM Radio, GM, 3/26/01 -
9/25/02 \$583,527

AOL Fellowship in Wireless Home Networking Technologies, AOL, 01/01/01 - 05/15/03
\$84,583

Reconfigurable Apertures and Space-Time Processing, Raytheon Systems, 05/00 - 09/02
\$841,350

Advanced Wireless Technology for Aerospace Communications, Virginia Space Grant
Consortium, 08/00 - 05/03 \$15,000

Research and Development for IMT-2000, LG Electronics, 05/15/00 - 09/31/01 \$350,000

Motorola University Partnership in Research: Overloaded Array Processing, Motorola,
09/01/00 - 08/31/02 \$84,944

Multiuser Detection for Overloaded Antenna Arrays, Raytheon, 05/00 - 05/02 \$1,126,194

An Investigation of Base Station Diversity For Cellular Applications - Phase II,
Metawave, 02/29/00 - 02/28/01 \$104,000

Broadband Channel-Adaptive Radio Modem for NGI Network Extension and Access,
Hughes Research Laboratory, 10/01/99 - 11/30/01 \$81,412

**Research Into Signal Recovery Algorithms in Support of Spectral Spatial Interference
Cancellation System (SSICS) – Phase II Research Effort**, Raytheon Company,
02/01/00 - 05/15/01 \$149,756

Navy Collaborative Integrated Information Technology Initiative (NAVCIITI), Office of
Naval Research, 04/00 - 06/04 \$9,651,087 (Reed portion \$534,089)

- Research into Spatial Signal Recovery Algorithms in Support of Spectral Spatial Interference Cancellation System - Phase I (SSICS)**, Raytheon Company, 080/2/99 - 01/10/00 \$97,857
- Low Power and Robust Communications Using Hand-Held Smart Antennas for Receiving and Transmitting**, Texas Instruments, 07/01/98 - 06/30/00 \$331,993
- An Investigation of Base Station Diversity for Cellular Applications**, Metawave Communications, 03/01/99 - 02/28/01 \$179,706
- International Wireless Communication Research Program**, Virginia Tech Research and Graduate Studies' SEED Program, 01/01/99 to 06/30/00 \$7,500
- Navy Collaborative Integrated Information Technology Initiative (NAVCIITI)**, Office of Naval Research, 11/14/98 - 09/30/00 \$2,700,000.
- Enhancing the Capacity of IMT-2000 Through Turbo Coding and Smart Antennas**, LGIC, 10/01/98 - 09/30/99 \$122,904
- Low Power and Robust Communications Using Hand-Held Smart Antennas for Receiving and Transmitting**, Texas Instruments, 07/01/98 - 06/30/99 \$132,000
- Techniques for Evaluating Location Technologies**, Comcast, 05/01/98 - 12/31/98 \$112,154
- Development of Tools for CDMA Cellular Network Planning**, Innovative Global Solutions (IGS), 04/01/98 - 01/31/99 \$42,889
- Configurable and Robust Wireless Communications Nodes**, DARPA, 07/01/97 - 12/30/00 \$2,015,431
- Support of Telelink System Test**, Global-Net, Inc., 09/25/96 - 09/24/97 \$50,000
- Sprint RFI and Evaluation**, Sprint Spectrum L. P., 09/26/96 - 12/31/96 \$31,158
- Rural MayDay/800 Call-in System Feasibility, I-95 Corridor** Coalition/ Virginia Department of Transportation, 02/01/96 - 01/31/97 \$299,176 (MPRG share \$157,988)
- A Study of Reconfigurable Receivers for Cellular and PCS**, Texas Instruments, 08/25/95 - 08/25/96 \$35,000
- CDMA/FM Evaluation Effort**, Comdial Corporation/Sigtek, 08/28/95 - 12/31/95 \$25,000 (plus \$7,500 CWT match)
- Measured DECT System Performance in Actual Radio Channels**, National Semiconductor, 10/01/94 - 2/15/96 \$35,024
- Investigation of BMP Impacts on Nonpoint Source Pollution Using System Analysis Procedures**, Virginia Water Resource Center/U.S. Dept. of Interior, 04/01/95 - 04/30/96 \$9,963
- Development and Implementation Of Interference Rejection Techniques for Cellular Communications**, SAIC, Center for Wireless Telecommunications (CWT), \$50,000 (SAIC, 03/22/95 to 12/31/95) \$25,000 (CWT, 07/01/95 to 06/31/96)

- Expanded Testing of a High Capacity Adaptive Wireless Receiver**, ARPA/AASERT, 08/01/95 - 07/31/98 \$125,522
- Co-Channel Interference Rejection for FM Mobile Phone Systems**, Motorola, 01/16/95 - 09/15/99, \$33,000
- Curriculum Innovation for Simulation and Design of Wireless Communications Systems**, National Science Foundation, 08/16/95 - 07/31/98 \$289,291
- A High Capacity Wireless Receiver Implemented with A Reconfigurable Computer Architecture**, ARPA/WAMIS, 09/94 - 08/30/97, \$1,727,230 (\$533,250 for the first year, \$586,750 second year)
- Development of a Low Power High Data Rate Spread-Spectrum Modem**, Grayson Electronics, Virginia's Center for Innovative Technology (CIT), Center for Wireless Telecommunications (CWT), \$29,833 (Grayson, 03/01/94 - 11/30/94), \$13,204 (CIT, 03/01/94 - 10/31/94) and \$16,000 (CWT matching funds, 04/01/94 - 06/30/95)
- Rejection of Interference in AMPS Cellular Communication**, ARGO Systems, VA's Center for Innovative Technology (CIT), \$25,000 (ARGO Systems, 12/10/93 - 05/10/94) and \$12,500 (CIT, 04/01/94 - 07/31/94)
- Capacity and Interference Resistance of Spread-Spectrum Automatic Vehicle Monitoring Systems in the 902-928 MHz Band**, Southwestern Bell Mobile Systems, 10/01/93 - 08/15/94 \$70,007
- University Road Connection - A Smart Highway**, Virginia Dept. of Transportation, 07/01/94 - 11/01/94 \$19,523.79
- Development of a Spread Spectrum Transceiver for the DECT System**, National Semiconductor, 07/01/94 - 06/30/95 \$30,000
- Investigation of a Dynamic Range Enhancer for an Electro-optic Interface**, Southwestern Bell Technology Resources, Inc., 08/01/93 - 06/01/94 \$45,000
- IVHS Research Center of Excellence**, Federal Highway Administration (FHWA), 1993 - 1998, \$1 million/year for 5 years (MPRG total approximately \$390,000 over performance period, \$330,000 received in 93-94, 94-95, 95-96, 96-97 contract years)
- Center for Wireless Communications**, Center for Innovative Technology, 09/01/93 - 08/31/98, \$300,000 for first year. (Anticipated total funding approximately \$1,490,835 plus an additional \$357,551 of cost sharing by Virginia Tech)
- The Performance and Feasibility of Time-Dependent and Non-Linear Adaptive Filters for Rejecting High-Power Co-Located Co-Channel Interference**, US Navy via Systems Research Center, 05/15/93 - 09/01/93, Amount: 1/2 summer session support (value approximately \$3,750)
- Evaluation of an NTP-Based Protocol for Paging and Advanced Data Services**, MobileComm, 07/01/93 - 09/30/93 \$39,986

Grants & Gifts:

Ted and Karyn Hume center for National Security and Technology Endowment Fund

January 2010, \$5,000,000 (Note that most of this money goes for student fellowships, with \$200k provided for center support.)

Total Amount - \$5,209,010.00

Intel – Jan. 2010, gift for unrestricted research \$50,000.00

Tektronix, reconditioned real time spectrum analyzer and two portable analyzers, ~ \$130,000

Tektronix - Dec. 2009, reconditioned Arbitrary Function Generator, 100 Mhz, 2 Channel
\$5,110.00

Wireless@VT Industrial Affiliates Membership 2006-2009:

Affiliate Funding for the year 2009 – 2010 for Dr. Jeffrey H. Reed is \$66,960.

Affiliate Funding for the year 2008 - 2009 for Dr. Jeffrey H. Reed is \$40,534

Intel Coporation:: 2009 to support the research in "Cognitive Radio for Minimizing Power Consumption" \$44,000

Tektronix, 12/2005, cash gift \$20,000

Texas Instruments, 08/2005, cash gift \$27,519

Tektronix, 07/2005, cash gift \$20,000

Texas Instruments. 12/2004, cash gift \$99,000

Tektronix, spring 2004, cash gift \$20,000

CISCO Systems, 08/2003 and 02/2005, cash gift \$176,000

Mercury Computer Systems, Inc., 2003, cash gift \$50,000

Analog Devices, 2001-2002, cash gift \$37,500

HRL, Smart Antenna Research, 2000, cash gift \$40,000

Rockwell, Flexible Communications Using Reconfigurable Computing, 1998, \$25,000
cash gift

Investigation of CDMA, donation from ITT, 1996, cash gift \$100,000

MPRG Industrial Affiliates Membership 1993-2006: Grant total split between the five MPRG faculty (total paid \$4,866,500 and an additional \$110,000 committed to date). Services provided to sponsors include advanced copies of thesis and dissertations, informal consulting, and special opportunities to employ students.

Intel, 10/2007, \$40,000, Support research in "Cognitive Radio for Minimizing Power Consumption," 5/2008, \$44,000

Texas Instruments, Evaluation Module Kit, 01/2007, \$995

Tektronix, Arbitrary Waveform Generator, 02/2007, \$138,000.

Xilinx, Inc., Xilinx System Generator, ChipScope Pro, Xilinx Real-PCI interface, AccelDSP Synthesis Tool with AccelWare DSP IP Toolkits, VLYNQ Interface LogiCORE, ISE Foundation, University Option Embedded Development Kit, 01/2007, \$39,615

Tektronix, equipment, \$114,000

Texas Instruments, 06/2006, \$49,500

Mercury Systems, AdapDEV 1280 Chassis with 900 MHz processor, 08/2003

Spectrum Signal Processing, Inc., Hardware necessary to implement a true software defined radio, 08/2002, \$62,329

Grayson Wireless, Cellular test and measurement system, 08/2002, \$66,312

Signia-IDT (formerly BAE), RF Front-end valve, 2002, ~\$6,000

Altera, MAX + Plus II Fixed Node Subscription (FPGA board), \$2,000

Texas Instruments, Evaluation Module incl. Code Composer Studio, 06/2001, \$19,960

Texas Instruments, ADC-Converter, 03/2001, \$99

Analog Devices, Evaluation Boards (5), Visual DSP software (2), In-Circuit Emulators (2), \$3,790

Wireless Valley Communications, 2 copies SitePlanner w/LanFielder \$49,980, 1 copy SiteSpy on SMT \$995, 2005, \$50,975

Analog Devices, receiver, processor, and receiver chip set, \$645

Texas Instruments, boards, 2001, \$2,495

HRL, 2000, Diversity Antenna, \$200

Altera, development package, 2000, \$995

Altera, (2) MAX+ PLUS II Fixed Node Subscription for PC, (1) design lab package, (1) Micro-Chip; \$4,765

Motorola, 56311EVM computer board with DSP and 56311 on it, software, documentation, tutorial, and input/output capabilities, 12/2000, \$2000

Texas Instruments, Evaluation software and manuals, 1998, \$2,500

Texas Instruments, Evaluation Software, 1997, \$1,000

Altera, Development Tools for Programming Configurable Logic Devices, \$350

Texas Instruments, DSP Development Systems and Software, 1997, \$11,475

Texas Instruments, DSP Hardware and Software, 1997, \$27,500

Analog Devices, DSP Development Boards, 1996, \$3,200

Altera, Software Materials, 1996, \$5,000

SIGTEK, Spread Spectrum Receivers, 1995, \$10,000

Section III. Teaching & Advising

Classes Taught:

Graduate Courses

Cellular and Personal Communications (ECE6644)

Software Radios: A Modern Approach to Radio Engineering (ECE5674)

Digital Signal Processing (ECE5624)

Cellular (ECE 5664)

Undergraduate Courses

Implementation of Communication Systems (ECE4654)

Signal Processing (ECE4624)

Communication Systems (ECE3604)

Courses Developed:

Major Revision of ECE course 5664 Cellular Radio and Personal Communications to focus on systems level description and design considerations of cellular standards this will take two more years to complete and result in a textbook.

Implementation of Communication Systems (ECE 4654)

Developed Class in Software Radio (ECE 5664)

Advising: Completed Ph.D. Dissertations:

Shravan Garlapati, "Enabling Communication and Networking Technologies for Smart Grid," February 2014

Dinesh Datla, "Wireless Distributed Computing in Cloud Computing Networks," PhD 2013

Yash Vasavada, "An Iterative Confidence Passing Approach for Parameter Estimation and Its Applications to MIMO Systems," May, 2012

Hazem Shatila, "Adaptive Radio Resource Management in Cognitive Radio Communications Using Fuzzy Logic," April 2012

Ashwin Amanna, "Statistical Experimental Design Framework for Cognitive Radio," March 19, 2012

Carlos Aguayo Gonzales, "Power Fingerprinting for Integrity Assessment of Embedded Systems," December 5, 2011

Xueato Chen, "Resource Allocation for Wireless Distributed Computing Networks," (Co-Advised with Dr. Tamal Bose) completed May 2012

An He, "Power Consumption Optimization – A Cognitive Radio Approach," February 2011

Joseph Gaeddert, "Facilitating Wireless Communications through Intelligent Resource Management on Software-Defined Radios in Dynamic Spectrum Environments," January 2011

Lizdabel Moarles Tirando, "An Approach to Using Cognitive in Wireless Networks," December 2009

Kyou Woong Kim, "Exploiting cyclostationarity for radio environmental awareness in cognitive radios," May 2008

Youping Zhao, "Enabling cognitive radios through radio environment maps," May 2007

Rekha Menon, "Interference avoidance based underlay techniques for dynamic spectrum sharing," April 2007 (co-advised with Dr. Michael Buehrer)

Jong-Han Kim, "On the impact of MIMO implementations on cellular networks: An analytical approach from a system perspective," March 2007

Ramesh Chembil Palat, "Performance analysis of cooperative communications for wireless networks," December 2006

Jody Neel, "Analysis and design of cognitive radio networks and distributed radio resource management algorithms," September 2006

Chris Anderson, "A software defined ultra wideband transceiver testbed for communications, ranging, or imaging." September 2006

James Hicks, "Novel approaches to overloaded array processing," August 2003

Raqibul Mostafa, "Feasibility of smart antennas for the small wireless terminals," April 2003

William Newhall, "Radio channel measurements and modeling for smart antenna array systems using a software radio receiver," April 2003

Pablo Max Robert, "Reduction in coexistent WLAN interference through statistical traffic management," April 2003

Tom Biedka, "Analysis and development of blind adaptive beamforming algorithms," August 2001

Srikathyayani Srikanteswara, "Design and implementation of a soft radio architecture for reconfigurable platforms," July 2001

Rich Ertel, "Antenna array systems: Propagation and performance," July 1999

Nitin Mangalvedhe, "Development and analysis of adaptive interference rejection techniques for direct sequence code division multiple access systems," July 1999

Nishith Tripathi, "Generic handoff algorithms using fuzzy logic and neural networks," November 1997

Paul Petrus, "Novel adaptive array algorithms and their impact on cellular system capacity," April 1997

Jeff Laster, "Robust GMSK demodulation using demodulator diversity and BER estimation," January 1997

Rong He, "AMPS co-channel interference rejection techniques and their impact on system capacity, August 1996

Completed M.S. Theses:

Scott Meuleners, "Design and Implementation of a Distributed TDOA-Based Geolocation System using OSSIE and Low Cost USRP Boards," May 2012

Thomas Cooper, "Integration of Open-Source Networks," May, 2012

Shawn Hymel, "Massively Parallel Hidden Markov Models for Wireless Applications," December 5, 2011

Peter Sahmel, "Eigenspace Approach to Specific Emitter Identification of Orthogonal Frequency Division Multiplexing Signals," Nov. 2011

Hermie Mendoza, "Distributed Localization for Wireless Distributed Networks in Indoor Environments," June, 28, 2011

Soumava Bera, "Design and Implementation of a MAC Protocol for Wireless Distributed Computing," June 11

Hermie Mendoza, "Distributed Localization for Wireless Distributed Networks in Indoor Environments," May 2011

Matthew Price, "Automatic Modulation Classification Using Grey Relational Analysis," April 2011

Ben Hilburn, "Component-Based Design and Service-Oriented Architectures in Software-Defined Radio," April 2011

Sabares S. Moola, "Rapid Prototyping of Software Defined Radios using Model Based Design for FPGAs," on July 22, 2010

Nikhil Challa, " Approaches for Optimizing Software Defined Radio Performance," on January 31, 2011

Ishtiaq Rouf, "Statistical Analysis of Wireless Communication Systems Using Hidden Markov Models," July 2009

Matthew Carrick, "Logical representation of FPGA's & FPGA circuits within the SCA," July 2009

Patrick Farrell, "Digital hardware designing decisions & trade-offs for software radio systems," May 2009

Philip Balister, "A software defined radio implemented using the OSSIE core framework deployed on a TI OMAP processor." December 2008

Jacob DePriest, "A practical approach to rapid prototyping of SCA waveforms," April 2006

Srinivasan Vasudevan, "A simulation for analyzing the throughput of IEEE 802.11b wireless LAN systems," January 2005

Brian Donlan, "Ultra-wideband narrowband interference cancellation and channel modeling for communications," January 2005

Anil Hebbbar, "Empirical approach for rate selection in MIMO OFDM," December 2004

Seshagiri Krishnamoorthy, "Interference measurements and throughput analysis for 2.4 GHz wireless devices in hospital environments," April 2003

Yasir Ahmed, "A model-based approach to demodulation of co-channel MSK signals," December 2002

Ramesh Chembil Palat, "VT-Star – Design and implementation of a test bed for differential space-time block coding and MIMO channel measurements," October 2002

Jody Neel, "Simulation of an implementation and evaluation of the layered radio architecture," December 2002

Bing-Leung (Patrick) Cheung, "Simulation of adaptive algorithms for OFDM and adaptive vector OFDM systems," August 2002

Shakheela H. Marikar, "Resource management in 3G systems employing smart antennas, January 2002

M. Soni, "Computing engine for reconfigurable software radio," Oct. 2001

Christian Rieser, "Channel sounder for LMDS," May 2001 (co-advisor)

James Hicks, "Overloaded array processing with spatially reduced search joint detection," May 2000

Zhong Hu, "Evaluation of joint AOA and DOA estimation algorithms using the antenna array systems," May 1999

Kim Phillips, "Probability density function estimation for minimum bit error rate equalization," May 1999

Pablo (Max) Robert, "Simulation tool and metric for evaluating wireless digital video systems," May 1999

Steven F. Swanchara, "An FPGA-based multiuser receiver employing parallel interference cancellation," July 1998

Don Breslin, "Adaptive antenna arrays applied to position location," August 1997

Steve Nicoloso, "Investigation of carrier recovery techniques for PSK modulated signals in CDMA and multipath mobile environments," May 1997

Brian Fox, "Analysis and dynamic range enhancement of the analog-to-digital interface in multimode radio receivers," February 1997

Nena Zecevic, "Interference rejection techniques for the mobile unit direct-sequence CDMA receiver, August 1996

Kevin Saldanha, "Performance evaluation of DECT in different radio environments," August 1996

Milap Majmundar, "Adaptive single-user receivers for direct sequence CDMA systems," February 1996

Yash Vasavada, "Performance evaluation of a frequency modulated spread spectrum system," February 1996

Scott Elson, "Simulation and performance analysis of CDPD," January 1996

Matthew Welborn, "Co-channel interference rejection using model-based demodulator," January 1996

Francis Dominique, "Design and development of a frequency hopper based on the detection system for the 902-928 MHz ISM band," December 1995

Nitin Mangalvedhe, "An Eigenstructure technique for direct sequence spread spectrum synchronization," April 1995

Paul Petrus, "Blind adaptive arrays for mobile communications," December 1994

Sihano (Raymond) Zheng, "Channel modeling and interference rejection for CDMA automatic vehicle monitoring systems," November 1994

Fu-Sheng (Frank) Cheng, "A new approach to dynamic range enhancement," September 1994

Volker Aue, "Optimum linear single user detection in direct-sequence spread-spectrum multiple access systems," March 1994

Current Ph. D Students:

1. Karim Said - PhD expected completion date Dec 2016
2. Matthew Carrick – Ph.D. expected completion date December 2016
3. Thaddeus Czauski – Ph.D. expected completion date May 2017
4. Stephen Dudley – Ph.D. expected completion date May 2015
5. Eyosias Imana – Ph.D. expected completion date December 2016
6. Abid Ullah – Ph.D. expected completion date August, 2015
7. Matthew Vondall – Ph. D (part-time student co-advised with Amir Zaghoul) expected completion date May 2016
8. Miao Yao – Ph.D. (co-advised with Cameron Patterson) expected completion date December 2016
9. Aditya Padaki – Ph.D. completion expected December 2015
10. Marc Lichtman – Ph.D. completion expected December 2015
11. Xiaofu Ma – Ph.D. completion expected May 2016
12. William Headly – Ph.D. expected completion date December 2014
13. Munawwar M Sohul – Ph.D. expected completion date May 2016

Current M.S. Students:

- Sean Ha – M.S. expected completion date May 2015
 Michael Benonis – M.S. expected completion date December 2012

Section IV. Publications List

Books Authored or Co-Authored:

1. J. H. Reed, ed., An Introduction to Ultrawideband Communications Systems, Prentice Hall, March 2005, ISBN: 0-13-148103-7.
2. J. H. Reed, Software Radio: A Modern Approach to Radio Design, Prentice Hall, May 2002, ISBN: 0-13-081158-0.
3. N. D. Tripathi, J. H. Reed, and H. F. VanLandingham, Radio Resource Management in Cellular Systems, Kluwer Academic Publishers, Spring 2001.

Books & Proceedings Edited:

1. W. H. Tranter, B. D. Woerner, J. H. Reed, T. S. Rappaport, and P. M. Robert, Wireless Personal Communications – Bluetooth and Other Technologies, Kluwer Academic Publishers, 2000.
2. W. H. Tranter, B. D. Woerner, T. S. Rappaport, and J. H. Reed, Wireless Personal Communications – Channel Modeling and Systems Engineering, Kluwer Academic Publishers, 1999s.

3. W. H. Tranter, T. S. Rappaport, B. D. Woerner, and J. H. Reed, eds., *Wireless Personal Communications: Emerging Technologies for Enhanced Communications*, Kluwer Press, 1998.
4. T. S. Rappaport, B. D. Woerner, J. H. Reed, and W. H. Tranter, eds., *Wireless Personal Communications: Improving Capacity, Services, and Reliability*, Kluwer Press, 1997.
5. J. H. Reed, B. D. Woerner, and T. S. Rappaport, eds., *Wireless Personal Communications: Advances in Coverage and Capacity*, Kluwer Press, 1997.
6. T. S. Rappaport, B. D. Woerner, and J. H. Reed, eds., *Wireless Personal Communications: The Evolution of PCS*, Kluwer Press, 1996.
7. B. D. Woerner, T. S. Rappaport, and J. H. Reed, eds., *Wireless Personal Communications: Research Developments*, Kluwer Press, 1995.
8. T. S. Rappaport, B. D. Woerner, and J. H. Reed, editors, *Wireless Personal Communications: Trends and Challenges*, Kluwer Press, 1994.

Book Contributions:

1. Hamilton Turner, Jules White, Jeff Reed, José Galindo, Adam Porter, Madhav Marathe, Anil Vullikanti, Aniruddha Gokhale (Vanderbilt University, USA) "Building a Cloud-Based Mobile Application Testbed, "Software Testing in the Cloud: Perspectives on an Emerging Discipline, (382-403)" IGI Global , November 2012
2. A. He, A. Amanna, X. Chen, D. Datla, J. Gaeddert, S.M. Hasan, H. Volos, "Sustainable Green Computing: Practices, Methodologies and Technologies," edited by Dr. Wen-Chen Hu and Dr. Naima Kaabouch, University of North Dakota, USA IGI Global, 2012
3. H. I. Volos, D. Datla, X. Chen, A. He, A. Amanna, T. R. Newman, S.M. Shajedul Hasan, J. H. Reed, and T. Bose, "Green Communications: Realizing Environmentally Friendly, Cost Effective, and Energy Efficient Wireless Systems," in *Energy-Aware Systems and Networking for Sustainable Initiatives*, IGI Global, June 2012
4. "Technical Challenges in Applying Network Neutrality Regulations to Wireless Systems," "Net Neutrality: Contributions to the Debate," Nishith D. Tripathi and Jeffrey H. Reed, Edited by Jorge Perez Martinez, 2011
5. "The Radio Environment Map", (Book Chapter) *Cognitive Radio Technology*, Dr. Bruce Fette, ed., Y. Zhao, S. Mao, J. Neel, and J.H. Reed 2nd edition, 2 April 2009
6. J. Neel. J. Reed, A. MacKenzie, *Cognitive Radio Network Performance Analysis in Cognitive Radio Technology*, B. Fette, ed., Elsevier, 2nd edition, 2 April 2009.
7. Y. Zhao, S. Mao, J. Neel, and J. H. Reed, "The Radio Environment Map" (Book Chapter) in *Cognitive Radio Technology*, B. Fette, ed., 2nd ed., Elsevier, April 2009.
8. J. Neel. J. Reed, and A. MacKenzie, "Cognitive Radio Network Performance Analysis" (Book Chapter) in *Cognitive Radio Technology*, B. Fette, ed., 2nd ed., Elsevier Inc., April 2009.

9. Y. Zhao, B. Le, and J. H. Reed, "Network Support: The Radio Environment Map" (Book Chapter) in *Cognitive Radio Technology*, by B. Fette, Elsevier Inc., pp. 337-363, August 2006, ISBN: 978-0-7506-7952-7.
10. J. O. Neel, J. H. Reed, and A. B. MacKenzie, "Cognitive Radio Performance Analysis" (Book Chapter) in *Cognitive Radio Technology*, by B. Fette, Elsevier Inc., pp. 501-579, August 2006, ISBN: 978-0-7506-7952-7.
11. B. M. Donlan, R. M. Buehrer, and J. H. Reed, "Ultra-wideband Wireless Systems," in the *Encyclopedia of RF and Microwave Engineering*, pp. 5411-5423, Spring 2005, ISBN: 0-471-27053-9.
12. N. D. Tripathi, J. H. Reed, and H. F. VanLandingham, "Application of a Neurofuzzy System to Handoffs in Cellular Communications" (Book Chapter) in *Neuro-Fuzzy and Fuzzy-Neural Applications in Telecommunications (Signals and Communication Technology)*, by P. Stavroulakis, Springer Publishing, May 2004, ISBN: 3540407596.
13. J. H. Reed and C. J. Rieser, "Software Radio: Technical, Business and Market Implications," in *World Market Series Business Briefing Wireless Technology 2001*, WMRC PLC – World Markets Research Centre, pp. 146-150, October 2000, ISBN 1-903140-36-1.
14. P. Petrus and J. H. Reed, "Co-channel Interference in Wireless Communication Systems," in *Encyclopedia of Electrical and Electronics Engineering*, John Wiley & Sons, Inc., February 1999 (invited paper).
15. N. R. Mangalvedhe and J. H. Reed, "Analysis of an Eigenstructure Technique for DSSS Synchronization," in *Wireless Personal Communications: The Evolution of PCS*, Kluwer Press, 1996 (also appears in *Virginia Tech's Sixth Annual Symposium on Wireless Personal Communications*, June 1996), pp. 201-214.
16. J. D. Laster and J. H. Reed, "A Survey of Adaptive Single Channel Interference Rejection Techniques for Wireless Communications," in *Wireless Personal Communications: Research Developments*, Kluwer Press, 1995 (also appears in *Virginia Tech's Fourth Annual Symposium on Wireless Personal Communications*, June 1994), pp.29-54.
17. I. Howitt, J. H. Reed, V. Vemuri, and T. C. Hsia, "Recent Developments In Applying Neural Nets to Equalization And Interference Rejection," in *Wireless Personal Communications: Trends and Challenges*, Kluwer Press, 1994 (also appears in *Virginia Tech's Third Symposium on Wireless Personal Communications*, June 1993), pp.49-58.

Papers in Refereed Journals:

1. Seven Bilen, Alexander Wyglinski, Christopher Anderson, Behrouz Farhang-Boroujeny, Todor Cooklev, Carl Dietrich, Julio Urbina, Stephen Edwards, Jeffrey Reed, " Software-Defined Radio: A New Paradigm for Integrated Curriculum Delivery," IEEE Communications Magazine – Feature Topic on Communications Educations and Training," May 2014.
2. Joseph Mitola III, Joseph Guerci, Jeff Reed, Yu-Dong Yao, Yingying Chen, T. Charles Clancy, Johanna Dwyer, Hongbin Li, Hong Man, and Yi Guo," Accelerating 5G QoE via Public-Private Spectrum Sharing," IEEE Communications Magazine, May, 2014

3. Jung-Min Park, Jeffrey H. Reed, A.A. Beex, T. Charles Clancy, Vireshwar Kumar, Behnam Bahrak, "Security and Enforcement in Spectrum Sharing," Proceedings of IEEE, March 2014, Volume 102, Number 3
4. Stephen M. Dudley, William Christopher Headley, Marc Lichtman, Eyosias Yoseph Imana, Xiaofu Ma, Mahi Abdelbar, Aditya Padaki, Abid Ullah, Munawwar M. Sohul, Taeyoung Yang, and Jeffrey H. Reed, " Practical Issues for Spectrum Management with Cognitive Radios", Proceedings of IEEE, March 2014, Volume 102, Number 3
5. Jason Snyder, Deepan Seeralan, Shereef Sayed, Jeffrey Wilson, Carl B. Dietrich, Stephen H. Edwards, Jeffrey H. Reed, "Open source software-defined radio tools for education, research, and rapid prototyping," International Journal of Communications Systems, Volume 27, Pages 216-232, February 1, 2014
6. Hazem Shatila, Mohamed Khedr, Jeffrey H. Reed, "Opportunistic Channel Allocation Decision Making in Cognitive Radio Communications" International Journal of Communications Systems, Volume 27, Issue 2 Pages 216 – 232 February 2014
7. Jason Snyder, Deepan Seeralan, Shereef Sayed, Jeffrey Wilson, Carl B. Dietrich, Stephen H. Edwards, Jeffrey H. Reed, "Open Source Software-defined Radio Tools for Education, Research, and Rapid Prototyping", International Journal on Software Tools for Technology Transfer, Springer, June 2012
8. Ashwin Amanna, Daniel Ali, David Gonzalez Fitch, and Jeffrey H. Reed, "Hybrid Experiential-Heuristic Cognitive Radio Engine Architecture and Implementation," Journal of Computer Networks and Communications, vol. 2012, Article ID 549106, 15 pages, 2012.
9. Amanna, Ashwin E., Daniel Ali, David Gonzalez Fitch, and Jeffrey H. Reed. "Parametric optimization of software defined radio configurations using design of experiments." Analog Integrated Circuits and Signal Processing 73, no. 2 (2012): 637-648. 1.
10. Reed, J. H.; Bernhard, J. T.; Park, J.-M. "Spectrum Access Technologies: The Past, the Present, and the Future," Proceedings of the IEEE , vol.100, no. Special Centennial Issue, pp.1676-1684, May 2012, (invited paper)
11. Xuetao Chen, Tamal Bose, S.M. Hasan and Jeffrey H. Reed, "Efficient detection of primary users in cognitive radio networks," Journal International Journal of Communication Networks and Distributed Systems, Publisher Interscience Enterprises Ltd, Issue Volume 8, Number 3–4/2012, Pages 267-285.
12. Raqibul Mostafa, Ramesh C. Pallat, Uwe Ringel, Ashok Arman Tikku, and Jeffrey H. Reed, Closed-Loop Transmit Diversity Techniques for Small Wireless Terminals and Their Performance Assessment in a Flat Fading Channel, ETRI Journal, vol.34, no.3, June 2012, pp.319-329.
13. Reed, J. H.; Bernhard, J. T.; Park, J.-M. "Spectrum Access Technologies: The Past, the Present, and the Future," Proceedings of the IEEE , vol.100, no. Special Centennial Issue, pp.1676-1684, May 2012, (invited paper)
14. Ashwin E Amanna, Daniel Ali, Manik Gadhiok, Matthew Price and Jeffrey H Reed, "Cognitive radio engine parametric optimization utilizing Taguchi analysis," EURASIP Journal on Wireless Communications and Networking 2012, 2012:5

15. Xuetao Chen, Tamal Bose, S.M. Hasan and Jeffrey H. Reed, "Efficient detection of primary users in cognitive radio networks," *Journal International Journal of Communication Networks and Distributed Systems*, Publisher Interscience Enterprises Ltd, Issue Volume 8, Number 3–4/2012, Pages 267-285.
16. Shatila, H., Khedr, M. and Reed, J. H., Opportunistic channel allocation decision making in cognitive radio communications. *Int. J. Commun. Syst.*. April 2012. DOI: 10.1002/dac.2350
17. Datla, D.; Chen, X.; Tsou, T.; Raghunandan, S.; Hasan, S.M.S.; Reed, J.H.; Dietrich, C.B.; Bose, T.; Fette, B.; Kim, J.; , "Wireless distributed computing: a survey of research challenges," *Communications Magazine, IEEE* , vol.50, no.1, pp.144-152, January 2012
18. T. Yang, W. Davis, W. Stutzman, J. Nealy, D. Dietrich, S.M. Hasan, J.H. Reed, "Antenna Design Strategy and Demonstration for Software-Defined Radio (SDR)," *Analog Integrated Circuits and Signal Processing: Volume 69, Issue 2 (2011)*, Page 161-171 (update paper from SDR'10 conference)
19. Harpreet S. Dhillon, Jeong-O Jeong, Dinesh Datla, Michael Benonis, R. Michael Buehrer and Jeffrey H. Reed, "A sub-space method to detect multiple wireless microphone signals in TV band white space," *Analog Integrated Circuits and Signal Processing, Springer Netherlands, December 2011, Volume 69, Issue 2*, pp. 297-306. (update paper from SDR'10 conference)
20. Carlos R. Aguayo González and Jeffrey H. Reed, "Power fingerprinting in SDR integrity assessment for security and regulatory compliance," *Analog Integrated Circuits and Signal Processing, Volume 69, Numbers 2-3 (2011)*, 307-327. (update paper from SDR'10 conference)
21. Dinesh Datla, Haris I. Volos, S. M. Hasan, Jeffrey H. Reed and Tamal Bose, "Task allocation and scheduling in wireless distributed computing networks," *Analog Integrated Circuits and Signal Processing* , Volume 69, Numbers 2-3 (2011), 341-353. (update paper from SDR'10 conference)
22. Amanna, K. Thamvichai, M. Carrick, AT. Bose, J. Reed, "Grey Systems Theory Applications to Wireless Communications," *Analog Integrated Circuits and Signal Processing: Volume 69, Issue 2 (2011)*, Page 259 (update paper from SDR'10 conference)
23. An He, Ashwin Amanna, Thomas Tsou, Xuetao Chen, Dinesh Datla, Joseph Gaeddert, Timothy R Newman, Shajedul Hasan, Haris I Volos, Jeffery H Reed, Tamal Bose, "Green Communications: A Call for Power Efficient Wireless Systems," *Journal of Communications, Vol 6, No 4 (2011)*, 340-351, Jul 2011
24. A. He, A. Amanna, T. Tsou, X. Chen. D. Datla, J. Gaeddert, T. Newman, S.M. Hasan, H. Volos, J.H. Reed, T. Bose, "Green Communications: A New Paradigm for Power Efficient Wireless Systems," *Journal of Communications Special Issue on Practical Physical Layer Techniques for 4G Systems & Beyond, Vol 6, No. 5. July 2011.*
25. D. Datla, H.I. Volos, S.M. Hasan, Jeffrey H. Reed and Tamal Bose, "Wireless Distributed Computing in Cognitive Radio Networks, Ad-Hoc Network (Elsevier," available online April 15, 2011. (Print copy to be issued)

26. T. Newman, S.M. Hasan, D.Depoy, T. Bose, J.H.Reed, "Designing and Deploying a Building-Wide Cognitive Radio Network Testbed," *IEEE Communications Magazine*, September 2010
27. A. He, S. Srikantesware, K.K. Bae, T.R. Newman, W. Tranter, M. Verhelst, J. Reed, "Power Consumption Minimization for MIMO Systems- A Cognitive Radio Approach," *IEEE JSAC* September 2010.
28. A. Amanna, M. Ghadiok, M. Price, J.H. Reed, "Railway Cognitive Radio," *IEEE Vehicular Technology Magazine*, September 2010, Volume 5, Issue 3, pages 82-89.
29. A. He, S. Srikanteswara, K. K. Bae, J. H. Reed, and W. H. Tranter, "Energy consumption minimization for mobile and wireless devices - a cognitive approach," *IEEE Transactions on Consumer Electronics*, vol. 56, no. 3, Aug. 2010.
30. A.R. Cormier, Carl B. Dietrich, Jeremy Price, and Jeffrey H. Reed, "Dynamic reconfiguration of software defined radios using standard architectures," *Physical Communication*, vol. 3, no. 2, June 2010, Pages 73-80 ,doi:10.1016/j.phycom.2009.09.002
31. An He, Kyung Kyoon Bae, T.R. Newman, J. Gaeddert, K. Kim, R. Menon, L. Morales, J. Neel, Y Zhao, J.H. Reed, W.H. Tranter, "A Survey of Artificial Intelligence for Cognitive Radios", *IEEE Transactions on Vehicular Technology*, vol. 59, no. 4, May 2010, pp. 1578-1592.
32. Donglin Hu, Shiwen Mao, Y. Thomas Hou, and Jeffrey H. Reed, "Fine grained scalability video multicast in cognitive radio networks," *IEEE Journal on Selected Areas in Communications*, Special Issue on Wireless Video Transmission, vol.28, no.3, pp.334--344, April 2010.
33. Carl B. Dietrich, Jeffrey H. Reed, Stephen H. Edwards, Frank E. Kragh, "Experiences From the OSSIE Open Source Software Defined Radio Project," *Open Source Business Resource*, March, 2010.
34. Menon, R. Macke, A Buehrer M., Reed, J.H. "Interference Avoidance in Networks with Distributed Receivers", *IEEE Transactions on Wireless Communications*, Vo.57, Issue 10, October 2009, pp. 3078-3091.
35. C. R. Anderson, S. Venkatesh, J. Ibrahim, R. M. Buehrer, and J. H. Reed, "Performance and analysis of a time-interleaved ADC array for a software-defined UWB receiver," *Oct. 2009*, Volume: 58, Issue: 8, pp. 4046-4063
36. C. R. Aguayo Gonzalez, C. B. Dietrich, F. E. Kragh, S. Sayed, H. I. Volos, J. D. Gaeddert, P. M. Robert, and J. H. Reed, "Open-source SCA-based core framework and rapid development tools enable software-defined radio education and research," *IEEE Commun. Mag.*, October 2009.
37. C. R. Aguayo Gonzalez, C. B. Dietrich, and J. H. Reed, "Understanding the software communications architecture," *IEEE Commun. Mag.*, vol. 47, no. 9, September 2009.

38. Y. Zhao, S. Mao, J.H. Reed, Y Huang, "Utility Function Selection for Streaming Videos with a Cognitive Engine Test Bed", ACM/Springer Mobile Networks and Applications (MONET) at SpringerLink, August 18, 2009.
39. An He, Joseph Gaeddert, Kyung Kyoon Bae, Timothy R. Newman, Jeffrey H. Reed, R. Chembil Palat, A. Annamalai, and J. H. Reed, "Accurate bit error rate analysis of bandlimited cooperative OSTBC networks under time synchronization errors," *IEEE Trans. Veh. Technol.*, vol. 58, no. 5, pp. 2191-2200, June 2009.
40. S. Haykin, D.J. Thomson, J.H. Reed, "Spectrum Sensing for Cognitive Radio," *Proceedings of the IEEE*, Vol. 97, Issue 5, May 2009, pp. 849-877.
41. R. Menon, A. B. MacKenzie, J. Hicks, R. M. Buehrer, and J. H. Reed, "A game-theoretic framework for interference avoidance," *IEEE Trans. Commun.*, vol. 57, no. 4, pp. 1087-1098, April 2009.
42. An He, J. Gaeddert, K. Bae, T. Newman, J. Reed, I. Morales, and C. H. Park, "Development of a case-based reasoning cognitive engine for IEEE 802.22 WRAN Applications," *ACM SIGMOBILE Special Issue on Cognitive Radio Technologies and Systems*, vol. 13, no. 2, pp. 37-48, April 2009.
43. Lizdabel Morales, Chang-Hyun Park, "Development of a Case-Based Reasoning Cognitive Engine for IEEE 802.22 WRAN Applications," *ACM Sigmobile Mobile Computing and Communications Review*, vol. 13, no.2, pp. 37-48, April 2009.
44. A. B. Mackenzie, J. H. Reed, P. Athanas, C. W. Bostian, R. M. Buehrer, L. A. DaSilve, S. W. Ellingson, Y. T. Hou, M. Hsiao, J. M. Park, C. Patterson, S. Raman, and C. R. C. M. da Silva, "Cognitive radio and networking research at Virginia Tech," *Proceedings of the IEEE*, vol. 97, no. 4, pp. 660-688, April 2009.
45. Y. Zhao, S. Mao, J. O. Neel, and J. H. Reed, "Performance Evaluation of cognitive radios: Metrics, utility functions, and methodology," *Proceedings of the IEEE*, vol. 97, no. 4, pp. 642-659, April 2009.
46. Seung Min Hur, Shiwen Mao, Y. Thomas Hou, Kwanghee Nam, and Jeffrey H. Reed, "On exploiting location information for concurrent transmission in multi-hop wireless networks," *IEEE Transactions on Vehicular Technology*, vol.58, no.1, pp.314-323, January 2009.
47. R. Menon, R. M. Buehrer, and J. H. Reed, "On the impact of dynamic spectrum sharing techniques on legacy radio systems," *IEEE Trans. Wireless Commun.*, vol. 7, no. 11, part 1, pp. 4198-4207, November 2008.
48. D.-K. Park, T. Saba, and J. H. Reed, "Technical Standard for unlicensed radio device on DTB band in U.S.A.," *IEICE Trans. Commun.*, (Japanese Edition), vol. J91-B, no. 11, pp. 1351-1358, November 2008.
49. R. Chen, J.-M. Park, Y. T. Hou, and J. H. Reed, "Toward secure distributed spectrum sensing in cognitive radio networks" (cognitive radio communication and networks), *IEEE J. Select. Areas Commun.*, vol. 46, no. 4, pp. 50-55, April 2008.

50. R. C. Patat, A. Annamalai, and J. H. Reed, "An efficient method for evaluation information outage probability and ergodic capacity of OSTBC systems," *IEEE Commun. Lett.*, vol. 12, no. 3, pp. 191-193, March 2008.
51. R. Chen, J.-M. Park, and J. H. Reed, "Defense against primary user emulation attacks in cognitive radio networks," *IEEE J. Select. Areas Commun.*, vol. 16, no. 1, pp. 25-37, January 2008.
52. S. Mao, X. Cheng, Y. T. Hou, H. D. Sherali, and J. H. Reed, "On joint routing and server selection for MD video streaming in ad hoc networks," *IEEE Trans. Wireless Commun.*, vol. 6, no. 1, pp. 338-347, January 2007.
53. C. A. Gonzalez, F. Portelinha, and J. H. Reed, "Design and implementation of an SCA core framework for a DSP platform," part 1, *Military Embedded Systems Mag.*, March/April 2007 issue. Part 2 in May/June 2007 issue.
54. J. O. Neal, R. Menon, A. B. MacKenzie, J. H. Reed, and R. P. Gilles, "Interference reducing networks," *MONET Special Issue - Cognitive Radio Oriented Wireless Networks Commun.*, February 2007.
55. N. Ryu, Y. Yun, S. W. Choi, R. Chembil Palat, and J. H. Reed, "Smart antenna base station open Architecture for SDR networks," *IEEE Trans. Wireless Commun.*, vol. 13, no. 3, pp. 58-69, June 2006.
56. L. daSilva, G. E. Morgan, C. W. Bostian, S. F. Midkiff, J. H. Reed, C. Thompson, W. G. Newhall, and B. D. Woerner, "The resurgence of push-to-talk technologies," *IEEE Commun. Mag.*, vol. 44, no. 2, pp. 48-55, January 2006.
57. V. Srivastava, J. Neel, A. Mackenzie, J. Hicks, L. DaSilva, J. H. Reed, and R. P. Gilles, "Using game theory to analyze wireless ad hoc networks," *IEEE Commun. Surveys Tutorials*, pp. 46-56, December 2005.
58. B. Le, T. W. Rondeau, J. H. Reed, and C. W. Bostian, "Analog-to-digital Converters," *IEEE Signal Processing Mag.*, pp. 69-77, November 2005.
59. R. Mostafa, R. Gozali, P. M. Robert, R. Chembil Palat, B. D. Woerner, and J. H. Reed, "Design and implementation of a DSP-based MIMO system prototype for real-time demonstration and indoor channel measurements," *Eurasip J. Applied Signal Processing*, vol. 2005, no. 16, pp. 2673-2685, September 2005.
60. R. Mostafa, A. Annamalai, and J. H. Reed, "Performance evaluation of cellular mobile radio systems with adaptive interference nulling of dominant interferers," *IEEE Trans. Commun.*, vol. 52, no. 2, pp. 326-335, February 2004.
61. S. Srikanteswara, R. Chembil Palat, J. H. Reed, and P. Athanas, "Overview of configurable Computing machines for software radio handsets," *IEEE Commun. Mag.*, pp. 134-141, July 2003.
62. J. D. Laster, J. H. Reed, and W. H. Tranter, "Bit error rate estimation using probability density function estimators," *IEEE Trans. Veh. Technol.*, vVol. 52, no. 1, pp. 260-267, January 2003.

63. P. Petrus, J. H. Reed, and T. S. Rappaport, "Geometrical-based statistical macrocell channel model for mobile environments," *IEEE Trans. Commun.*, vol. 50, no. 3, pp. 495-502, March 2002.
64. R. Mostafa, F. Alam, K. K. Bae, J. H. Reed, W. H. Tranter, and B. D. Woerner, "3G-around the world and back again," *RF Design*, February 2002.
65. J. Hicks, S. Bayram, W. H. Tranter, R. J. Boyle, and J. H. Reed, "Overloaded array processing with spatially reduced search joint detection," *IEEE J. Select. Areas Commun.*, vol. 19, no. 8, pp. 1584-1593, August 2001.
66. T. Li, Y. M. Vasavada, B. D. Woerner, and J. H. Reed, "A novel direct sequence spread spectrum CDMA system with analog frequency modulation," *International J. Wireless Inform. Networks*, vol. 7, no.1, pp. 43-53, 2000.
67. M. Majmundar, N. Sandhu, and J. H. Reed, "Adaptive single-user receivers for direct-sequence spread-spectrum CDMA systems," *IEEE Trans. Veh. Technol.*, vol. 49, no. 2, pp. 379-389, March 2000.
68. T. E. Biedka, W. H. Tranter, and J. H. Reed, "Convergence analysis of the least squares constant modulus algorithm in interference cancellation applications," *IEEE Trans. Commun.*, vol. 48, no. 3, pp. 491-501, March 2000.
69. S. Srikanteswara, J. H. Reed, P. Athanas, and R. Boyle, "A soft radio architecture for reconfigurable platforms," *IEEE Commun. Mag.*, pp. 140-147, February 2000.
70. R. B. Ertel and J. H. Reed, "Angle and time of arrival Statistics for circular and elliptical scattering models," *IEEE J. Select. Areas Commun., Wireless Commun. Series*, vol. 17, no. 11, pp. 1829-1840, November 1999.
71. N. Tripathi and J. H. Reed, "Handoffs in cellular systems," *IEEE Pers. Commun.*, pp. 26-37, December 1998.
72. R. B. Ertel and J. H. Reed, "Generation of two equal power correlated Rayleigh fading envelopes," *IEEE Commun. Lett.*, vol. 2, no. 10, pp. 276-278, October 1998.
73. P. J. Athanas, J. H. Reed, and W. H. Tranter, "A prototype software radio based on configurable computing," *Advancing Microelectronics, Special Wireless Issue*, vol. 5, no. 3, pp. 33-38, 1998. (invited paper)
74. J. H. Reed, K. J. Krizman, B. D. Woerner, and T. S. Rappaport, "An overview of the challenges and progress in meeting the E911 requirement for location service," *IEEE Commun. Mag.*, pp. 30-37, April 1998.
75. P. Petrus, R. B. Ertel, and J. H. Reed, "Capacity enhancement using adaptive arrays in an AMPS system," *IEEE Trans. Veh. Technol.*, vol. 47, no. 3, pp. 717-727, August 1998.
76. P. Petrus, J. H. Reed, and T. S. Rappaport, "Geometrically based statistical macrocell channel model for mobile environments," *IEEE Trans. Commun.*, accepted for publication.
77. R. B. Ertel, P. Cardieri, K. W. Sowerby, T. S. Rappaport, and J. H. Reed, "Overview of spatial channel models for antenna array communication systems," *IEEE Pers. Commun.*,

- pp. 10-22, February 1998. (Also appears in *IEEE Smart Antennas: Adaptive Arrays, Algorithms, Wireless Position Location*, pp. 447-456, 1998.)
78. P. Petrus and J. H. Reed, "Performance analysis of the spectral correlation discriminator array," *International J. Wireless Pers. Commun. Special Issue*, pp. 337-359, February 1998.
 79. Z. Rong, P. Petrus, T. S. Rappaport, and J. H. Reed, "Despread-respread multi-target constant modulus array for CDMA systems," *IEEE Commun. Lett.*, pp. 114-116, July, 1997.
 80. J. Laster and J. H. Reed, "Interference rejection in digital wireless communications," *IEEE Signal Processing Mag.*, pp. 37-62, May, 1997.
 81. P. Petrus, J. H. Reed, and T. S. Rappaport, "Effects of directional antennas at the base station on the doppler spectrum," *IEEE Commun. Lett.*, pp. 40-42, March 1997. (Also appears in *IEEE Smart Antennas: Adaptive Arrays, Algorithms, Wireless Position Location*, pp. 489-491, 1998.)
 82. F. Dominique, J. H. Reed, "Subspace based PN code sequence estimation for direct sequence signals simplified Hebb rule," *IEEE Electron. Lett.*, vol. 33, pp. 1119-1120, June 1997.
 83. F. Dominique and J. H. Reed, "Estimating spectral correlations using the least mean square algorithm," *IEE Electron. Lett.*, pp. 182-184, January 1997.
 84. F. Dominique and J. H. Reed, "A despread data rate update multi-target adaptive array for CDMA signals," *IEE Electron. Lett.*, pp. 119-121, January 1997.
 85. F. Dominique and J. H. Reed, "A simple PN code sequence estimation and synchronization techniques using the constrained Hebbian rule," *IEE Lett.*, pp. 37-38, January 1997.
 86. B. G. Agee, R. J. Kleinman, and J. H. Reed, "Soft synchronization of direct sequence spread spectrum signals," *IEEE Trans. Commun.*, pp. 1527-1536, November, 1996.
 87. T. S. Rappaport, J. H. Reed, and B. D. Woerner, "Position location using wireless communications on highways of the future," *IEEE Commun. Mag.*, vol. 34, no. 10, pp. 33-41, October 1996. (invited paper) (Also appears in *IEEE Smart Antennas: Adaptive Arrays, Algorithms, Wireless Position Location*, pp. 393-401, 1998.)
 88. N. Mangalvedhe and J. H. Reed, "Evaluation of a soft synchronization technique for DS/SS signals," *IEEE J. Select. Areas Commun.*, vol. 14, no. 8, pp. 1643-1652, October 1996.
 89. F. Dominique and J. H. Reed, "A robust frequency hop synchronization algorithm," *IEE Electron. Lett.*, vol. 32, no. 16, pp. 1450-1451, August 1996.
 90. P. Petrus and J. H. Reed, "Time dependent adaptive arrays," *IEEE Signal Processing Lett.*, vol. 2, no. 12, pp. 219-222, December 1995.

91. J. H. Reed, N. Yuen, and T. C. Hsia, "An optimal receiver implemented using a time-dependent adaptive filter," *IEEE Trans. Commun.*, vol. 43, no. 2/3/4, pp. 187-190, February-March-April 1995.
92. B. D. Woerner, J. H. Reed, and T. S. Rappaport, "Simulation issues for future wireless modems," *IEEE Commun. Mag.*, vol. 32, no. 7, pp. 42-53, July 1994. (invited paper)
93. R. Mendoza, J. H. Reed, T. C. Hsia, and B. G. Agee, "Interference rejection using the generalized constant modulus algorithm and the hybrid CMA/SCD," *IEEE Trans. Signal Processing*, pp. 2108-2111, vol. 39, no. 9, September 1991.
94. J. H. Reed and T. C. Hsia, "The performance of time-dependent adaptive filters For interference rejection," *IEEE Trans. Acoustics, Speech, Signal Processing*, vol. 38, no. 8, pp. 1373-1385, August 1990.

Conference Papers:

Accepted on the basis of peer review

1. Behnam Bahrak, Sudeep Bhattarai, Abid Ullah, Jung-Min Park, Jeffrey Reed, David Gurney, "Protecting the Primary Users' Operational Privacy in Spectrum Sharing" IEEE DySPAN 2014, April 2014, Awarded best paper.
2. E. Y. Imana, , M. Yao, R. Neally, T. Yang, J. Reed, "Demonstration of Dynamic Spectrum Access Based LTE in the 3.5 GHz Band," IEEE DySPAN, April 2014.
3. Aditya, V. Padaki, Avik Sengupta, Mahi Abdelbar, Jeffrey H. Reed, and William H. Tranter, "An Orthogonal Spectrum Sharing Scheme for Cognitive LTE Networks," SDR WInnComm 2014, Schaumburg, IL, March 2014
4. Aditya V. Padaki, Vuk Marojevic and Jeffrey H. Reed, "Role of Receiver Performance Data in Efficient Spectrum Utilization," IEEE DySPAN 2014, McLean VA April 2014
5. Aditya V. Padaki and Jeffrey H. Reed, "Impact of Intermodulation Distortion on Spectrum Preclusion for DSA: A New Figure of Merit," IEEE DySPAN 2014, McLean VA, April 2014
6. Munawwar M. Sohal, Raghuprasad, Aman Singhal, Jeffrey H. Reed, " Information Assurance of LTE-Advanced Self-Organizing Networks", SDR-WInnComm Conference 2014, Schaumburg, ILL, March 2014
7. M. Lichtman, J.H. Reed, T.C. Clancy, M. Norton, "Vulnerability of LTE to Hostile Interference," IEEE Global Conference on Signal and Information Processing, Austin, Texas, December 2013
8. Marc Lichtman, Jeffrey H. Reed, T. Hhaarles Clancy, Mark Norton, "Vulnerability of LTE to Hostile Interference," Global Conference on Signal and Information Processing (GlobalSIP) IEEE Pages 285 – 288 December 3, 2013
9. Marc Lichtman, William C. Headley, Jeffrey H. Reed, "Automatic Modulation Classification under IQ Imbalance Using Supervised Learning," Military Communications Conference, MILCOM November 18, 2013 IEEE, pages 1622 – 1627

10. Shraavan Garlapati, Phani Teja, Michael Buehrer, Jeffrey Reed, "OTRA-THS MAC to Reduce Power Outage Data Collection Latency in a Smart Meter Network," International Conference on Computing, Networking and Communications (ICNC) Honolulu, HI February 2014
11. Christopher Barrett, Keith Bisset, Shridhar Chandan, Jiangzhuo Chen, Youngyun Chungbaek, Stephen Eubank, Yaman Evrenosoglu, Bryan Lewis, Kristian Lum, Achla Marathe, Madhav Marathe, Henning Mortveit, Nidhi Parikh, Arun Phadke, Jeffrey Reed, Caitlin Rivers, Sudip Saha, Paula Stretz, Samarth Swarup, James Thorp, Anil Vullikanti, Dawen Xie, "Department of Computer Science, Agriculture and Applied Economics, Electrical and Computer Engineering, Network Dynamics and Simulations Science Laboratory, Virginia Bioinformatics Institute Virginia Tech," Simulation Conference (WSC), pages 1515-1526 August 12, 2013
12. J.H. Reed, "An Example of Wireless Distributed Computing Network on CORNET", SDR-WinnComm Conference, January 8-10, 2013 in Washington, D.C.
13. R. Mahajan, R. Mueller, J. Reed, C Williams, T Campbell, N. Ramakrishnan, "Cultivating Emerging and Blacks Swan Technologies," Proceedings of the ASME 2012 International Mechanical Engineering Congress and Exposition, November 9-15, Huston, TX, 2012.
14. Tsou, Thomas, Thomas Cooper, Robert McGwier, T. Charles Clancy, and Jeffrey Reed. "Development of an open-source GSM femtocell and integrated core infrastructure." In Military Communications Conference, 2012-MILCOM 2012, pp. 1-6. IEEE, 2012. R. Mahajan, R. Mueller, J. Reed, C Williams, T Cambell, N. Ramakrishnan, "Cultivating Emerging and Blacks Swan Technologies," Proceedings of the ASME 2012 International Mechanical Engineering Congress and Exposition, November 9-15, Huston, TX, 2012.
15. C. Dietrich and J.H. Reed, "OSSIE SCA-based Open Source SDR," 2011 IEEE MTT Society's International Microwave Symposium, June 5-10, Baltimore, MD
16. C. Dietrich, E. Wolfe, G. Vanhoy, C. Evans, "Cognitive Radio Testing Using Psychometric Approaches," Wireless Innovation Conference and Product Exposition (SDR'11-WinnCom) November 29-December 2, 2011 in Washington, D.C. Dietrich and J.H. Reed, "OSSIE SCA-based Open Source SDR," 2011 IEEE MTT Society's International Microwave Symposium, June 5-10, Baltimore, MD
17. C. Dietrich, E. Wolfe, G. Vanhoy, C. Evans, "Cognitive Radip Testing Using Psychometric Approaches," Wireless Innovation Conference and Product Exposition (SDR'11-WinnCom) November 29-December 2, 2011 in Washington, DC.
18. Yaeyoung Yang, William A. Davis, Warren L. Stuzman, S.M. Hasan, Randall Nealy, Carl B. Dietrich and Jeffrey H. Reed; "Antenna Design Strategy and Demonstration for Software-Defined Radio", SDR'10 November 30th – December 3rd, Washington DC
19. D. Datla, S.M. Hasan, T. Bose, J. Reed, "Computational Accuracy of Distributed Signal Processing in Wireless networks," SDR'10 November 30th – December 3rd, Washington, DC
20. H, Gaedderm H, Reedm "Resource Managementwith Real-Time Complexity Monitoring in Software-Defined Radios", SDR'10 November 30th – December 3rd, Washington, DC

21. C. Gonzalez, C. Dietrich, F. Kragh, J. Reed, "SDR Design for Retrofit using Coprocessor and Distributed Architectures," SDR'10 November 30th – December 3rd, Washington, DC
22. A. Amanna, M.Price, K. Thamavichai, T.Bose, J.H.Reed,"Grey Systems Theory Applications to Wireless Communications", SDR'10 November 30th – December 3rd, Washington, DC
23. S.Moola, S.M.Hasan, C.Dietrich, J.H.Reed, "Rapid Prototyping of a SDR Based Reconfigurable MIMO-OFDM Testbed," SDR'10 November 30th – December 3rd, Washington, DC
24. K.Rele, T.R. Newman, J. Reed, "Security Techniques for Attack Resilient Software Defined Radio," SDR'10 November 30th – December 3rd, Washington DC
25. Dinesh Datla, S.M. Hasan, Tamal Bose, Jeffrey H. Reed; "Fundamental Issues of Wireless Distributed Computing in SDR Networks," SDR'10 November 30th – December 3rd, Washington DC.
26. C. Nikhil, J. O-Jeong, C. Dietrich, T.R. Newman, J. Reed, "Evaluation Optimization Techniques for Software Defined Radio Cognitive Radio System Performance", SDR'10 Nov. 30 - Dec 3, 2010 Washington, DC
27. Sabares Moola, S.M. Hasan, Carl B. Dietrich, and Jeffrey H. Reed; "Integration of a SDR Based Reconfigurable MIMO-OFDM Testbed into OSSIE, SDR'10 November 30th – December 3rd, Washington DC.
28. Xueato Chen, S.M. Hasan, Tamal Bose, and Jeffrey H. Reed; "Software Defined Radio Based WirelessGrids" SDR'10 November 30th – December 3rd, Washington DC.
29. C. R. Aguayo Gonzalez and J. H. Reed, "Power Fingerprinting in Unauthorized Software Execution Detection for SDR Regulatory Compliance," Proceedings of the SDR'10,. Washington DC, December, 2010.
30. T.Newman, C.Clancy, M.McHenry, and Jeffrey H. Reed, "Case Study: Security Analysis of a Dynamic Spectrum Access Radio System," IEEE Military Communications Conference MILCOM 2010, Oct. 31-Nov4, 2010 San Jose, CA
31. C. R. Aguayo Gonzalez and J. H. Reed, "Detecting Unauthorized Software Execution in SDR using Power Fingerprinting, IEEE MILCOM 2010. November, 2010.
32. Amanna, M. Price, S. Bera, M. Gadhiok, J.H. Reed, "Cognitive Architecture for Railway Communications", Proceedings of the 2010 ASME Rail Transportation Division Fall Technical Conference, Roanoke, VA, October 2010.
33. Dinesh Datla, Xuetao Chen, Timothy Newman, Jeffrey H. Reed, Tamal Bose, "Power Efficiency in Wireless Network Distributed Communications," IEEE Vehicular Technology Conference, Anchorage, Alaska, September 20-23, 2010
34. Dietrich, C., F. Kragh, S.M. Hasan, J.H. Reed, D. Miller, S.H. Edwards, "Enhancements to Software Defined Radio Design Engineering Education," *ASEE SE Section Annual Conference*, April 18-20, 2010

35. Dietrich, C., F. Kragh, S.M. Hasan, C. Aguayo Gonzalez, A. Adenariwo, H.I. Volos, C. Detrich, D. Miller, J. Snyder, S.H. Edwards, J.H. Reed, "Implementation and Evaluation of Laboratory/Tutorial Exercises for Software Defined Radio Education," ASEE SE Section Annual Conference, April 18-20, 2010.
36. Amanna, M. Gadhiok, M. Price, J.H. Reed, W. Siriwongpairat, T. Himsoon, "Rail-CR: Cognitive Radio for Enhanced Railway Communications", Proceedings of Joint ASME (IEEE) Railway Conference, Urbana, IL, April 2010.
37. Amanna and J. H. Reed, "Survey of Cognitive Radio Architectures", IEEE Southeastcon 2010 – Energizing Our Future, in Charlotte, NC, March 18 – 21 2010
38. X. Chen, T.R. Newman, D. Datla, T. Bose, J.H. Reed, "The Impact of Channel Variances on the Wireless Distributed Computing Networks"; *Proceedings of the IEEE Global Communications Conference* Honolulu, HI.; November 30 – December 4, 2009.
39. He, S. Srikanteswara, K. Bae, T. R. Newman, J.H. Reed, W. H. Tranter, M. Sajadieh, and M. Verhelst, "System Power Consumption Minimization for Multichannel Communications Using Cognitive Radio, " in COMCAS 2009, Tel Aviv, Israel Nov. 9 – 11, 2009.
40. Dinesh Datla, Xuetao Chen, Timothy Newman, Jeffrey Reed, and Tamal Bose, "Power Efficiency in Wireless Network Distributed Computing." Appeared in the Proceedings of the IEEE VTC-Fall 2009 Conference held September 20-23 in Anchorage, Alaska
41. D. Datla, T. Tsou, T. R. Newman, J. H. Reed, and T. Bose, "Waveform level computational energy management in software defined radios." *SDR Forum*, December 2009. (won best paper award)
42. J. D. Gaeddert and J. H. Reed, "Leveraging software flexibility for managing power consumption in baseband processing," *SDR Forum*, December 2009.
43. T. Tsou, J. Reed, "Software Architecture for Cooperative Applications," SDR Forum Technical Conference, November 1-4, 2009 in Washington DC.
44. M. Carrick, S. Sayed, C. B. Dietrich, and J. H. Reed, "Integration of FPGAs into SDR via memory-mapped I/O," *SDR Forum*, December 2009.
45. S. Moola, C. Aguayo Gonzalez, C. B. Dietrich, and J. H. Reed, "Distributed wireless computing with multiple domains." *SDR Forum*, December 2009.
46. Aguayo Gonzalez and J. H. Reed, "Dynamic power consumption monitoring in SDR regulatory compliance," *SDR Forum*, December 2009.
47. He, T. R. Newman, J. H. Reed, W. H. Tranter, M. Sajadieh, M. Verhelst, S. Srikanteswara, and K. K. Bae, "Power consumption minimization for MIMO systems using cognitive radio," *SDR Forum*, December 2009.
48. J. D. Gaeddert and J. H. Reed, "Leveraging software flexibility for managing power consumption in baseband processing." *SDR Forum*, December 2009.

49. X. Chen, T. R. Newman, D. Datla, T. Bose, and J. H. Reed, "The impact of channel variations on wireless distributed computing networks." *IEEE Global Commun. Conf., (GlobeCom)*, November-December 2009.
50. He, S. Srikanteswara, K. K. Bae, T. R. Newman, J. H. Reed, W. H. Tranter, M. Sajadieh, and M. Verhelst, "System power consumption minimization for multichannel communications using cognitive radio," *IEEE International Conf. Microwaves, Commun., Antennas Electronic Syst. (COMCAS)*, November 2009.
51. C.A. Gonzalez, J.H. Reed," Power Fingerprinting in SDR & CR Integrity Assessment, *IEEE MILCOM 2009* in Boston, MA, October 18 – 21, 2009.
52. L. Morales, J.E. Suris, J.H. Reed," A Hybrid Cognitive Engine for Improving Coverage in 3G Wireless Networks" *IEEE ICC Joint Workshop on Cognitive Wireless Networks and Systems*, June, 2009.
53. Donglin Hu, Shiwen Mao, and Jeffrey H. Reed, "On video multicast in cognitive radio networks," in *Proc. IEEE INFOCOM 2009*, Rio de Janeiro, Brazil, pp.2222-2230, April 2009.
54. Youping Zhao, Shiwen Mao, Jeffrey H. Reed, and Yingsong Huang, "Experimental study of utility function selection for video over cognitive radio networks," in *Proc. TRIDENTCOM 2009*, Washington D.C., pp.1-10, April 2009.
55. He, S. Srikanteswara, J. H. Reed, X. Chen, W. H. Tranter, K. K. Bae, and M. Sajadieh, "Minimizing energy consumption using cognitive radio," *IEEE Int. Conf. Performance, Computing Commun., (IPCCC)*, December 2008, pp. 372-377.
56. Ramkumar, T. Bose, J. Reed, and M. Radenkovic, "Minimizing energy consumption using cognitive radio: Combined blind equalization and automatic modulation classification for cognitive radios under MIMO environment," *IEEE DySPAN Symposium*, October 2008.
57. Gonzales, C. Dietrich, and J. H. Reed, "Distributed SDR applications for distance learning," *IEEE DySPAN Symposium*, October 2008.
58. Dieteich, D. Kumaraswamy, S. Raghunandan, L. Le, and J. H. Reed, "Open space radio: An open source implementation of STRS 1.01," *IEEE DySPAN Symposium*, October 2008.
59. T. Newman, X. Chen, D. Datla, H. Volos, C. Dietrich, T. Bose, and J. H. Reed, "Cornet" cognitive radio mesh and dynamic spectrum allocation demonstration," *IEEE DySPAN Symposium*, October 2008.
60. R. Chembil Palat, A. Annamalai, and J. H. Reed, "Log-likelihood-radio based selective decode and forward cooperative communication," *IEEE Veh. Technol. Conf.*, May 2008 pp. 615-618
61. R. Chembil Palat, A. Annamalai, and J. H. Reed, "Log-likelihood-radio based selective decode and forward cooperative communication," *IEEE Veh. Technol. Conf.*, May 2008.

62. R. Chembil Palat, A. Annamalai, and J. H. Reed, "Precise error rate analysis of bandlimited BPSK system with timing errors and cochannel interference under generalized fast fading channels," *IEEE Veh. Technol. Conf.*, May 2008, pp. 1306–1310.
63. M. H. Seung, Mao, K. Nam and J. H. Reed, "On concurrent transmissions in multi-hop wireless networks with shadowing channels," *IEEE Int. Conf. Commun.*, May 2008, pp. 2662-2666.
64. K. Kim, C. M. Spooner, I. Akbar, and J. H. Reed, "Specific emitter identification for cognitive radio with application," *IEEE Global Commun. Conf.*, Nov.-Dec. 2008, pp. 1–5.
65. S. Mao, J. H. Reed, and Y. Zhao, "Experimental study of utility functions selection for video over IEEE 802.22 wireless regional area networks," *TRIDENTCOM*, 2009
66. M. Shiwen, J. H. Reed, and H. Donglin, "'On video multicast in cognitive Radio networks," *INFOCOM*, April 2009.
67. R. Chembil Palat, A. Annamalai, and J. H. Reed, "Precise error rate analysis of bandlimited BPSK system with timing synchronization errors and asynchronous cochannel interference under generalized rapid-fading channels," *IEEE Veh. Technol. Conf. (VTC)*, May 2008.
68. R. Chembil Palat, A. Annamalai, and J. H. Reed, "Efficient computation of information outage probability and ergodic capacity of OSTBC systems," *IEEE Veh. Technol. Conf. (VTC)*, May 2008, pp. 1428–1432.
69. S. Haykin, J. H. Reed, and D. Thomson, "Spectrum sensing for cognitive radio," *IEEE Proceedings*, vol. 97, no. 5, pp. 849-877, May 2009.
70. X. Chen, T. Bose, A. He, and J. H. Reed, "A high efficiency outphasing transmitter structure for wireless communications," *IEEE DSP Workshop*, January 2009.
71. S. M. Hur, S. Mao. K. Nam, and J. H. Reed, "On concurrent transmissions in multi-hop wireless networks with shadowing channels," *IEEE ICC*, May 2008.
72. J. H. Reed, C. Dietrich, D. Miller, and F. Kragh, "Education in software defined radio design engineering", *Proceedings CD*, ASEE, ECD Division Program, February 2008.
73. S. H. Won, H. J. Park, J. O. Neel, and J. H. Reed, "Inter-cell interference coordination/avoidance for frequency reuse by resource scheduling in and OFDM-based cellular system," *66th IEEE Veh. Technol. Conf. (VTC)*, September–October 2007, pp. 1722–1725.
74. Y. Zhao, J. Gaeddert, L. Morales, K. K. Bae, and J. H. Reed, "Development of radio environment map enabled case-and knowledge-base learning algorithms for IEEE 802.22 WRAN cognitive engines," *2nd International Conf. Cognitive Radio Oriented Wireless Networks Commun. (CROWNCOM)*, August 2007.

75. J.-H. Kim; K. K. Bae, J. H. Reed, and A. Annamalai, "Capacity and coverage of reverse link DS/CDMA cellular systems with MIMO implementations," *IEEE International Conference Commun. (ICC)*, June 2007, pp. 5897-5902.
76. R. Menon, A. B. Mac Kenzie, R. M. Buehrer, and J. H. Reed, "Joint power control and waveform adaptation for distributed networks," *IEEE Global Commun. Conf. (GlobeCom)*, November 2007, pp. 694-699.
77. R. Aguayo Gonzalez and J. H. Reed, "Validation and verification of modular software for software-defined radios," *Software Defined Radio Conference (SDR Forum)*, November 2007.
78. R. Aguayo Gonzalez and J. H. Reed, "Dynamic spectrum access assessment in cognitive radios," *Software Defined Radio Conference (SDR Forum)*, November 2007.
79. J. Gaeddert, H. I. Volos, D. Cormier, and J. H. Reed, "Multi-rate synchronization of digital receivers in software-defined radios," *Software Defined Radio Conference (SDR Forum)*, November 2007.
80. Y. Zhao, D. Raymond, C. daSilva, J. H. Reed, and S. F. Midkiff, "Performance evaluation of radio environment map-enabled cognitive sharing networks," *IEEE Military Commun. Conf. (MILCOM)*, October 2007, pp. 1-7.
81. J. H. Kim, K. K. Bae, and J. H. Reed, "Capacity and coverage of reverse link DS/CDMA cellular systems with MIMO implementations." *IEEE International Conf. Commun. (ICC)*, June 2007, pp. 5897-5902.
82. J. O. Neel, R. Menon, A. B. MacKenzie, and J. H. Reed, "Interference reducing networks," *CrownCom*, August 2007, pp. 96-104.
83. Y. Zhao, L. Morales, J. Gaeddert, K. K. Bae, J.-S. Um, and J. H. Reed, "Applying radio environment maps to cognitive wireless regional area networks," *DYSPAN Conf.*, April 2007.
84. K. Kim, I. A. Akbar, K. K. Bae, J.-S. Um, and J. H. Reed, "Cyclostationary approaches to signal detection and classification in cognitive radio," *DYSPAN Conf.*, April 2007.
85. R. Menon, A. B. MacKenzie, R. M. Buehrer, and J. H. Reed, "A game-theoretic framework for interference avoidance in ad hoc networks," *IEEE GlobeCom*, November-December 2006.
86. J. O. Neel and J. H. Reed, "Performance of distributed dynamic frequency selection schemes for interference reducing networks," *IEEE MILCOM*, October 2006.
87. Y. Zhao, J. H. Reed, S. Mao, K. K. Bae, "Overhead analysis for radio environment map (REM)-enabled cognitive radio networks," *IEEE Conf. Sensor, Mesh, Ad Hoc Commun. Networks (SECON)*, September 2006.
88. S. Venkatesh, C. R. Anderson, R. M. Buehrer, and J.H. Reed, "On the use of pilot-assisted matched filtering in UWB time-interleaved sampling," *International Conf. Ultra-Wideband (ICUWB)*, September 2006, pp. 119-124.

89. J. O. Neel, M. Robert, and J. H. Reed, "A formal methodology for estimating the feasible processor solution space for a software radio," *Software Defined Radio Forum (SDR Forum)*, November 2005, pp. A117-A122.
90. C. Anderson and J. H. Reed, "Performance analysis of a time-interleaved sampling for a software defined ultra wideband receiver," *Software Defined Radio Forum (SDR Forum)*, November 2005, pp. A75-A80.
91. R. Chembil Palat, A. Annamalai, and J. H. Reed, "Cooperative relaying for ad-hoc ground networks using Swarm UAVS," *IEEE Military Commun. Conf. (MILCOM)*, October 2005, pp. 3314-3320.
92. N. Ryu, Y. Yun, S. Choi, and J. H. Reed, "Smart antenna implemented with reconfigurable devices for ADR network," *IEICE Technical Committee Software Radio*, July 2005, pp. 15-22.
93. J.-H. Kim, K. K. Bae, A. Annamalai, and J. H. Reed, "The impact of transmit diversity on the Erlang capacity of reverse link DS/CDMA," *International Symposium Personal Indoor Mobile Radio Commun. (IPMRC)*, September 2005.
94. S. Mao, X. Cheng, Y. T. Hou, H. Sherali, and J. Reed, "Joint routing and server selection for multiple description video streaming in ad hoc networks," *IEEE International Conf. Commun. (ICC)*, May 2005, pp. 2993-2999.
95. Y. T. Hou, Y. Shi, J. H. Reed, and K. Sohraby, "Flow routing for variable bit rate source nodes in energy-constrained wireless sensor networks" *IEEE International Conf. Commun. (ICC)*, May 2005, pp. 3057-3062.
96. K. K. Bae, J.-H. Kim, A. Annamalai, W. H. Tranter, and J. H. Reed, "Impact of transmit diversity at handsets on the reverse link DS/CDMA system capacity," *IEEE Global Commun. Conf. (GLOBECOM)*, November-December 2004, vol. 6, pp. 3700-3704.
97. J. A. Neel, J. H. Reed, and R. P. Gilles, "Game models for cognitive radio algorithm analysis," *Software Defined Radio Forum (SDR Forum)*, November 2004. (Best Paper Award)
98. R. Menon, R. M. Buehrer, J. H. Reed, and A. MacKenzie, "Game theory and interference avoidance in decentralized networks," *Software Defined Radio Forum (SDR Forum)*, November 2004.
99. J. O. Neel, S. Srikanteswara, J. H. Reed, and P. M. Athanas, "A comparative study of the suitability of a custom computing machine and a VLIW DSP for use in 3G applications," *IEEE Workshop Signal Processing Systems (SIPS)*, October 2004, pp. 188-193. Alam, B. L. P. Cheung, R. Mostafa, W. G. Newhall, B. D. Woerner, and J. H. Reed, "Sub-band beamforming for OFDM systems in practical channel condition," *IEEE Veh. Technol. Conf. (VTC Fall)*, September 2004, vol. 1, pp. 235-239.
100. J.-H. Kim, K. K. Bae, A. Annamalai, W. H. Tranter, and J. H. Reed, "Reverse link Capacity and interference statistics of DS/CDMA with transmit diversity," *IEEE Veh. Technol. Conf. (VTC Fall)*, September 2004, vol. 6, pp. 4320-4324.

101. J. A. Neel, J. H. Reed, and R. P. Gilles, "Convergence on cognitive radio networks," *IEEE Wireless Commun. Networking Conf. (WCNC)*, March 2004.
102. D. Murotake, A. Fuchs, A. Martin, B. Fette, J. H. Reed, and P. M. Robert, "A lightweight software communications architecture (SCA) launcher implementation for embedded radios," *Software Defined Radio Technical Conf. Product Exposition (SDR Forum)*, November 2003, paper SW3-001.
103. W. G. Newhall, R. Mostafa, C. Dietrich, C. Anderson, K. Dietze, G. Joshi, and J. H. Reed, "Wideband air-to-ground radio channel measurements using an antenna array at 2 GHz for low-altitude operations," *IEEE Military Commun. Conf. (MILCOM)*, October 2003, vol. 2, pp. 1422-1427.
104. S. W. Kim, D. S. Ha, and J. H. Reed, "Minimum selection GSC and adaptive low-power rake combining scheme," *IEEE International Symposium Circuits Systems (ISCAS)*, May 2003.
105. M. A. Nizamuddin, P. H. Balister, W. H. Tranter, and J. H. Reed, "Nonlinear tapped delay line digital predistorter for power amplifiers with memory," *IEEE Wireless Commun. Networking Conf.*, March 2003.
106. W. Newhall and J. H. Reed, "A geometric air-to-ground radio channel model," *IEEE Military Commun. Conf. (MILCOM)*, October 2002, pp. 632-636.
107. B. Cheung, F. Alam, J. H. Reed, and B. D. Woerner, "New adaptive beamforming algorithm for OFDM systems," *14th International Conf. Wireless Commun. (Wireless)*, July 2002, pp. 71-75. (URSI Best Student Paper Award)
108. J. Hicks, J. Tsai, J. H. Reed, and W. H. Tranter, "Overloaded array processing with MMSE-SIC," *IEEE Veh. Technol. Conf. (VTC – Spring)*, May 2002, pp. 542-546.
109. S. Krishnamoorthy, C. R. Anderson, S. Srikanteswara, P. M. Robert, and J. H. Reed, "Background interference measurements at 2.45GHz in a hospital," *1st Student Research Symposium Virginia Tech Center Biomedical Engineering, Wake Forest University School Medicine*, May 2002.
110. M. C. Valenti, M. Robert, and J. H. Reed, "On the throughput of Bluetooth data transmissions," *IEEE Wireless Commun. Networking Conf. (WCN)*, March 2002, vol. 1, pp. 119-123.
111. W. Newhall and J. H. Reed, "A geometrically based radio channel model for air-to-ground communications," *Virginia Space Grant Consortium*, March 2002.
112. S. Srikanteswara, J. Neel, J. H. Reed, and P. Athanas, "Soft radio implementations 3G future high data rate systems," *IEEE Global Commun. Conf. (GLOBECOM)*, November 2001, vol. 6, pp. 3370-3374.
113. R. Mostafa, A. Hannan, J. H. Reed, and W. H. Tranter, "Narrowband transmit diversity measurements at the handset for an indoor environment," *ICICS*, accepted, not presented, October 2001.

114. J. Kim, Y. M. Vasavada, and J. H. Reed, "Spatio-temporal searcher structure for 3G W-CDMA smart antenna systems," *IEEE Veh. Technol. Conf. (VTC – Fall)*, October 2001, vol. 3, pp. 1635-1639.
115. J. Kim, K. Zahid, and J. H. Reed, "Performance evaluation of 3G W-CDMA smart antenna systems for rural area multi-path fading environments," *WPMC*, accepted, not presented, September 2001.
116. R. Gozali, R. Mostafa, R. Chembil Palat, S. Marikar, P. M. Robert, W. G. Newhall, C. Beaudette, S. A. Tsaikou, B. D. Woerner, and J. H. Reed, "Virginia tech space-time advanced radio," *IEEE Radio Wireless Symp. (RAWCON)*, August 2001, pp. 227-231.
117. P. Balister, M. Nizamuddin, M. Robert, W. H. Tranter, and J. H. Reed, "Role of signal envelope distribution in predicting the performance of a multicarrier communication system," *IEEE Radio Wireless Symp. (RAWCON)*, August 2001, pp. 245-248.
118. R. Gozali, S. Bayram, J. Tsai, B. D. Woerner, and J. H. Reed, "Interpolation based data-aided timing recovery scheme for multi-user CDMA receivers," *Wireless Conf.*, July 2001, pp. 544-548.
119. M. Robert and J. H. Reed, "Software design issues in networks with software-defined-radio nodes," *WETICE Conf.*, June 2001, pp. 55-59.
120. T. E. Biedka, J. H. Reed, and W. H. Tranter, "Mean convergence rate of a decision directed adaptive beamformer with Gaussian interference," *IEEE Sensor Array Multichannel Signal Processing Workshop (SAM)*, March 2000.
121. N. D. Tripathi, J. H. Reed, and H. F. VanLandingham, "Pattern classification based handoff using fuzzy logic and neural nets," *IEEE International Conf. Commun. (ICC)*, June 1998, section 48, paper 2.
122. S. K. Yao and J. H. Reed, "GMSK differential detectors with decision feedback in multipath and CCI channels," *IEEE Global Commun. Conf. (GLOBECOM)*, November 1996, pp. 1830-1834.
123. P. Petrus, T. S. Rappaport, and J. H. Reed, "Geometrically based statistical macrocell channel model for mobile environments," *IEEE Global Commun. Conf. (GLOBECOM)*, November 1996, pp. 1197-1201.
124. N. Mangalvedhe and J. H. Reed, "An Eigenstructure technique for soft synchronization of spread spectrum," *IEEE Conf. Acoustics, Speech Signal Processing*, May 1996, pp. 1751-1754.
125. P. Petrus, I. Howitt, and J. H. Reed, "Evaluation of outage probability due to co-channel interference in fading for an AMPS system with an ideal beamformer," *Wireless Conf.*, July 1996, pp. 29-40.
126. R. He and J. H. Reed, "AMPS interference rejection by exploiting the SAT information," *IEEE Personal, Indoor, Mobile Radio Commun. (PIMRC)*, September 1995, pp. 597-602.
127. P. Petrus and J. H. Reed, "Co-channel interference rejection for AMPS signals using spectral correlation properties and an adaptive array," *IEEE Veh. Technol. Conf. (VTC)*, July 1995, pp. 30-34.

128. P. Petrus and J. H. Reed, "Least squares CM adaptive array for co-channel interference rejection for AMPS and IS-54," *Wireless Conf.*, July 1995, pp. 7.41-7.47.
129. J. Cheng, P. Lemson, J. H. Reed, and I. Jacobs, "A dynamic range enhancement technique for fiber optic microcell radio systems," *IEEE Veh. Technol. Conf. (VTC)*, July 1995, pp. 774-778.
130. S. P. Neugebauer and J. H. Reed, "Prediction of maximal length pseudorandom sequences using neural networks" *Artificial Neural Networks Engineering (ANNIE)*, November 1994, pp. 675-680.
131. R. J. Holley and J. H. Reed, "Time dependent adaptive filters for interference cancellation in CDMA systems," *Workshop Cyclostationary Signal Processing*, August 1994.
132. Howitt, R. Vemuri, J. H. Reed, and T. C. Hsia, "Comparison of center estimation methods for RBF networks," *IMAC Conf.*, July 1994, pp. 1304-1306.
133. Howitt, R. Vemuri, J. H. Reed, and T. C. Hsia, "RBF growing algorithm applied to equalization and co-channel interference rejection problem," *IEEE World Congress Computational Intelligence/International Conf. Neural Networks*, June-July 1994, pp. 3571-3576.
134. T. Yang, J. H. Reed, and T. C. Hsia, "Spectral correlation Of BPSK and QPSK signals in a nonlinear channel With AM/AM and AM/PM conversions," *IEEE International Conf. Commun.*, pp. 627-632.
135. J. H. Reed, A. A. Quilici, and T. C. Hsia, "A frequency domain time-dependent adaptive filter for interference rejection," *IEEE Military Commun. Conf. (MILCOM)*, October 1988, pp. 391-397.
136. J. H. Reed and T. C. Hsia, "A technique for sorting and detecting signals in interference," *IEEE Military Commun. Conf. (MILCOM)*, October 1988, pp. 425-430.

Accepted on the basis of abstract

1. Garlapati, Shravan, Haris I. Volos, Teja Kuruganti, Michael R. Buehrer, and Jeffrey H. Reed. "PHY and MAC layer design of Hybrid Spread Spectrum based smart meter network." In Performance Computing and Communications Conference (IPCCC), 2012 IEEE 31st International, pp. 183-184. IEEE, 2012.
2. Garlapati, Shravan, Reza Monir Vaghefi, Michael R. Buehrer, and Jeffrey H. Reed. "Performance evaluation of Hybrid Spread Spectrum based Advanced smart Metering Infrastructure network with Multi-User Detection techniques in jamming channel." In Wireless Sensors and Sensor Networks (WiSNet), 2013 IEEE Topical Conference on, pp. 154-156. IEEE, 2013.
3. Roop L. Mahajan, Rolf Mueller, Jeff Reed, Christopher B. Williams, Naren Ramakrishnan, Thomas A. Campbell, "Cultivating Emerging and Black Swan Technologies", ASME 2012 International Mechanical Engineering Congress & Exposition, November 2012

4. Dietrich, C.B.; Wolfe, E.W.; Vanhoy, G.M., "Evaluation of multi-objective optimizers for cognitive radio using psychometric methods: Analysis using unidimensional and multidimensional Rasch models," Cognitive Radio Oriented Wireless Networks and Communications (CROWNCOM), 2012 7th International ICST Conference on , vol., no., pp.326,331, 18-20 June 2012C. Dietrich and J.H. Reed, "OSSIE SCA-based Open Source SDR," 2011 IEEE MTT Society's International Microwave Symposium, June 5-10, Baltimore, MD
5. M.Gadhiok, A.Amanna, M. Price, J.H. Reed, "Metacognition: Enhancing The Performance of a Cognitive radio," IEE CogSIMA Conference, Feb 22-24, 2011 Miami Beach, Florida
6. M Khedr, H. Shatila, J. Reed, "Adaptive Resource Management for Vague Environment Using Cognitive Radio", ICCST Conference, July 9-11, 2010 Changdu, China
7. H.Shatila, M. Khedr and J. Reed, "Adaptive Modulation and Coding for WiMAX Systmes with Vague Channel State Information using Cognitive Radio", SOECT 2010, Ottawa, Canada, July 2010
8. Amanna, J. H. Reed, "Survey of Cognitive Radio Architectures", IEEE Southeast Conference 2010, in Charlotte, NC, March 18-21, 2010.
9. F. Kragh, C. Dietrich, S.M. Hasan, J.H. Reed, D. L. Miller, S. H. Edwards, " Enhancements to Software Defined Radio Design Engineering Education", 2010 ASEE Southeast Section Conference, April 18-20, 2010 in Blacksburg, VA.
10. S.M. Hasan, R. Nealy, T. Briseboie, T.R. Newman, T. Bose, J.H. Reed, "Wideband RF Front End Design Considerations for Flexiable White Space Software Defined Radio" [Invited Paper] 2010 Radio and Wireless Symposium (RWS), New Orleans, LA, January 10 – 14, 2010.
11. X. Chen, S.M. Hasan, T. Bose, J.H.Reed, "Cross-Layer Resource Allocation for Wireless Computing Networks", 2010 Radio and Wireless Symposium (RWS), New Orleans, LA, January 10 – 14, 2010.
12. S.M. Hasan, R. Nealy, T Brisebois, T.R. Newman, T. Bose, and J.H. Reed, "Wideband RF Front End Design Considerations for a Flexible White Space Software Defined Radio" [invited paper] 2010 Radio and Wireless Symposium (RWS)" in New Orleans, LA, January 10-14, 2010
13. X.Chen, S.M. Hasan, T. Bose, and J.H. Reed, "Cross-Layer Resources Allocation for Wireless Distributed Computing Networks" 2010 Radio and Wireless Symposium (RWS)" in New Orleans, LA, January 10-14, 2010
14. M.Khedr, H. Shatila, J. Reed "Adaptive resource Management for Vague Environment Using Cognitive Radio", ICCSIT conference, July 9-11 in Chengdu, China
15. S. Hazem, K. Mohamed, and J. H. Reed, "Channel estimation for WiMAX systems using fuzzy logic cognitive radio" *WOCN Conf.*, April 2009.
16. C. Gonzales, C. Dietrich, and J. H. Reed, "Distributed SDR applications for distance learning," *SDR Forum*, October 2008.

17. J. Neel, S. Sayed, M. Carrick, C. Dietrich, and J. H. Reed, "PCET" a tool for rapidly estimating statistics of waveform components implemented on digital signal processors," *SDR Forum*, October 2008.
18. C. Dietrich, D. Kumaraswamy, S. B. Raghundandan, L. Lee, and J. H. Reed, "Open space radio: An open source implementation of STRS 1.01," *SDR Forum*, October 2008.
19. R. Farrell, A. Wyglinski, C. R. Anderson, J. H. Reed, P. Balister, C. Phelps, T. Tous, J. Gaeddert, C. Aguayo, S. Bilen, G. Nychis, J. Chapin, B. Farhang-Boroujeny, N. Pawari, and J. Schiel, "Rationale for clean slate radio architecture," submitted *SDR Forum*, October 2008.
20. J.-H. Kim, K. K. Bae, and J. H. Reed, "Transmit and receiver diversity in the uplink of DS/CDMA cellular systems," *IEEE Veh. Technol. Conf. (VTC Spring 2007)*, April 2007.
21. C. A. Gonzalez, F. Portelinha, and J. H. Reed, "Design and implementation of an SCA core framework for a DSP platform," *SDR Forum*, November 2006.
22. C. R. Anderson and J. H. Reed, "Development of and initial performance results for a software defined ultra wideband receiver," *SDR Forum 2006*, November 2006.
23. J. Neel, J. H. Reed, and C. A. Gonzalez, "Automated waveform partitioning and optimization for SCA waveforms," *SDR Forum*, November 2006.
24. S. M. Hasan, P. Balister, K. Lee, J. H. Reed, and S. Ellingson, "A LOW cost MULTI-band/MULTI-mode radio for public safety," *SDR Forum*, November 2006.
25. Y. Zhao, J. Gaeddert, K. K. Bae, and J. H. Reed, "Radio environment map-enabled situation-aware cognitive radio learning algorithms," *SDR Forum*, November 2006.
26. P. Balister, M. Robert, and J. H. Reed, "Impact of the use of COBRA for inter-component communication in SCA based radio," *SDR Forum*, November 2006.
27. R. Menon, R. M. Buehrer, and J. H. Reed, "Impact of exclusion region and spreading spectrum-sharing ad hoc networks," *Workshop Technol. Policy Accessing Spectrum (TAPAS)*, August 2006.
28. R. Chembil Palat, A. Annamalai, and J. H. Reed, "Node density and range improvement in cooperative networks using randomized space-time block coding with time synchronization errors," *4th IEEE Workshop Sensor Array Multichannel Processing (SAM)*, July 2006, pp. 466-470.
29. R. Chembil Palat, A. Annamalai, and J. H. Reed, "Probability of error analysis under arbitrary fading and power allocation for decode and forward cooperative communication," *IEEE Communication Theory Workshop (CTW)*, May 2006. (No printed proceedings available.)
30. R. Chembil Palat, J. Kim, J. S. Lee, D. S. Ha, C. Patterson, and J. H. Reed, "Reconfigurable modem architecture for CDMA based 3G handsets," *SDR Forum*, November 2005, pp. B119-B125.

31. R. Menon, R. M. Buehrer, and J. H. Reed, "Outage probability based comparison of underlay and overlay spectrum sharing techniques," *Dynamic Spectrum Access Networks, (DySPAN)*, November 2005, pp. 101-109.
32. Fehske, J. Gaeddert, and J. H. Reed, "A new approach to signal classification using spectrum correlation and neural networks," *Dynamic Spectrum Access Networks, (DySPAN)*, November 2005, pp. 144-150.
33. R. Chembil Palat, A. Annamalai, and J. H. Reed, "Cooperative relaying of ad-hoc ground networks using SWARM UAVS," *IEEE Military Commun. Conf. (MILCOM)*, October 2005. (Page numbers not available.)
34. J. Kim, K. K. Bae, A. Annamalai, and J. H. Reed, "The impact of transmit diversity on the Erlang capacity of reverberance link DS/CDMA system," *IEEE International Symposium Personal Indoor Mobile Radio Commun.(PIMRC)*, September 2005. (Proceedings on CD ROM only, no page numbers available.)
35. Y. Zhao, B. G. Agee, and J. H. Reed, "Simulation and measurements of microwave oven leakage for 802.11 WLAN interference managements," *IEEE International Symposium Microwave, Antenna, Propagation, EMC Technologies Wireless Commun. (MAPE)*, August 2005, pp. 1580-1583.
36. J. Neel, R. Menon, J. H. Reed, and A. B. MacKenzie, "Using game theory to analyze physical layer cognitive radio algorithms," *Conf. Economics, Technol., Policy Unlicensed Spectrum*, May 2005. (No proceedings available.)
37. R. Mostafa, P. Khanna, W. C. Chung, J. W. Heo, J. H. Reed, and D. S. Ha, "Performance evaluation of 2D rake algorithms for WCDMA-DL applications at the handset," *IEEE Radio Wireless Conf. (RAWCON)*, September 2004.
38. C. R. Anderson, S. Krishnamoorthy, C. G. Ranson, T. J. Lemon, W. G. Newhall, T. Kummetz, and J. H. Reed, "Antenna isolation, wideband multipath propagation measurements and interference mitigation for on-frequency repeaters," *IEEE SouthEastCon*, March 2004, pp. 110-114.
39. Y. Ahmed, J. H. Reed, W. H. Tranter, and R. M. Buehrer, "A model-based approach to demodulation of co-channel MSK signals," *IEEE Global Commun. Conf. (GLOBECOM)*, December 2003, pp. 2442-2446.
40. J. A. Neel, M. Robert, A. Hebbbar, R. Chembil Palat, J. H. Reed, S. Srikanteswara, R. Menon, and R. Kumar, "Critical technology challenges to the commercialization of software radio," *World Wireless Research Forum*, October 2003.
41. S. Krishnamoorthy, J. H. Reed, C. R. Anderson, P. M. Robert, and S. Srikanteswara, "Characterization of the 2.4 GHz ISM band electromagnetic interference in a hospital environment," *25th Annual IEEE Conf. IEEE Engineering Medicine Biology Society*, September 2003.
42. R. Mostafa, K. Dietze, R. B. Ertel, C. Dietrich, J. H. Reed, and W. L. Stutzman, "Wideband characterization of wireless channels for smart antenna Applications," *IEEE Radio Wireless Conf. (RAWCON)*, August 2003, pp. 103-106.

43. R. Mostafa, M. Robert, and J. H. Reed, "Reduced complexity MIMO processing for WLAN (IEEE 802.11b) applications," *IEEE Radio Wireless Conf. (RAWCON)*, August 2003, pp. 171-174.
44. S. W. Kim, D. S. Ha, and J. H. Reed, "Minimum selection GSC and adaptive low-power rake combining scheme," *International Symposium Circuits Systems (ISCAS)*, May 2003, pp. IV-357—IV-360.
45. F. Alam, R. Mostafa, B. Cheung, B. D. Woerner, and J. H. Reed, "Frequency domain beamforming for OFDM system in practical multipath channel," *ICECE Conf.*, December 2002.
46. S. Srikanteswara, J. Neel, J. H. Reed, and S. Sayed, "Resource allocation in software radios using CCMs based on the SCA," *SDR Forum*, Nov. 2002.
47. J. Neel, J. H. Reed, and R. P. Gilles, "The role of game theory in the analysis of software radio networks," *SDR Forum*, November 2002.
48. R. Gozali, R. Mostafa, R. Chembil Palat, P. M. Robert, W. G. Newhall, B. D. Woerner, and J. H. Reed, "MIMO channel capacity measurements using the Virginia Tech space-time advanced radio (VT-STAR)," *IEEE Veh. Technol. Conf. (VTC Fall)*, September 2002, pp. 884-888.
49. J. E. Hicks, J. Tsai, J. H. Reed, W. H. Tranter, and B. D. Woerner, "The performance of linear space-time processing in overloaded environments," *14th International Conf. Wireless Commun. (Wireless)*, July 2002, pp. 83-89.
50. J. Neel, M. Buehrer, J. H. Reed, and R. P. Gilles, "Game theoretic analysis of a network of cognitive radios," *IEEE Midwest Symposium Circuits Systems*, August 2002, pp. 409-412.
51. M. Robert, L. A. DaSilva, and J. H. Reed, "Statistical back-off method for minimizing interference among distinct net technologies," *IEEE Veh. Technol. Conf. (VTC Fall)*, September 2002, pp. 1725-1729.
52. S. Krishnamoorthy, M. Robert, S. Srikanteswara, M. C. Valenti, C. R. Anderson, and J. H. Reed, "Channel frame error rate for Bluetooth in the presence of microwave oven," *IEEE Veh. Technol. Conf. (VTC Fall)*, September 2002, pp. 927-931.
53. W.G. Newhall, R. Mostafa, K. Dietze, J. H. Reed, and W. L. Stutzman, "Measurement of multipath signal component amplitude correlation coefficients versus propagation delay," *IEEE Radio Wireless Conf. (RAWCON)*, August 2002, pp. 133-136.
54. S. Srikanteswara, J. Neel, J. H. Reed, and P. Athanas, "Designing soft radios for high-data rate Systems and integrated global services," *35th Asilomar Conf.*, November 2001, vol. 1, pp. 51-55.
55. F. Alam, K. Zahid, B. D. Woerner, and J. H. Reed, "Performance comparison between pilot symbol assisted and blind beamformer-rake receivers at the reverse link of third generation CDMA system," *IEEE Veh. Technol. Conf. (VTC Fall)*, October 2001, vol. 1, pp. 353-357.

56. Y. M. Vasavada, J. Kim, and J. H. Reed, "Receiver structure for W-CDMA space-time processing," *IEEE Veh. Technol. Conf. (VTC Fall)*, October 2001, vol. 4, pp. 1965-1969.
57. R. Mostafa, K. Dietze, R. Chembil Palat, W. L. Stutzman, and J. H. Reed, "Demonstration of real-time wideband transmit diversity at the handset in the indoor wireless channel," *IEEE Veh. Technol. Conf. (VTC Fall)*, October 2001, vol. 4, pp. 2072-2076.
58. T. Beidka, J. H. Reed, and W. H. Tranter, "Mean convergence rate of a decision directed adaptive beamformer with Gaussian interference," *Sensor Array Multichannel Signal Processing Workshop, 2002*, pp. 68-72.
59. S. Srikanteswara, J. H. Reed, and P. M. Athanas, "Implementation of a reconfigurable soft radio using the layered radio architecture," *34th Asilomar Conf. Signals, Systems, Computers*, 2000, pp. 360-364.
60. Y. M. Vasavada, T. E. Biedka, and J. H. Reed, "Code gated algorithm: A blind adaptive antenna array beamforming scheme for the wideband CDMA system," *34th Asilomar Conf. Signals, Systems, Computers*, 2000, pp. 1397-1402.
61. T. E. Biedka, J. H. Reed, and W. H. Tranter, "Statistics of blind signature estimators," *34th Asilomar Conf. Signals, Systems, Computers*, 2000, pp. 847-850.
62. S. Bayram, J. Hicks, R. J. Boyle, and J. H. Reed, "Overloaded array processing in wireless airborne communication systems," *IEEE Military Commun. Conf. (MILCOM)*, October 2000. (Proceedings on CD ROM.)
63. S. Bayram, J. Hicks, R. J. Boyle, and J. H. Reed, "Joint maximum likelihood approach in overloaded array processing," *IEEE Veh. Technol. Conf. (VTC Fall)*, September 2000, pp. 394-400.
64. S. Srikanteswara, M. Hosemann, J. H. Reed, and P. M. Athanas, "Design and implementation of a completely reconfigurable soft radio," *IEEE Radio Wireless Conf. (RAWCON)*, September 2000, pp. 7-11.
65. M. Hosemann, S. Srikanteswara, and J. H. Reed, "A code tracking technique for direct sequence spread spectrum using adaptive filtering," *IEEE Radio Wireless Conf. (RAWCON)*, September 2000, pp. 25-28.
66. W. L. Stutzman, J. H. Reed, C. B. Dietrich, B. Kim, and D. G. Sweeney, "Recent results from smart antenna experiments: Base station and handheld terminals," *IEEE Radio Wireless Conf. (RAWCON)*, September 2000.
67. T. Biedka, C. Dietrich, K. Dietze, R. Ertel, B. Kim, R. Mostafa, W. Newhall, U. Ringel, J. H. Reed, D. Sweeney, W. L. Stutzman, R. J. Boyle, and A. Tikku, "Smart antenna for handsets," *DSPS Fest*, August 2000. (Proceedings not yet published.)
68. R. Mostafa, N. D. Tripathi and J. H. Reed, "DSP Implementation of Communication Systems," *DSPS Fest 2000*, August 2000. (Proceedings not yet published.)
69. S. Bayram, J. Hicks, R. J. Boyle, and J. H. Reed, "Overloaded array processing: Non-linear vs. linear signal extraction techniques," *12th Annual International Conf. Wireless Commun. (Wireless)*, July 2000, vol. 2, pp. 492-498.

70. K. A. Phillips, J. H. Reed, and W. H. Tranter, "Minimum BER adaptive filtering," *IEEE International Conf. Commun. (ICC)*, June 2000, pp. 310-321.
71. B. Kim, W. L. Stutzman, D. G. Sweeney, and J. H. Reed, "Space, polarization, and angle diversity for cellular base stations operating in urban environments," *IEEE Antennas Propagation International Symposium*, Salt Lake City, UT, July 16-21, 2000, pp. 940-943.
72. B. Kim, W. L. Stutzman, D. G. Sweeney, and J. H. Reed, "Initial results from an experimental cellular base station with space, polarization, and angle diversity operating in urban environments," *10th Virginia Tech/MPRG Symposium Wireless Pers. Commun.*, Blacksburg, VA, June 14-16, 2000.
73. P. M. Robert, A. Darwish, and J. H. Reed, "Fast bit error generation for the simulation of MPEG-2 transmissions in wireless systems," *IEEE Wireless Commun. Networking Conf. (WCNC)*, September 1999.
74. P. M. Robert, A. Darwish, and J. H. Reed, "MPEG video quality prediction in a wireless system," *IEEE Veh. Technol. Conf. (VTC)*, May 1999, vol. 2, pp. 1490-1495.
75. N. D. Tripathi, J. H. Reed, and H. F. VanLandingham, "Fuzzy logic based adaptive handoff algorithms for microcellular systems," *IEEE Veh. Technol. Conf. (VTC)*, May 1999, pp. 1419-1424.
76. N. D. Tripathi, J. H. Reed, and H. F. VanLandingham, "Adaptive handoff algorithms for cellular overlay systems using fuzzy logic," *IEEE Veh. Technol. Conf. (VTC)*, May 1999, vol. 2, pp. 1413-1418.
77. R. B. Ertel, Z. Hu, and J. H. Reed, "Antenna array hardware amplitude and phase compensation using baseband antenna array outputs," *IEEE Veh. Technol. Conf. (VTC)*, May 1999, pp. 1759-1763.
78. P. M. Robert, A. Darwish, and J. H. Reed, "Effect of error distribution in channel coding failure on MPEG wireless transmission," *Electronic Imaging Conf. (SPIE)*, January 1999.
79. S. Srikanteswara, P. Athanas, J. H. Reed, and W. H. Tranter, "Configurable computing for communication systems," *International Microelectronics Packaging Society (IMAPS)*, November 1998.
80. N. D. Tripathi, J. H. Reed, and H. F. VanLandingham, "Pattern classification based handoff using fuzzy logic and neural nets," *IEEE International Conf. Commun. (ICC)*, June 1998, section 48, paper 2.
81. R. B. Ertel and J. H. Reed, "Impact of path loss on the Doppler spectrum for the geometrically based single bounce vector channel models," *IEEE Veh. Technol. Conf. (VTC)*, May 1998, vol. 1, pp. 586-590.
82. N. D. Tripathi, J. H. Reed, and H. F. VanLandingham, "An adaptive direction biased fuzzy handoff algorithm with unified handoff selection criterion," *IEEE Veh. Technol. Conf. (VTC)*, May 1998, vol. 1, pp. 127-131.

83. N. D. Tripathi, J. H. Reed, and H. VanLandingham, "An adaptive handoff algorithm using neural encoded fuzzy logic system," *Annie Conf.*, November 1997.
84. J. H. Reed, R. Ertel, P. Cardieri, and T. S. Rappaport, "Vector channel models," *Stanford Workshop Smart Antennas*, July 1997. (Invited presentation.)
85. Z. Rong, T. S. Rappaport, P. Petrus, and J. H. Reed, "Simulation of multi-target adaptive array algorithms for CDMA system," *IEEE Veh. Technol. Conf. (VTC)*, May 1997. (Also *IEEE Smart Antennas: Adaptive Arrays, Algorithms, Wireless Position Location*, 1998, pp. 321-325).
86. N. Zecevic and J. H. Reed, "Blind adaptation algorithms for direct-sequence spread-spectrum CDMA single-user detection," *IEEE Veh. Technol. Conf. (VTC)*, May 1997.
87. N. Mangalvedhe and J. H. Reed, "Blind CDMA interference rejection in multipath channels," *IEEE Veh. Technol. Conf. (VTC)*, May 1997.
88. W. C. Ting and J. H. Reed, "Interference rejection for AMPS using time dependent adaptive filter and model-based demodulation," *IEEE Veh. Technol. Conf. (VTC)*, May 1997.
89. J. H. Reed, "Cell average carrier to interference coverage improvement by using DSP interference rejection techniques," *IEEE Veh. Technol. Conf. (VTC)*, May 1997.
90. D. G. Sweeney and J. H. Reed, "License free wireless operation," *SoutheastCon*, April 1997.
91. T. E. Biedka, B. D. Woerner, and J. H. Reed, "Direction finding methods for CDMA systems," *Asilomar Conf.*, November 1996, pp. 637-641.
92. T. E. Biedka, W. H. Tranter, and J. H. Reed, "Convergence analysis of the least squares constant modulus algorithm," *Asilomar Conf.*, November 1996, pp. 541-545.
93. N. R. Mangalvedhe and J. H. Reed, "Analysis of an eigenstructure technique for DSSS Synchronization," *Virginia Tech's 6th Annual Symposium Wireless Pers. Commun.*, June 1996. (Also *Wireless Personal Communications: The Evolution of PCS*, Kluwer Press, 1996.)
94. B. Tranter, T. S. Rappaport, B. D. Woerner, J. H. Reed, and D. Krizman, "The role of simulation in teaching of communications," *Frontiers Education Conf.*, November 1996, paper 7a1.1.
95. T. S. Rappaport, W. H. Tranter, J. H. Reed, B. D. Woerner, and D. M. Krizman, "Curriculum innovation for simulation and design of wireless communications systems," *American Society Engineering Education Conf.*, June 1996. (CD ROM version only, location 162644ms.pdf.)
96. F. S. Cheng, P. Lemson, J. H. Reed, and I. Jacobs, "The dynamic range enhancement technique applied to an AMPS and CDMA cellular environment," *IEEE Veh. Technol. Conf. (VTC)*, April 1996, pp. 1057-1059.

97. M. Welborn and J. H. Reed, "Co-channel interference rejection using a model-based demodulator for AMPS and NAMPS," *IEEE Veh. Technol. Conf. (VTC)*, April 1996, pp. 1312-1316.
98. M. Majmudar, J. H. Reed, and P. Petrus, "Interference rejection for IS-54 signals," *IEEE Veh. Technol. Conf. (VTC)*, April 1996, pp. 1321-1325.
99. R. He and J. H. Reed, "A robust co-channel interference rejection technique for current mobile phone system," *IEEE Veh. Technol. Conf. (VTC)*, April 1996, pp. 1007-1011.
100. T. E. Biedka, L. Mili, and J. H. Reed, "Robust estimation of the cyclic correlation in contaminated Gaussian noise," *Asilomar Conf. Signals, Systems Computers*, November 1995, pp. 511-515.
101. R. He and J. H. Reed, "Spectral correlation of AMPS signals and its application to interference rejection," *IEEE Military Commun. Conf. (MILCOM)*, October 1994, pp. 1007-1011 (Invited paper.)
102. V. Aue and J. H. Reed, "An interference robust CDMA demodulator that uses spectral correlation properties," *IEEE Veh. Technol. Conf. (VTC)*, June 1994, pp. 563-567.
103. J. D. Laster and J. H. Reed, "A survey of adaptive single channel interference rejection techniques for wireless communications," *Virginia Tech's Fourth Annual Symposium Wireless Pers. Commun.*, June 1994, pp. 2.1-2.25. (Also *Wireless Personal Communications: Research Developments*, Kluwer Press, 1995.)
104. Howitt, J. H. Reed, V. Vemuri, and T. C. Hsia, "Recent developments in applying neural nets to equalization and interference rejection," *Virginia Tech's 3rd Annual Symposium Wireless Pers. Commun.*, June 1993, pp. 1.1-1.12. (Also *Wireless Personal Communications: Trends and Challenges*, Kluwer Press, 1994.)
105. B. G. Agee, K. Cohen, J. H. Reed, and T. C. Hsia, "Simulation performance of a blind adaptive array for a realistic mobile channel," *IEEE Veh. Technol. Conf. (VTC)*, pp. 97-100.
106. J. H. Reed and B.G. Agee, "A technique for instantaneous tracking of frequency agile signals in the presence of spectrally correlated interference," *Asilomar Conf. Signals, Systems, Computers*, 1992, pp. 1065-1071.
107. J. H. Reed and T. C. Hsia, "The theoretical performance of time-dependent adaptive filters for interference rejection," *IEEE Military Commun. Conf. (MILCOM)*, pp. 961-965.
108. R. Mendoza, J. H. Reed, T. C. Hsia, and B. G. Agee, "Interference rejection using a time-dependent constant modulus algorithm," *Asilomar Conf. Signals, Systems Computers*, 1989, pp. 273-278.
109. J. H. Reed, C. D. Greene, and T. C. Hsia, "Demodulation of a direct sequence spread-spectrum signal using an optimal time-dependent receiver," *IEEE Military Commun. Conf. (MILCOM)*, October 1989, pp. 657-662.
110. C. D. Greene, J. H. Reed, and T. C. Hsia, "An optimal receiver using a time-dependent adaptive filter," *IEEE Military Commun. Conf. (MILCOM)*, October 1989, pp. 650-666.

111. R. Mendoza, J. H. Reed, and T. C. Hsia, "Interference rejection using a hybrid constant modulus algorithm and spectral correlation discriminator," *IEEE Military Commun. Conf. (MILCOM)*, October 1989, pp. 491-497.
112. J. H. Reed and T. C. Hsia, "Decision-directed demodulation," *IEEE Conf. Decision Control*, 1985, pp. 1286-1287.
113. J. H. Reed and T. C. Hsia, "Application of adaptive short-term correlation algorithms to interference rejection," *Asilomar Conf. Signals, Systems, Computers*, 1985, pp. 441-445.
114. J. H. Reed and T. C. Hsia, "A technique for separating short and long-duration signals and its application to interference rejection," *4th Yale Workshop Applications Adaptive System Theory*, Yale University, 1985.

Papers, Talks, & Lectures Presented at Professional Meetings:

1. Security Issues for public safety radio, Keynote Address, Wireless Innovation Forum, Jan 2013.
2. Research Ideas, WSRD Workshop, Boulder, CO. July 2012. Mid Atlantic Broadband Corp. "Initiatives in Wireless Communications, April 2011
3. 66th Annual Meeting of the ORAU Council of Sponsoring Institutions, "The Hume Center", Oak Ridge TN, March 2011
4. Under invitation OSTP, "Testbed & Technology Platforms," White House Conference Center, Truman Room, Washington, DC January, 2011
5. Speaker, Oak Ridge National Laboratory Board of Governors, Oak Ridge, TN May 2010, "The Hume Center for National Security and Technology"
6. Keynote Presentation, "The Future of Cognitive Radio," Univ of Texas and Austin Technology Incubator. A group of faculty and VCs.
7. Invited Presentation, "The Second Wave of Wireless: A New Wave of Disruptive Technology," Atlantic Council (DC think-tank) to help inform international decision makers, Oct. 2010.
8. Cognitive Wireless Networking (CoRoNet), Keynote Speaker, Chicago, Illinois, September 20, 2010
9. The Ted & Karyn Hume Center Inauguration Reception and Board Meeting, Arlington, VA August 18, 2010.
10. NSF EARS Workshop, "Workshop on Enhancing Access To The Radio Spectrum", August 2010, Arlington, VA
11. Invited talk, "Cognitive Radio Research at VT," ISART, NTIA, July 2010.
12. DoD Technical Exchange Meeting at the Finnish Embassy under the aegis of the Secretary of Defense, Washington D.C. May 2010

13. Speaker, Oak Ridge National Laboratory Board of the Governors, May 2010
14. JASON, an independent group of scientists which advises the United States Government on matters of science and technology - San Diego, CA May 2010
15. Dr. Jeffrey Reed and Dr. Nishith Tripathi, *Wireless Net Neutrality Regulation: A Response to Afflerbach and DeHaven, March 2010*, submitted to the FCC.
16. Jeffrey H. Reed & Nishith D. Tripathi, *The Application of Network Neutrality Regulations to Wireless Systems: A Mission Infeasible*, submitted to the FCC, Jan. 2010
17. Note the two reports above are *responses to the FCC Notice of Proposed Rule Making on Network Neutrality (a highly controversial subject that poses a major threat to the US wireless industry)*
18. "The Nexus of Security and Technological Leadership, Deemed Export Rule Recommendations and Zero-based Methods to Identify Technologies that Require Deemed Export Control', Submitted to the Security of Commerce by the Emerging Technologies and Research Advisory Committee, A Federal Advisory Committee Appointed by the Secretary of Commerce To examine EARS Regulations. 2009. *Note current EARS regulations currently represent a major challenge to US industry and academia for engaging international personnel in research and this committee addressed this challenge.*
19. Institute for Defense and Government Analysis Conference – Security Issues in Cognitive Radio, 2010.
20. Army Research Lab Seminar, Sept. 2009
21. Lectured VT-MENA in Alexandria, Egypt Nov. 2009
22. Technical seminar at Cairo University, Nov. 2009
23. Presented to NTIA, the telecom regulatory authority in Egypt, Nov. 2009
24. Korean US Communications Technology Symposium, July 2009
25. Finnish Embassy – US Military Collaboration with Finnish Government, March 10-11, 2008
26. Institute for Defense and Government Analysis Conference -- VT's Cognitive Radio and Security Research, March 2009
27. J. H. Reed, IEEE presentation to the IEEE San Diego Section, April 7, 2009 San Diego, CA.
28. J. H. Reed, "Distributed computing in collaborative software radio," presented to the Office of Naval Research, May 1, 2007.
29. J.H. Reed, Keynote Speaker at the *Communications Technology Program Review, Planning Assessment Meeting*, "Distributed computing for collaborative software defined radio," Naval Research Laboratory, May 2007.

30. J. H. Reed, "Issues in cognitive wireless networks," talk presented at the *Intel Research Forum Seminar Series*, Portland, OR, March 28, 2007.
31. J. H. Reed, "Issues in cognitive wireless networks," talk presented at NIST, March 2, 2007.
32. J. H. Reed, "Understanding the issues in software defined cognitive radios," seminar presented at the University of Pennsylvania, October 16, 2006.
33. J. H. Reed, "Issues in cognitive wireless networks," talk presented at the *IEEE Workshop Networking Technologies Software Defined Radio (SDR) Networks*, (held in conjunction with *SECON*), Reston, VA, September 25, 2006.
34. J. H. Reed, "Applications of Markov modeling to cognitive radio," presented at the *SASDCRT Conf.*, Naval Post Graduate School, Monterey, CA, September 12-13, 2006.
35. J. H. Reed, "Understanding the issues in software defined cognitive radios," seminar presented at Clemson University, SC, July 21, 2006.
36. J. H. Reed, "Understanding the issues in software defined cognitive radios," seminar presented at Kyung Hee University, Korea, June 12, 2006.
37. J. H. Reed, "Open architecture bridging the gap in emergency communications," guest speaker at the *International Wireless Communications Expo – IWCE Conf. Tektronix Symposium*, Las Vegas, NV, May 19, 2006.
38. J. H. Reed, "An introduction to cognitive radio and some research trends in cognitive radios," talk presented at *ETRI Cognitive Radio Workshop*, Seoul, Korea, April 2006.
39. J. H. Reed, S. Srikanteswara, and J. A. Neel, "Design choices for software radios," DVD tutorial. Available: <http://sdrforum.org/store.html>
40. Presentation titled "Software radio: The key for enabling 4G wireless networks," at the *International Forum - 4th Generation Mobile Commun.*, Centre for Telecommunications Research, May 2003.
41. J. H. Reed, "Key challenges in the design on software radios," workshop presented at *IDGA Software Radio Conf.*, Alexandria, Va., February 23, 2004.
42. J. H. Reed, "Issues in software radios," presented at Microsoft, Seattle, WA, March 3, 2003.
43. J. H. Reed, "Wireless convergence paradox," presented at *Samsung Telecom Forum*, Seoul, Korea, March 16-23, 2003.
44. W. H. Tranter, J. H. Reed, D. S. Ha, D. McKinstry, R. M. Buehrer, and J. Hicks, "High capacity communications using overloaded array," presented at *COMMTEC*, Chantilly, VA, September 16-20, 2002.
45. R. M. Buehrer and J. H. Reed, "Robust ad-hoc, short-range wireless networks for tracking and monitoring devices," presented to the Marine Corp., April 2002.

46. J. H. Reed, "Overloaded array processing with spatially reduced search joint detection," presented at the Dresden University of Technology, September 24, 2001.
47. J. H. Reed, Invited lecture series to several Korean companies, compliments of Samsung Advanced Institute of Technologies. The list of companies included: Samsung, LGIC, and ETRI. Spring 2000.
48. J. H. Reed, "The future of wireless," invited talk, Atlantic City, NJ, November 15, 1999.
49. J. H. Reed, "Software radios," *Motorola Futures Forum*, invited talk to corporate strategists, Phoenix, AZ, November 8, 1999.
50. P. Robert and J. H. Reed, "Digital video transmissions in a wireless system," *9th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1997. (Poster session.)
51. M. Hosemann and J. H. Reed, "Synchronization techniques for spread spectrum signals," *8th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1998. (Poster session.)
52. S. Srikanteswara and J. H. Reed, "Development of a software radio architecture using reconfigurable computing," *8th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1998. (Poster session.)
53. J. Hicks, P. Roy, J. Tilki, L. Beex, J. H. Reed, and W. Farley, "Simulation tool for speech recognition over wireless," *8th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1998. (Poster session.)
54. R. Ertel and J. H. Reed, "Optimum SINR antenna array performance analysis," *8th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1998. (Poster session.)
55. R. Banerjee, B. D. Woerner and J. H. Reed, "Case studies in software radios," *8th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1998. (Poster session.)
56. P. M. Robert, A. M. Darwish, and J. H. Reed, "Fast bit error generation for the simulation of MPEG-2 transmissions in wireless systems," *IEEE Wireless Commun. Networking Conf.*, September 21-24, 1999. (Invited paper; proceedings on CD Rom.)
57. J. H. Reed and S. Srikanteswara, "Software radio architecture for a reconfigurable computing platform," *IEEE Commun. Theory Workshop*, Aptos, CA, May 23-26, 1999.
58. R. Ertel, Z. Hu and J. H. Reed, "Antenna array vector channel modeling and data collection system," *8th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1998. (Poster session.)
59. P. M. Robert and J. H. Reed, "Digital video transmissions in a wireless system," *8th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1998. (Poster session.)
60. S. Swanchara, S. Srikanteswara, P. Athanas, and J. H. Reed, "Implementation of a multiuser receiver on a reconfigurable computing platform," *8th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1998. (Poster session.)
61. Maheshwara, et al., "Reconfigurable software radio," *8th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1998. (Poster session.)

62. K. Phillips and J. H. Reed, "PDF estimation," *8th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1998. (Poster session.)
63. N. Mangalvedhe and J. H. Reed, "Performance of reduced complexity algorithms in adaptive CDMA receivers," *8th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1998. (Poster session.)
64. R. Mostafa and J. H. Reed, "Study of smart antenna as an interference rejection technique for the handset," *8th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1998. (Poster session.)
65. N. Mangalvedhe and J. H. Reed, "Adaptive receivers for multi-rate DS-CDMA systems," *8th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1998. (Poster session.)
66. J. H. Reed and B. D. Woerner, "Analog to digital conversion and digital signal synthesis for software radios," half-day tutorial presented at the *IEEE 9th International Symposium Personal, Indoor, Mobile Radio Commun.*, Boston, MA, September 13-16, 1998. (Invited tutorial.)
67. J. H. Reed, "The software radio: Modern radio engineering," Dresden University of Technology Guest Lecture, Dresden, Germany, November 25, 1997.
68. J. H. Reed, "Adaptive antenna arrays," Dresden University of Technology Guest Lecture, Dresden, Germany, November 26, 1997.
69. J. H. Reed, "Overview of fundamental wireless systems in today's telecommunications technology," *46th Annual International Wire Cable Symposium*, Philadelphia, PA, November 17-20, 1997. (Invited tutorial.)
70. J. H. Reed and R. D. James, "Position location: Overview and business opportunities," *Wireless Opportunities Workshop*, Roanoke, VA, October 22-23, 1997.
71. R. Ertel and J. H. Reed, "Geometrically based spatial channel models," *7th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1997. (Poster session.)
72. A. Hannan and J. H. Reed, "GloMo radio API (application program interface)," *7th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1997. (Poster session.)
73. S. Swanchara, J. H. Reed, and P. Athanas, "Design and implementation of the GloMo multiuser receiver on a reconfigurable computing platform," *7th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1997. (Poster session.)
74. N. D. Tripathi, J. H. Reed, and H. VanLandingham, "High performance handoff algorithms using fuzzy logic and neural networks," *7th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1997. (Poster session.)
75. D. Breslin and J. H. Reed, "Multi-sensor testbed hardware development at the mobile and portable radio research group," *7th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1997. (Poster session.)

76. N. Mangalvedhe and J. H. Reed, "Blind CDMA interference rejection in multipath channels," *7th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1997. (Poster session.)
77. K. Phillips, J. Laster, and J. H. Reed "Adaptive signal processing by bit error rate (BER) estimation," *7th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1997. (Poster session.)
78. T. S. Rappaport, J. H. Reed, and T. E. Biedka, "Position location & E-911: Techniques for wireless systems," *IEEE International Conf. Universal Pers. Commun.*, Cambridge, MA, October 1, 1996. (Invited tutorial.)
79. N. Tripathi and J. H. Reed, "DSP implementation of communications systems: An NSF sponsored curriculum development initiative," *6th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1996. (Poster session.)
80. B. Fox, G. Aliftiras, I. Howitt, J. H. Reed, and B. D. Woerner, "Flexible hardware architectures for multimode wireless handsets," *Sixth 6th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1996. (Poster session.)
81. P. Petrus and J. H. Reed, "Geometrically based statistical single bounce macrocell channel model for mobile environments," *6th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1996. (Poster session; also in *IEEE Smart Antennas: Adaptive Arrays, Algorithms, & Wireless Position Location*, 1998, pp. 483-487.)
82. GloMo team, "GloMo adaptive antenna array research," *6th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1996. (Poster session.)
83. GloMo team, "GloMo mobile user research," *6th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1996. (Poster session.)
84. J. D. Laster and J. H. Reed, "Improved GMSK demodulation using non-coherent receiver diversity," *Sixth 6th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1996. (Poster session.)
85. K. Khan, J. H. Reed, and I. Howitt, "Interference mitigation in AMPS/NAMPS and CMP using artificial neural networks," *6th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1996. (Poster session.)
86. N. Tripathi, J. H. Reed, and H. VanLandingham, "Neural net & fuzzy logic approaches to handoffs in cellular systems," *6th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1996. (Poster session.)
87. K. Saldanha and J. H. Reed, "Performance evaluation of an AMPS digital base station with automatic gain control," *6th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1996. (Poster session.)
88. R. He and J. H. Reed, "System capacity improvement by using DSP interference rejection techniques," *6th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1996. (Poster session.)

89. B. D. Woerner, T. S. Rappaport, and J. H. Reed, "Improved spectral efficiency for CDMA systems," *Wireless Technology Conf. Exposition Proceedings*, Stamford, CT, September 1995.
90. P. Petrus and J. H. Reed, "New blind multichannel filtering techniques," *5th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1995. (Poster session.)
91. N. Zecevic and J. H. Reed, "Comparative study of adaptive CDMA interference rejection techniques," *5th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1995. (Poster session.)
92. M. Majmundar and J. H. Reed, "Interference rejection for IS-54," *5th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1995. (Poster session.)
93. D. Bailey and J. H. Reed, "MPRG: Signal processing and communications laboratory," *5th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1995. (Poster session.)
94. R. He and J. H. Reed, "Co-channel interference for AMPS and NAMPS signals," *5th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1995. (Poster session.)
95. N. Mangalvedhe and J. H. Reed, "An Eigenstructure technique for soft synchronization of DSSS signals," *5th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1995. (Poster session.)
96. M. Welborn and J. H. Reed, "Interference rejection using model-based spectral estimation," *5th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1995. (Poster session.)
97. A. Amanna, R. James, and J. H. Reed, "Communications on the smart road," *5th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1995. (Poster session.)
98. F. Dominique and J. H. Reed, "Development of a frequency hopping system for the 902-928 MHz ISM band," *5th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1995. (Poster session.)
99. S. Elson and J. H. Reed, "Modeling CDPD," *5th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1995. (Poster session.)
100. P. Petrus, F. Dominique, and J. H. Reed, "Spectral redundancy exploitation in narrowband interference rejection for a PN-BPSK system," *5th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1995. (Poster session.)
101. F. Cheng and J. H. Reed, "Dynamic range enhancement techniques for RF and fiber optic interface," *5th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1995. (Poster session.)
102. P. Petrus and J. H. Reed, "Blind adaptive arrays for mobile communications," *4th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1994. (Poster session.)
103. R. He and J. H. Reed, "Spectral correlation of AMPS signals with applications to interference rejection," *4th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1994. (Poster session.)

104. R. Zheng and J. H. Reed, "System modeling and interference rejection for spread spectrum CDMA automatic vehicle monitoring systems," *4th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1994. (Poster session.)
105. N. Mangalvedhe and J. H. Reed, "An eigenstructure technique for soft spread spectrum synchronization," *4th Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1994. (Poster session.)
106. R. Holley and J. H. Reed, "Time-dependent filters For CDMA interference rejection," *3rd Annual Symposium Wireless Pers. Commun.*, Virginia Tech, June 1993. (Poster session.)

Technical Reports:

1. Y. Zhao, "Enabling cognitive radios through radio environment maps," [MPRG-TR-07-](#) Ph.D. dissertation, May 2007.
2. R. Menon and J. H. Reed, "Interference avoidance based underlay techniques for dynamic spectrum sharing," [MPRG-TR-07-](#), Ph.D. dissertation, April 2007.
3. J.-H. Kim and J. H. Reed, "On the impact of MIMO implementations on cellular networks: An analytical Approach from a system perspective," [MPRG-TR-07-](#), Ph.D. dissertation, March 2007.
4. R. Chembil Palat and J. H. Reed, "Performance analysis of cooperative communications for wireless networks," [MPRG-TR-06-](#), Ph.D. dissertation, December 2006.
5. J. O. Neel and J. H. Reed, "Analysis and design of cognitive radio networks and distributed radio resources management in algorithms," [MPRG-TR-06-14](#), Ph.D. Dissertation, September 2006.
6. C. R. Anderson and J. H. Reed, "A software defined ultra wideband transceiver testbed for communications, ranging, and imaging," [MPRG-TR-06-13](#), Ph.D. dissertation, September 2006.
7. C. R. Anderson, S. Venkatesh, D. Agarwal, R. Michael Buehrer, P. Athanas, and J. H. Reed, "Time interleaved sampling of impulse ultra wideband signals: Design challenges, analysis, and results," [MPRG-TR-06-12](#), technical report, August 2006.
8. J.-H. Kim and J. H. Reed, "Efficacy of transmit smart antenna at mobile station in cellular networks," [MPRG-TR-06-09](#), Ph.D. preliminary, May 2006.
9. J. A. DePriest and J. H. Reed, "A practical approach to rapid prototyping of SCA waveforms," [MPRG-TR-06-06](#), M.S. thesis, April 2006.
10. B. M. Donlan, R. M. Buehrer, and J. H. Reed, "Ultra-wideband narrowband interference cancellation and channel modeling for communications," [MPRG-TR-05-02](#), M.S. thesis, January 2005.
11. S. Vasudevan and J. H. Reed, "A simulator for analyzing the throughput of IEEE 802.11b wireless LAN systems," [MPRG-TR-05-01](#), M.S. thesis, January 2005.

12. A. M. Hebbbar and J. H. Reed, "Empirical approach for rate selection in MIMO OFDM," MPRG-TR-04-11, M.S. thesis, December 2004.
13. C. R. Anderson, A. M. Orndorff, R. M. Buehrer, and J. H. Reed, "An introduction and overview of an impulse-radio ultrawideband communication system design," MPRG_TR-04-07, technical report, May 2004.
14. J. Hicks and J. H. Reed, "Novel approaches to overloaded array processing," MPRG-TR-03-19, Ph.D. dissertation, August 2003.
15. R. Mostafa and J. H. Reed, "Feasibility of smart antennas for the small wireless terminals," MPRG-TR-03-12, Ph.D. dissertation, April 2003.
16. S. Krishnamoorthya and J. H. Reed, "Interference measurements and throughput analysis for 2.4 GHz wireless devices in hospital environments," MPRG-TR-03-10, M.S. thesis, April 2003.
17. P. M. Robert and J. H. Reed, "Reduction in coexistent WLAN interference through statistical traffic management, MPRG-TR-03-09, Ph.D. dissertation, April 2003.
18. W. G. Newhall and J. H. Reed, "Radio channel measurements and modeling for smart antenna array systems using a software radio receiver," MPRG-TR-03-08, Ph.D. dissertation, April 2003.
19. Y. Ahmed and J. H. Reed, "A model-based approach to demodulation of co-channel MSK signals," MPRG-TR-02-24, M.S. thesis, December 2002.
20. R. Chembil Palat and J. H. Reed, "VT-STAR design and implementation of a test bed space-time block coding and MOMI channel measurements," MPRG-TR-02-19, M.S. thesis, October 2002.
21. W. Newhall and J. H. Reed, "Radio channel measurements, modeling, and characterization for antenna array Systems," MPRG-TR-02-16, Ph.D. preliminary, August 2002.
22. B.-L. Cheung and J. H. Reed, "Simulation of adaptive array algorithms for OFDM and adaptive vector OFDM systems," MPRG-TR-02-15, M.S. thesis, September 2002.
23. R. Mostafa, R. Gozali, W. Newhall, I. Akbar, J. H. Reed, B. D. Woerner, and W. H. Tranter, "Navy collaborative integrated information technology initiative," report #19, MPRG-TR-02-13, technical report, April 2002.
24. R. Mostafa, R. Gozali, W. Newhall, I. Akbar, J. H. Reed, B. D. Woerner, and W. H. Tranter, "Navy collaborative integrated information technology initiative," report # 17, MPRG-TR-02-05, technical report, January 2002.
25. S. Marikar, L. DaSilva, and J. H. Reed, "Resource management in 3G systems employing smart antennas," MPRG-TR-02-04, M.S. thesis, January 2002.
26. P. M. Robert and J. H. Reed, "Reduction in coexistent WLAN interference through statistical traffic management," MPRG-TR-02-01, Ph.D. preliminary, August 2001.
27. R. Mostafa, R. Gozali, W. Newhall, I. Akbar, J. H. Reed, B. D. Woerner, and W. H. Tranter, "Navy collaborative integrated information technology initiative," report # 16, MPRG-TR-01-17, technical report, October 2001.

28. M. Soni, P. Athanas, and J. H. Reed, "Computing engine for reconfigurable software radio," MPRG-TR-01-15, M.S. thesis, October 2001.
29. T. E. Biedka and J. H. Reed, "Analysis and development of blind adaptive beamforming algorithms," MPRG-TR-01-14, Ph.D. dissertation, August 2001.
30. R. Gozali, R. Mostafa, P. M. Robert, R. Chembil Palat, W. Newhall, B. D. Woerner, and J. H. Reed, "Design process of the VT-STAR multiple-input multiple-output (MIMO) test bed," MPRG-TR-01-12, technical report. August 2001.
31. R. Mostafa, R. Gozali, W. Newhall, I. Akbar, J. H. Reed, B. D. Woerner, and W. H. Tranter, "Navy collaborative integrated information technology initiative," report # 15, MPRG-TR-01-11, technical report, July 2001.
32. S. Srikanteswara and J. H. Reed, "Design and implementation of a soft radio architecture for reconfigurable platforms," MPRG-TR-01-10, Ph.D. dissertation, July 2001.
33. R. Mostafa and J. H. Reed, "Feasibility of transmit smart antenna at the handset," MPRG-TR-01-07, Ph.D. preliminary, December 2000.
34. J. Hicks and J. H. Reed, "Overloaded array processing with spatially reduced search joint detection," MPRG-TR-00-08, M.S. thesis, May 2000.
35. T. Biedka and J. H. Reed, "A general framework for the analysis and development of blind adaptive algorithms," MPRG-TR-00-05, Ph.D. preliminary, April 2000.
36. S. Srikanteswara and J. H. Reed, "Design and implementation of a soft radio architecture for reconfigurable platforms," MPRG-TR-00-02, Ph.D. preliminary, November 1999.
37. R. B. Ertel and J. H. Reed, "Antenna array systems: Propagation and performance," Ph.D. dissertation, July 1999.
38. N. R. Mangalvedhe and J. H. Reed, "Development and analysis of adaptive interference rejection techniques for direct sequence code division multiple access systems," Ph.D. dissertation, July 1999.
39. K. Phillips and J. H. Reed, "Probability density function estimation for minimum bit error rate equalization," MPRG-TR-99-04, M.S. thesis, May 1999.
40. Z. Hu and J. H. Reed, "Evaluation of joint AOA and DOA estimation algorithms using the antenna array systems," MPRG-TR-99-02, M.S. thesis, December 1998.
41. R. B. Ertel and J. H. Reed, "Antenna array systems: Propagation and performance," MPRG-TR-98-12, Ph.D. preliminary, December 1998.
42. N. R. Mangalvedhe and J. H. Reed, "Development and analysis of adaptive interference rejection techniques for direct sequence code division multiple access systems," MPRG-TR-98-13, Ph.D. preliminary, December 1998.
43. P. M. Robert and J. H. Reed, "Simulation tool and metric for evaluating wireless digital video systems," MPRG-TR-98-11, M.S. thesis, September 1998.

44. S. F. Swanchara and J. H. Reed, "An FPGA-based multiuser receiver employing parallel interference cancellation," MPRG-TR-98-06, M.S. thesis, July 1998.
45. N. Tripathi and J. H. Reed, "Generic handoff algorithms using fuzzy logic and neural networks," Ph.D. dissertation, MPRG-TR-97-18, November 1997.
46. D. Breslin and J. H. Reed, "Adaptive antenna arrays applied to position location," MPRG-TR-97-14, M.S. thesis, August 1997.
47. S. Nicoloso and J. H. Reed, "Investigation of carrier recovery techniques for PSK modulated signals in CDMA and multipath mobile environments," MPRG-TR-97-11, M.S. Thesis, May 1997.
48. N. Tripathi, J. H. Reed, and H. VanLandingham, "An adaptive direction biased fuzzy handoff algorithm with unified handoff candidate selection criterion," MPRG-TR-97-08, April 1997.
49. N. Tripathi, J. H. Reed, and H. VanLandingham, "An adaptive algorithm using neural encoded fuzzy logic system," MPRG-TR-97-07, April 1997.
50. N. Tripathi, J. H. Reed, and H. VanLandingham, "A new class of fuzzy logic based adaptive handoff algorithms for enhanced cellular system performance," MPRG-TR-97-06, April 1997.
51. B. Fox and J. H. Reed, "Analysis and dynamic range enhancement of the analog-to-digital interface in multimode radio receivers," MPRG-TR-97-02, February 1997.
52. A. Alexander, S. Panchapakesan, D. Breslin, J. H. Reed, T. Pratt, and B. D. Woerner, "The feasibility of performing TDOA based position location on existing cellular infrastructures," MPRG-TR-96-37, December 20, 1996.
53. N. Tripathi and J. H. Reed, "Handoffs in cellular systems: A tutorial," MPRG-TR-96-35, November 1996.
54. N. Zecevic and J. H. Reed, "Interference rejection techniques for the mobile unit direct-sequence CDMA receiver," MPRG-TR-96-27, August 1996.
55. K. J. Saldanha and J. H. Reed, "Performance evaluation of DECT in different radio environments," MPRG -TR-96-28, August 1996.
56. R. He and J. H. Reed, "AMPS co-channel interference rejection techniques and their impact on system capacity," MPRG-TR-96-25, July 1996.
57. N. Zecevic and J. H. Reed, "Techniques and adaptation algorithms for direct sequence spread spectrum capacity," MPRG-TR-96-27, July 1996.
58. M. K. Khan, J. H. Reed, and I. Howitt, "Interference mitigation in AMPS/NAMPS and GSM using artificial neural networks," MPRG-TR-96-24, June 1996.
59. J. H. Reed, T. S. Rappaport, and B. D. Woerner, "What you should know before returning to school," *RF Design*, pp. 67-69, March 1996.
60. T. Biedka and J. H. Reed, "Direction finding methods for CDMA mobile wireless systems," MPRG-TR-96-20, June 1996.

61. Y. M. Vasavada and J. H. Reed, "Performance evaluation of a frequency modulated spread-spectrum system," MPRG-TR-96-13, February 1996.
62. M. V. Majmundar and J. H. Reed, "Adaptive single-user receivers for direct sequence CDMA systems," MPRG-TR-96-12, January 1996.
63. R. He and J. H. Reed, "Co-channel interference rejection techniques for AMPS signals using spectral correlation characteristics," MPRG-TR-96-11, January 1996.
64. J. S. Elson and J. H. Reed, "Simulation and performance analysis of cellular digital packet data," MPRG-TR-96-08, February 1996.
65. J. D. Laster and J. H. Reed, "Improved GMSK demodulation emphasizing single channel interference rejection techniques," MPRG-TR-96-05, February 1996.
66. M. Welborn and J. H. Reed, "Co-channel interference rejection using model-based demodulator" MPRG-TR-96-04, January 1996.
67. F. Dominique and J. H. Reed, "Design and development of a frequency hopper based on the DECT system for the 902-928 MHz ISM band," MPRG-TR-96-02, January 1996.
68. P. Athanas, I. Howitt, T. S. Rappaport, J. H. Reed, and B. D. Woerner, "A high capacity adaptive wireless receiver implemented with a reconfigurable computer architecture," MPRG-TR-18, November 1995.
69. N. Mangalvedhe and J. H. Reed, "An eigenstructure technique for direct sequence spread spectrum synchronization," MPRG-TR-95-04, April 1995.
70. Y. M. Kim, N. Mangalvedhe, B. D. Woerner, and J. H. Reed, "Development of a low power high data rate spread-spectrum modem," MPRG-PPR-95-01, February 1995.
71. Y. M. Kim, N. R. Mangalvedhe, B. D. Woerner, and J. H. Reed, "Development of a low power high data rate spread-spectrum modem," MPRG-PPR-95-02, June 1995.
72. P. Petrus and J. H. Reed, "Blind adaptive antenna arrays for mobile communications," MPRG-TR-95-01, December 1994.
73. S. Yao and J. H. Reed, "Differential detection of GMSK signals," MPRG-TR-94-27, October 1994.
74. R. Zheng, J. Tsai, R. Cameron, L. Beisgen, B. D. Woerner, and J. H. Reed, "Capacity and interference resistance of spread-spectrum automatic vehicle monitoring systems in the 902-928 MHz ISM Band," MPRG-TR-94-26, final report to Southwestern Bell Mobile Systems, October 1994.
75. F.-S. Cheng and J. H. Reed, "A new approach to dynamic range enhancement," MPRG-TR-94-25, October 1994.
76. R. S. Zheng and J. H. Reed, "Channel modeling and interference rejection for CDMA automatic vehicle monitoring systems," MPRG-TR-94-21, November 1994.
77. R. He and J. H. Reed, "AMPS interference rejection: Blind time-dependent adaptive filtering - Volume I," final report to ARGO Systems Inc., MPRG-TR-94-19, July 1994.

78. T. H. Qazi and J. H. Reed, "Model-based demodulation of FM signals - Volume II," MPRG-TR-94-17, final report to ARGO Systems, August 1994.
79. M. Subramanian and J. H. Reed, "Noncoherent spread-spectrum communication systems," MPRG-TR-94-14, August 1994.
80. F. Cheng, A. Kelkar, I. Jacobs, and J. H. Reed, "Performance evaluation for the dynamic range enhancement technique (DRET)," MPRG-TR-94-10, final report to Southwestern Bell Technology Resources, September 1994.
81. V. Aue and J. H. Reed, "Optimum linear single user detection in direct-sequence spread-spectrum multiple access systems," MPRG-TR-94-03, March 1994.
82. R. Holley and J. H. Reed, "Time dependent adaptive filters for interference cancellation in CDMA systems," MPRG-TR-93-15, September 1993.

Other Papers & Reports:

1. P. M. Robert and J. H. Reed, "Va. Tech finds soft radio's missing link," *EE Times*, August 2004.
2. J. H. Reed, T. C. Hsia, and H. Etemad, "Differential demodulation of BPSK using time dependent adaptive filtering," final report to California MICRO Program, 1992.
3. J. H. Reed, "Adaptive filters and their application to interference rejection," *Defense Electronics*, pp. 85-86 and 89-90, May 1989.
4. W. Gardner, B. G. Agee, W. A. Brown, C. K. Chen, J. H. Reed, and R. S. Roberts, "A comparison of Fourier transformation and model fitting methods of spectral analysis," Signal and Image Processing Lab Report No. SIPL-86-4, Department of Electrical and Computer Engineering, University of California, Davis, 1986. (Also in *Statistical Spectral Analysis — A Non Probabilistic Theory*, Prentice-Hall.)

Selected Corporate Report Topics:

- * A DSP-Based Receiver for the New North American Digital Cellular Standard
- * Spread Spectrum Detection Techniques
- * Cyclic Spectral Analysis of Modulated Signals
- * Projection of Future High-Volume Digital Communication Systems
- * A High Speed Digital Filter for Sample Rate Conversion
- * A Least-Squares System Identification Method
- * Cyclic Adaptive Filtering for Interference Rejection
- * Implementation Issues of Adaptive Interference Rejection Techniques
- * Investigation of Modern Spectral Analysis Techniques

- * The Performance of Time-Dependent Adaptive Filtering of Real Data
- * A Maximum-Likelihood Estimator for Tracking and Detecting Frequency Hopping Signals
- * Digital Signal Processing Algorithms for Squelch Control
- * A Low-Cost Whitening Filter for Jammer Applications
- * Time-Dependent Single Channel and Multi-Channel Interference Rejection Algorithms

Patents

- X. Ma, T. Yang, J. H. Reed, "Smart Medicine Container and Wireless Event Detection/Notification System," Provisional U.S. patent, 2013.
- Tamal Bose, Xuetao Chen, Jeffrey H. Reed, Tech ID: 09-022 Efficient Outphasing Transmitter USPO#: 8,290,086, Issue October 16, 2012
- Reed, Jeffrey, and Carlos Aguayo Gonzale, Using Power Fingerprinting (PFP) To Monitor The Integrity And Enhance Security Of Computer Based Systems, WIPO Patent 2012061663, submitted May 11, 2012.
- Saffet Bayram, Robert J. Boyle, James E. Hicks, Jeffrey H. Reed, Method and system for overloaded array processing, WO 2001089167 A2, issued Nov. 2011

Section V. Public Service/Outreach

Industrial Affiliate/Outside Agency Contacts:

Companies and Government Agencies visited in 2009 - 2012 to promote Wireless@VT and the Hume Center:

Apple Computer	Nokia
Booz Allan Hamilton	IDA
DARPA	Motorola
Army Research Lab	NSA
ZETA	MA-COMM
SAIC	Intel
DRT	NSF
Laboratory of Telecommunications Science	FCC
John Hopkins Applied Physics Lab	FBI
NRO	Samsung
NSA	Aerospace Corporation
CRT	CIA
Defense Spectrum Office	US Army
NIST	Thales Communications
NRL	Textronix
Northrup Grumman	ONR
ISI	SPAWAR

RINCOM
CERDEC
Award Solution
ONR
Applied Signal Technologies
DSO
GE
MBC
LTS

ATT
Ventura Solutions
Syracuse Research Corp
SPAWAR
I-APRA
L-3
DRS
CAER
Lockheed Martin

Funding Agency Reviewer:

NSF
University of California, MICRO
Kansas 2000
Qatar Science Foundation
ARO
Canadian Foundation for Innovation

Sponsored Visiting Researchers:

Ahmed Darwish from Cairo University, June-September 1999
Yeongjee Chung from Korea, January-August 1999
Shinichi Miyamoto from Kobe, Japan, April 2001-March 2002
Young-Soo Kim from Seoul, Korea, February 2002-February 2003
Friedrich Jondral from Karlsruhe, Germany, April-June 2004
Francisco Portelinha from Brazil, October 2004-February 2006
Seuck Ho Won from Korea, February 2005-January 2006
Duk Kyu Park from Seoul South Korea, January 2007-February 2008
Marojevic Vuk from Spain, September 2007-January 2008
Francisco Martins Portelinha from Brazil, February 2008-March 2008
Jeong Ho Kim from South Korea, July 2008 – February 2010
Stefan Werner Nagel from Germany, August 2009 - October 2009
Arthur Herzog from Darmstadt, Germany April 2010 – June 2010

Conference Organization & Technical Reviewing:

Associate editor for Proceedings of the IEEE on Future of Spectrum Access, May 2014
Board of Directors for WINFORUM, 2014
Editorial Board Member for the Proceedings of the IEEE
IEEE Fellows Selection Committee for Computer Society
General Chair DySPAN 2014
Organizing Committee for Globecom 2010
Technical Program Committee for IEEE Dyspan 2009/2010
Technical Program Committee for Globecom 2009
Technical Program Committee for VTC 2009
Technical Program Committee for COMCAS 2009 (and session chair)
Associate Editor for Proceedings of the IEEE, Issue on Cognitive Radio, April & May 2009
Associate Editor for IEEE Journal on Select Area of Communications, Issue on Cognitive Radio

Technical Program Committee for IEEE Conference on Communications
Technical Program Committee for CrownCom
Reviewer

IEEE Transactions on Antennas and Propagation
IEEE Transactions on Wireless Communications
IEEE Transactions on Communications
IEEE Transactions on Signal Processing
IEEE Transactions on Aerospace and Electronics Systems
IEEE Transactions on Selected Areas of Communications
IEEE Signal Processing Letters
IEEE Communications Magazine
IEEE Communications Letters
International Journal of Electronics

Session Chair for the SDR Forum 2007, Denver, CO, November 5 – 9, 2007

Advisory Board, *IEEE International Conf. Ultrawideband (ICU)*, September 2005.

Moderator for the paper session "Ultrawideband Design Approaches," at the *Communications Design Conf.*, March - April 2004.

Moderator for the panel, "UWB Panel on Communication Systems Design," at the *Communications System Design Conf.*, October 2003.

Chair of session titled, "Mobile Computing and Software Defined Radios," at the *International Conf. Engineering Reconfigurable Systems Algorithms (ERSA)*, June 2003.

Co-technical program chairman for the *SDR Forum Conf.*, November 2002.

General Chair for the *UWBST Conf.*, November 2003.

Technical program chairman for the *SDR Forum/MPRG Workshop Smart Antennas*, June 2003.

Federal & State:

US Department of Commerce CSMAC to advise on spectrum technology and policy

President's Council of Advisors in Science and Technology working group on transitioning federal spectrum for commercial use and economic growth, 2011-2012. Recognition letter from President Obama.

Army Research Office Board of Visitors, 2012- 2013

Idaho National Labs Advisory Board, 2012 - present

IEEE Fellows Evaluation Committee for Computer Science, 2012

National Science Foundation workshop co-organizer, *Enhancing Access to the Radio Spectrum*, August, 2010. Goal was to develop a major research program to support spectrum research for the National Broadband Plan. Participants include Secretary of Commerce, a Commissioner of the FCC, interim head of NSF, multiple NSF Division Directors, Whitehouse and Capitol Hill staffers.

US Dept. of Commerce Committee on EARS Regulations 2008-2009. A Federal Advisory Committee Appointed by the Secretary of Commerce To examine EARS Regulations. 2009. *Note current EARS regulations currently represent a major challenge to US industry and academia for engaging international personnel in research and this committee addressed this challenge.* 2007.

Co-Leader for the SDR Forum and Object Management Group of Smart Antenna API standardization efforts 2008-2009

Co-Leader for NSF workshop on SDR held in Ireland on May 12 – 16, 2008.

Virginia Broadband Task Force (headed by now Senator Warner and US CTO Anish Chopra) to examine steps for bridging the digital divide.

DARPA panel member to identify and create new programs for DARPA to support NSA. This activity is expected to result in \$60M – \$80M in new DARPA programs. 2007

Workshop help DARPA define a new program in bio-mimesis, the imitation of living organisms through electronics and mechanics.

Assisted the Army Research Office in developing their five year research plan for communications.

University Professional Service Current & Past:

Distinguished Lecturer for the IEEE Vehicular Technology 2010-2014
Director Wireless @ Virginia Tech, 2006-2014
Interim Director, Ted and Karyn Hume Center
Participation within the Center for Wireless Telecommunications (CWT)
Department Computing Committee
Faculty Advisor to the Honor System
Faculty Advisory Committee, Information Technology for VT
EE Graduate Administrative Committee (Grad AdCom)
Communications Area Committee
US Student Recruitment Strategy Task Force
Course supervisor of ECPE 5674 and ECPE 4654
ECE Department Head Search Committee
ECE Executive Committee
ECE Resource Committee
Deputy Director, MPRG
ECE Recruiting Committee

Section VI. Industrial Experience

Industrial Employment:

Allied Communications, Co-founder and Advisory Board Chair, 2011- present
Power Fingerprint, Inc. President, CEO, and Co-Founder, 2011-Present
Cognitive Radio Technology, LLC. CTO and co-founder, 2007- Present
Co-founded Dot Mobile, Inc. March 2000-2001
(Company specializes in mobile data applications including wireless-internet based applications.)

Past Clients

ACM Systems	Grass Valley Group
Analog Devices	BRTRC
DIGCOM	E-Systems
F&S	General Dynamics
Gray Cary	Harris Broadband
Honeywell	HRL
IWT	Jones Day
NORCOMM	SAIC
Labarge	IDA
SRC	Weil
Samsung	MITRE
Shafer	SCA Technica
IIT	Navsys
US Navy	Tantivy
Arnold Porter	Sidley Austin

Founded Reed Engineering, March 1986 – Present

(Company performs consulting, expert witnessing and training in wireless communications and signal processing.)

Member, Technical Staff Signal Science, Inc., Santa Clara, CA, 1980-1985

Areas of Specialization:

- Spread spectrum detection
- Foreign technology analysis
- Computer systems administration

Past and Current Advisory Board Positions:

TechContinuum
Idaho National Labs Homeland Security
Army Research Office Networking and Communications
Samsung Telecommunications
Spyrock
Totus Lighting
Airbee
FAWNA
Wayve Tech

Selected past industry projects:

- Technical Evaluation of AT&T and T-Mobile Merger
- Comments on FCC NPRM on issues such as 600 MHz cellular band plan, network neutrality, and spectrum screening
- Expert Witness Wireless Email
- Software Architecture for Radios
- Company acquisition evaluation

- Expert witness in wireless location systems (multiple times)
- Evaluation of a wireless high-speed internet access system
- Evaluation of wireless/signal processing companies for acquisition
- Tutorials on software radio issues
- Tutorials on trends in wireless communications
- Adaptive interference rejection techniques
- Spread spectrum signal detection
- Expert witness for wireless power sources
- Study Panelist for NSA/DARPA programs via Schafer Corp.
- Advising on Trends in Communications: SAIC
- Provide Survey of Low Power Communications Trends: Mitre Corporation