

VITA

Robert J. Veillette

Associate Professor and Chair
Department of Electrical and Computer Engineering
University of Akron
Akron, OH 44325-3904
(330) 972-7483
(330) 972-5403

EDUCATION:

Ph.D., University of Illinois at Urbana-Champaign, 1990
Electrical Engineering

M.S., Clemson University, 1985
Electrical Engineering

B.S.E.E. (*summa cum laude*), Virginia Polytechnic Institute and State University, 1982
Electrical Engineering

UNIVERSITY EMPLOYMENT:

The University of Akron
Department of Electrical and Computer Engineering
Assistant Professor, 1990 – 1995
Associate Professor, 1995 – present
Interim Chair, July 2018 – August 2020
Chair, August 2020 – present
Member, Graduate Faculty

AWARDS:

University of Akron Outstanding Teacher Award, 2015
Honors Advising Award, UA Honors College, 2014
College of Engineering Chemstress Outstanding Teacher Award, 1999.
NASA Certificate of Recognition for “Quantification of Gear Tooth Damage by Optimal Tracking of Vibration Signatures,” October 1997, \$150.00 honorarium.
Honorable Mention, Tau Beta Pi Outstanding Professor Award, 1996.
Nominee, Chemstress Outstanding Teacher Award, 1995. (Ineligible to receive award.)
NASA/OAI Collaborative Aerospace Research Fellowship, 1993.
NASA/ASEE Summer Faculty Fellowship, 1991, 1992.
GE Forgivable Loan, University of Illinois, 1987.
Incomplete List of Teachers Ranked as Excellent by their Students, UIUC, 1985, 1986.
University of Illinois Fellowship, 1985-86.
Industrial Graduate Fellowship, Clemson University, 1982-84.
R. C. Edwards Fellowship, Clemson University, 1982-83.

MAJOR DEPARTMENTAL SERVICE:

Chair August 2020 – present, Interim Chair, July 2018 – August 2020.
ECE Department Undergraduate Advisor, Fall 2010 – present.
ABET Coordinator for EE program, Fall 2008 – Spring 2015.
EE/ECE Department Graduate Policy Committee Chair, 2000-2010.
EE/ECE Department Honors Faculty Advisor (Preceptor), 1996-present.
Visit Day host or co-host, innumerable events.

COMMITTEE APPOINTMENTS:

University:

Strategic Planning Working Group	Fall 2019	2 mo.
Faculty Senate	Fall 2016	2 yr.
Academic Policies Committee	Fall 2016	2 yr.
General Education Implementation Committee:		
Tagged Learning Outcome of Critical Thinking	Fall 2014	5 sem.
Regents Graduate/Professional Fellowship Committee	Spring 2005	1 sem.
NCA Self-study Steering Committee	Fall 2001	2 yr.
Curriculum Committee of Graduate Council	Fall 2001	1 yr.
Graduate Council	Fall 1997	3 yr.
Curriculum Committee of Graduate Council	Fall 1996	3 yr.
<u>Chair</u> , Univ. Review Committee for Civil Engineering	Spring 1996	2 sem.

College of Engineering:

Undergraduate Curriculum Committee	Fall 2012	4 sem?
Brochure Committee	Fall 2004	4 sem.
Strategic Planning Committee	Spring 2003	4 sem.
Graduate Curriculum Committee	Fall 2001	1 yr.
Graduate Curriculum Committee	Fall 1999	1 yr.
<u>Chair</u> , Conflict of Interest Policy Working Group	Fall 1998	1 sem.
Graduate Curriculum Committee	Fall 1998	1 yr.
College Planning Committee	Spring 1994	1 sem.
College Scholarship Committee	Spring 1994	temp.
Computer Policy & Management Committee	Fall 1993	temp.

Dept. of Electrical and Computer Engineering:

ECE Advising Committee	Fall 2014	2 sem.
<u>Chair</u> , ECE Accreditation and Assessment Committee	Fall 2014	2 sem.
ECE Curriculum Committee	Fall 2014	2 sem.
ECE Undergraduate Policy Committee	Fall 2010	4 yr.
ECE RTP Rules Committee	Spring 2010	1 sem.
<u>Chair</u> , ECE Graduate Policy Committee	Fall 2000	10 yr.
EE Search Committee	Spring 1999	1 sem.
<u>Chair</u> , EE Search Committee	Spring 1997	1 sem.
<u>Chair</u> , EE Search Committee	Fall 1995	2 sem.
EE Search Committee	Fall 1994	2 sem.
EE Planning Committee	Spring 1994	1 sem.
EE Search Committee	Fall 1993	2 sem.
EE Space Committee	Spring 1993	1 sem.

INCIDENTAL SERVICE:

Advisor, Akron Ballroom Dance Club, 2019-present.
Advisor, Akron Dodgeball Club, 2015?-present.
Advisor, HAKron, 2016?-2018.
Advisor, Men in Engineering LLC, 2014?-present.
Member, OBR/UA Focus group on Prior Learning Assessment, March 11, 2013.
Judge, poster session, Conf on UG & Grad Student Research, UA, April 7, 2011.
Graduate Student Grievance Hearing Committee, March 6, 2000
Member, COE Strategic Planning, Ramada Plaza Hotel, Akron, January 8-10, 1997.
Department rep., EE table, High-School recruiting event, Oct 25, 1996, Sep 16, 1997, ...
Advisor, Eta Kappa Nu, 1996-97.
Co-editor of the EE department brochure, Fall 1995 – Spring 1996.

OUTREACH / RECRUITING PRESENTATIONS: (partial list)

“Electrical and Computer Engineering,” Willoughby South High School, September 23, 2016
“Why Be ECE?,” presented to Upward Bound Pre-engineering group, July 9, 2015
“Why Be ECE?,” presented at SEE-UA Women in Engineering Summer Camp, June 14, 2011.
Included “LED Cube Programming” lab exercise for the students.
“Why Be ECE?,” presented at UA Engineering Career Day, January 29, 2011.
“Why Be ECE?,” presented at “Why in the World” Women in Engineering event, October 29, 2009.
“Why Be ECE?,” presented at SEE-UA Women in Engineering Summer Camp, June 18, 2009.
Included “LED Cube Programming” lab exercise for the students.
“Hybrid Vehicles: Principles and Limitations,” E-week presentation to Lockheed Martin, Akron, February 16, 2009.
“Why Be ECE?,” presented at Engineering Career Day, October 17, 2008.
“Why Be ECE?,” presented at SEE-UA WIE Summer Camp, June 27, 2007. Included “LED Cube Programming” lab exercise for the students.
“Why Be ECE?,” presented at WIE - Multiply Your Options event, June 20, 2007.
Electrical Demonstrations, presented to Cub Scout Pack, St. Paul’s Episcopal Church, Akron, OH, April 18, 2007.
“Why Be ECE?,” presented to the prospective freshmen attending UA Visitation Day, GSC Theater, April 7, 2001.
Electrical Demonstrations, presented to Joyce Fair’s 4th-grade science class, Room 208, King School, Akron, OH, April 6, 2001.
“Why Be ECE?,” presented to the Goodyear Engineering Explorers Group, Goodyear Hall, Akron, OH, January 3, 2001.
Electrical Demonstrations, presented to Melanie Francis’s 2nd grade class, St. Sebastian School, Akron, OH, April 7, 2000.

COURSES TAUGHT:

Undergraduate

Tools for Engr. Lab	4100:101	Fall 1997
Tools for ECE Lab	4400:101	Fall 1999
Signal Analysis	4400:243	Fall 1996, 1998; Summer 1998
Basic Electrical Engineering	4400:307	Spring 1996-97, 1999-2002#, 2007, 2010-13, 2016, 2018; Fall 2000
Circuits II	4400:332	Spring 2014-15; Summer 2000
Discrete-time Systems	4400:333	Fall 1992-93, 1995; Summer 1994-1999
Signals and Systems	4400:340	Fall 2001-04, 2008-2017; Summer 2001, 2004-2007, 2009
Electromagnetics I	4400:353	Summer 2001§
Electronic Design	4400:361	Spring 2008
Hybrid Vehicle Design	4400:391	Summer 2005*; Fall 2006**
Control Systems II	4400:472	Fall 1991-2020

* Team-taught with I. Husain, R. Gross, and J. Gerhardt.

** Team-taught with I. Husain.

“Substitute teacher” for the last third of the Spring 2000 semester.

§ “Substitute teacher” for two weeks of the Summer 2001 eight-week session.

Graduate

Control Systems II	4400:572	Fall 1991-2020
Optimal Control	4400:677	Spring 1991-1997*, 1999-2006, 2009-2011, 2013-14, 2016-19
Robust Control	4400:775	Spring 1993, 1995, 1999, 2003, 2006
Opt Cntrl II/Adv Lin Cntrl S	4400:777/774	Spring 1992, 1994, 1996, 1998, 2000, 2004, 2009, 2012, 2015, 2020; Summer 1997
Optimal Control	4400:776	Spring 1991
Advanced Topics in Control	4400:779	Spring 1991
SP: Robust Control	4400:693	Fall 1990

* Spring 1995 class transmitted via video link to NASA/OAI video-conference room.

HONORS COLLOQUIUM PRESENTATIONS

“Hybrid Vehicles: Principles and Limitations,” Natural Science Colloquium

February 21, 2008
October 21, 2008
March 5, 2009
October 5, 2009
March 1, 2010
November 4, 2010
April 11, 2011
November 10, 2011
April 5, 2012
November 15, 2012
April 18, 2013
October 8, 2013
February 11, 2014
October 7, 2014
March 17, 2015
March 29, 2016
October 4, 2016
March 14, 2017
April 10, 2018

COURSES AND LABORATORIES INTRODUCED OR REDEFINED FROM SCRATCH:

Adv. Instrument. Elx. × 1/3	4400:698	Spring 2011
Electronic Design Lab	4400:361	Spring 2008
Hybrid Vehicle Design × 1/3	4400:391	Summer 2005, Fall 2006
Signal Analysis	4400:243	Fall 1996
Control Systems II Lab	4400:472/572	Fall 1996
Control Systems II Lab	4400:472/572	Fall 1992
Optimal Control II	4400:777	Spring 1992
Robust Control	4400:775	Fall 1990

MAJOR STUDENT COMPETITION CO-SUPERVISED:

Challenge X: Crossover to Sustainable Mobility, USDOE and General Motors Corporation, 2004-2007. Project involved as many as 60 students from ECE and ME departments.

SENIOR PROJECT ADVISING: (27 total, plus 2 in progress)

Skateboard ABS; Raymond Hoyle, Logan Mashchak, Corey Miller, Benjamin Roter; 2020-2021 (in progress).

Analog+Digital synthesizer; Adam Brunner, Andrew Cihon-Scott, Scott Grisso, Linus Wright; 2020-2021 (in progress).

Bio-impedence Measurement; Ryan Byo, Kevin Libertowski, Mitchell Sutyak, Steven Weimer; 2019-2020.

Virtual Musical Assistant; Larry Fritz, Bridger Garmon, David Klett, Kyle Vasulka; 2019-2020.

Automatic Range-finding Bow Sight; Dillon Denny, David King, Garrett Gill, Cory Verba; 2018-2019.

Smart Training Bag; Logan Allen, Dawit Bekele, Michael Chestney, Sami Mousa; 2018-2019.

Autonomous Combat Robot; Mackenzie Hawkins, Michael Hritz, Zachary Kilburn, Hong Lau; 2017-2018.

Ball Oscillating Bouncer (B.O.B.): Control system for bouncing a ping-pong ball; Daniel Altemese, Eric Blok, Ryan Nowacki, Maram Qurban; 2017-2018.

Stringless Guitar; Anthony Batey, Nathaniel Hawk, Dominic Mercorelli, Kue Yang; 2016-2017.

Automated Poker Table; George Abraham, Daniel Kisak, Alexander Libby, Cody Millhone; 2015-2016.

Balancing Robot Butler: Two-wheeled balancing robot; Thomas Garabedian, David Laubli, Jordan Paul, Nikheel Patel, Michael Redle; 2014-2015.

Mr. Ping Pong: Control system for bouncing a ping-pong ball; Kyle Carney, Andrew Gascon, Michael Kelley, Christopher Mack; 2013-2014.

Bioformation Coaching System: Training bicycle with loading and assist determined by heart-rate feedback; Zachary Grimes, Rafic Malouf, Vir Singh, Jason Stein; 2012-2013.

Hybrid Drive: Battery and motor drive system for electric vehicle; Hsin-Ju Chen, John Gilbert, Joshua Haidet, Richard Knapp; 2009-2010.

i-Caddy: Golf pull-cart assist system with RFID club inventory; Michael Byrdey, Maynard Guadiz, Andrew Hussey; 2008-2009.

Auto-Flyer: Automated Search-Aircraft Control System; Richard Ackerman, Britt Ashley, Hiep Tran, John Waggoner; 2007-2008.

NATCAR; Daniel Hawk, Jason Kuzman, Joshua Miller; 2006-2007.

HEV electrical components cooling system; Walter Kohn, David McCartney, Moussa Souaré; 2005-2006.

HEV regenerative braking system; Jonathan Jennings, Theresa Polyak, Andrew Ross, Benjamin Walter; 2005-2006.

HEV supervisory control module; Megha Aggarwal, Daniel Judkins, Nathan Kulick, Joshua Miller, Nathan Picot, 2004-2005.

HEV battery control module; Stephen Faris, Harshad Patel, Vongxay Ratsaphangthong, Kevin Smalley, Sunny Teli, 2004-2005.

Juice machine retrofit; Casey Bakula, Eric Hostetler, James O'Connor, Luke Poth, John Wesp; 2003-2004.

Rocket altitude telemetry system; Blake DeChant, Michael Fotta, Ryan Gibson, Lawrence Mukwaya; 2003-2004.

Temperature-recording robot for ventilation system (TROVER), Adam Barker, Michael Frymier, D. Scott Goodwin, Joseph Sharp, and Wendy Turkuc, 2002-2003.

FPGA Implementation of a Digital Filter, Todd Fleet and Douglas Herro, Spring 2002.

“Feedback Control System for Light-Source Tracking,” David G. Maibach, 3 cr., Fall 1995.

“Simulation of Conveyor Belt Scale Dynamics and Measurement Error,” Clifford P. Brake, 1 cr., Spring 1995.

“Model Self-Guided Vehicle,” Dana Indermuhle, 3 cr., Summer 1994.

“Control System Application: Speed Control System for 1992 Supermilage Vehicle,” Matthew V. Volpone, 3 cr., Spring 1992.

Ph.D. THESES DIRECTED: (4 = 3 as sole advisor + 2 shared)

Jay L. Adams, “Hankel Operators for Fractional-Order Systems,” August 2009. (Co-advisor with T. Hartley)

Daniel C. Deckler, “Modeling and Feedback Control of a Tilting-Pad Journal Bearing,” December 2002.

Yan Wu, “Numerical Simulation and Wavelet-Based Control of Coupled Lorenz Systems,” December 2000. (Co-advisor with Dale Mugler, Mathematics and Computer Science)

Shaun M. Immel, “Modeling and Cross-Sectional Area Control of a Single Roller Die Extrusion Process,” May 2000.

Sang-Woo Nam, “Design of Reduced-order and Decentralized Controllers for Large-scale Systems,” December 1993.

MASTER’S THESES DIRECTED: (14.8 = 10 as sole advisor + 13 shared)

Anthony Batey, in progress.

Kyungin Nam, “Identifying Deteriorated or Fouled Power System Components from RF Emissions,” December 2019. (Co-advisor with J. A. De Abreu.)

Steven C. Talarcek, “An Experimental Study of Disturbance Compensation and Control for a Fractional-Order System,” December 2018.

Matthew G. Granger, “A system for the Non-Intrusive Detection of Damage in Underground Power Cables: Damage Modeling and Sensor System Design,” August 2016.

Emmanuel Djabeng, "Modeling, Simulation, and Implementation of a Fractional-Order Control System," August 2014.

Sneha Bhattaram, "Signal Compression Methods for a Wear Debris Sensor," August 2014. (Co advisor with J. E. Carletta.)

Joseph P. Davis, "Electronic Interface for an Inductive Wear Debris Sensor for Detection of Ferrous and Non-Ferrous Particles," December 2013. (Co-advisor with J. E. Carletta.)

Tanvir Tanvir, "Design and Stability Analysis of a High-Temperature SRAM," December 2012. (Co-advisor with J. E. Carletta.)

Utthej Nukala, "Design of a Temperature Independent MOSFET-Only Current Reference," August 2011. (Co-advisor with J. E. Carletta.)

Purushottam Parajuli, "Design and Simulation of All-CMOS Temperature-Compensated gm-C Bandpass Filters and Sinusoidal Oscillators," June 2011. (Co-advisor with J. E. Carletta.)

Matthew Kollarits, "Design and Simulation of a Temperature-Insensitive Rail-to-Rail Comparator for Analog-to-Digital Converter Application," August 2010. (Co-advisor with J. E. Carletta.)

Dileep Reddy Desai, "Analog Non-linear Multi-variable Function Evaluation by Piece-wise Linear Approximation," August 2010. (Co-advisor with J. E. Carletta.)

Madhu Latha Reddy Vatte, "Readout Circuitry for a Logarithmic CMOS Active Pixel Sensor that Facilitates High Speed Image Processing," August 2010. (Co-advisor with J. E. Carletta.)

Pradeep Namburu, "A Temperature-insensitive Gate-controlled Weighted Current Digital-to-analog Converter," May 2010.

Yang Wang, "Modeling of Ultracapacitor Short-term and Long-term Dynamic Behavior," July 2008. (Co-advisor with J. Carletta and T. Hartley)

Jerry M. Menasian, "A Switched-mode Charge Feedback Control Implementation for Linear Operation of a Piezoelectric Stack Actuator," December 2007.

Nathan M. Picot, "A Strategy to Blend Series and Parallel Modes of Operation in a Series-Parallel 2-by-2 Hybrid Diesel/Electric Vehicle," December 2007.

Praveen Mediseti, "Real-Time Simulation and Hardware-In-Loop Testing of a Hybrid Electric Vehicle Control System," May 2007. (Co-advisor with I. Husain.)

King Yi, "A Charge Controlled Topology for Linear Operation of a Piezoelectric Stack Actuator," December 2003.

Frederick W. Krach, "Design and Implementation of FPGA-based Control Using Digital Redesign for a Magnetic Bearing Application," May 2003. (Co-Advisor with J. Carletta.)

Scott DuFore, "Stripline Resonant Sensor Development for the Measurement and Control of Moisture in a Moving Web," December 2000.

Andrew G. Tulenko, “Design and Prototype Construction of Hot Wire Anemometer Instrumentation for use in Industrial Convection Ovens,” May 2000.

Frank R. Martire, “Prototyping of a High-speed Electromechanical Weighing System,” August 1995.

Arvind Srinivasan, “Projective Control Design for Multi-zone Crystal Growth Furnace,” December 1993. (Co-Advisor with C. Batur, Mechanical Engineering)

Brian R. Holowecky, “A Parameter Optimization Approach to Controller Partitioning Based on the Frobenius-Hankel Norm,” December 1992. (Co-Advisor with P. Schmidt, Mathematical Sciences.)

DOCTORAL COMMITTEE MEMBERSHIPS: (partial list)

Kris Pierson, ME, Spring 2019. (M. J. Braun)
Nathan Moles, ME, Fall 2015. (M. J. Braun)
Jonathan Mackey, ME, Spring 2015. (C. Batur)
Xin (Cindy) Jiang, ECE, Fall 2013. (T. T. Hartley and J. E. Carletta)
Richard Hartman, ECE, Fall 2008. (T. T. Hartley)
Orestes Varonis, ECE, Summer 2008. (N. Ida)
Samuel Underwood, ECE, Spring 2006. (I. Husain)
Ahmed O. Khalil, ECE, Spring 2005. (I. Husain)
Vicky Fang, ECE, Summer 2004. (J. E. Carletta)
Jianyou Zhou, ME, Fall 2003. (F. Choy)
Razvan Ciaocan, ECE, Spring 2003. (N. Ida)
Syed A. Hossain, ECE, Fall 2002. (I. Husain)
Hongmei (Cindy) Zhao, ME, Spring 2002. (M. J. Braun)
Mohammad S. Islam, EE, Fall 2000. (I. Husain)
Michelle Bright, EE, Fall 2000. (T. T. Hartley)
Scott Lattime, ME, Fall 2000. (M. J. Braun)
Lei Xia, EE, Spring 2000. (T. T. Hartley)
Amy Chicatelli, EE, 1999. (T. T. Hartley)
Tong Liu, EE, 1999. (M. E. Elbuluk)
Luis Cabrera, EE, 1999. (J. A. De Abreu)
Vladimir Polyshchuk, ME, 1999. (F. Choy)
Javeed Nizami, ME, 1997. (C. Batur)
Gang Wu, EE, 1997. (J. A. De Abreu)
Thananchai Leephakpreeda, ME, 1996. (C. Batur)
Arvind Srinivasan, ME, Fall 1994. (C. Batur)
Xiaoru Niu, EE, Spring 1994. (J. A. De Abreu)
Ahmad Mohammad, EE, 1992. (J. A. De Abreu)

M.S. THESIS COMMITTEE MEMBERSHIPS: (partial list)

Syed Ahmed Ali Najafi, ECE, Fall 2019. (A. De Abreu, Y. Sozer)
Rachana Shukthija Dasari, ECE, Fall 2018. (Y. Sozer)

Mamun Biswas, ECE, Summer 2018. (M. Elbuluk)
 Aida Gorgani, ECE, Fall 2016. (M. Elbuluk)
 Bo Liu, ECE, Fall 2016. (K.-S. Lee)
 Marcus Horning, ECE, Spring 2016. (N. Ida)
 Shiva Sai Bethi, ECE, Fall 2014. (K.-S. Lee)
 Jian Liu, ECE, Fall 2013. (J. E. Carletta)
 Pongpachara Limpisathian, ECE Fall 2013. (J. E. Carletta and K.-S. Lee)
 Md. Naimul Hasan, ECE, Spring 2013. (K.-S. Lee)
 Kripesh Bhattarai, ECE, Fall 2012. (J. E. Carletta and K.-S. Lee)
 Ravi Shankar Gaddam, ECE, Fall 2012. (K.-S. Lee)
 Shilpa Kunchum, ECE, Fall 2012. (J. E. Carletta)
 Bradley S. Mularcik, ECE, Summer 2012. (Y. Sozer)
 Naga Swathi Kucherlapati, ECE, Spring 2012. (S. I. Hariharan)
 Nikhil Reddy Karnati, ECE, Summer 2011. (K.-S. Lee)
 Gregory Pasquesoone, ECE, Spring 2011. (I. Husain)
 Lavanya Vytla, ECE, Spring 2010. (J. E. Carletta)
 Xinggao Xia, ECE, Fall 2009. (J. E. Carletta)
 Soumendu Chanda, ECE, Spring 2008. (I. Husain)
 Christophe Salgues, ECE, Spring 2008. (I. Husain)
 Casey Bakula, ECE, Fall 2007. (J. E. Carletta)
 Normajeau Selby, ECE, Summer 2007. (J. A. De Abreu)
 Ludovic Chretien, ECE, Spring 2006. (I. Husain)
 Hima Bindu Damecharla, ECE, Summer 2006. (J. E. Carletta)
 Omer Gundogmus, ECE, Fall 2005. (S. K. Sastry)
 Abdelnassir Abdalla, ECE, Spring 2005 (M. E. Elbuluk)
 Murat Kose, ECE, Summer 2004. (S. K. Sastry)
 Sankar Barua, ECE, Summer 2004. (J. E. Carletta)
 Carlos Berron, ECE, Summer 2004. (J. A. De Abreu)
 Tammy Stitz, ECE, Fall 2003. (J. A. De Abreu)
 Jingqian Zhao, ECE, Fall 2003. (J. A. De Abreu)
 Fred Krach, ECE, Spring 2003. (J. E. Carletta)
 Virginie Raulin, ECE, Fall 2002. (I. Husain)
 Ricardo Matias, EE, Fall 2001. (N. Ida)
 Grace Suhasini, EE, Fall 2000. (O. C. Ugweje)
 Mohamad Hanif Y. Vhora, EE, Spring 1998. (?)
 Richard Hartmann, EE, Spring 1997. (T. T. Hartley or J. A. De Abreu)
 J. Bradley Yerashunas, EE, Summer 1996. (J. A. De Abreu)
 Changbo Wen, ME, Spring 1996. (?)
 Michael Wroe, EE, Spring 1995. (J. A. De Abreu)
 Bing Xu, EE, Spring 1995. (T. T. Hartley or J. A. De Abreu)
 Robert J. Krob, EE, Spring 1994. (T. T. Hartley or J. A. De Abreu)
 Arvind Srinivasan, EE, Fall 1993. (T. T. Hartley or J. A. De Abreu)
 Umarani Bangalore, EE, Fall 1993. (T. T. Hartley or J. A. De Abreu)
 Edward R. Pietras, EE, Fall 1992. (T. T. Hartley or J. A. De Abreu)
 Brian Marinchek, EE, Spring 1992. (T. T. Hartley)
 Naser Abu-Khamseh, EE, Spring 1992. (T. T. Hartley or J. A. De Abreu)

Nasser Salem, EE, 1991. (T. T. Hartley or J. A. De Abreu)
Liane Piercy, EE, Fall 1991. (T. T. Hartley)
Timothy E. Nelson, EE, Spring 1991. (J. Welch)

EXTERNAL M.S. THESIS COMMITTEE MEMBERSHIP:

Yuqiong Liu, Nanyang Technological University, Singapore, Spring 1997.

M.S. COMPREHENSIVE EXAM COMMITTEE MEMBERSHIPS: (partial list)

Gregory Mueller, Spring 2014.
John Shuman, Spring 2013.
Udaya Sindhura Guthikonda, Fall 2005.
Brian Dimit, Fall 2002.
Jin Wang, Spring 2002.
Artem Artyushkov, Summer 2000, chair.
Gang Wu, (date).
Dennis Cameron, (date).
John Haydock, Spring 1996.
Ming Shi, (date).

OTHER PROFESSIONAL ACTIVITIES:

Member: IEEE Control Systems Society, 1990 - present
IEEE Industrial Electronics Society, 1992 – present
IEEE Circuits and Systems Society, 2010 – present
ASEE, 1991-2017

Associate Editor: IEEE Transactions on Industrial Electronics, 2000 – 2005
American Control Conference 2008 – 2018

Editor: Technical Program Committee, IECON'97.

Session Chair: Decentralized Control, 1993 American Control Conference, June 1993.
Adaptive Controls, Ninth Annual OSU Control Workshop, April 1991.

Organizer: Control Systems Seminar Series, EE Department, University of Akron,
Spring 1991,92.

Reviewer: (Journals)
AIAA Journal of Guidance, Control, and Dynamics
ASME Journal of Dynamic Systems, Measurement, and Control
ASME Journal of Tribology
Asian Journal of Control
Automatica
Control and Cybernetics
European Journal of Control
IEE Proceedings – Control Theory and Applications
IEEE/ASME Transactions on Mechatronics
IEEE Journal of Solid-State Circuits

IEEE Transactions on Automatic Control
IEEE Transactions on Control System Technology
IEEE Transactions on Fuzzy Systems
IEEE Transactions on Industrial Electronics
IEEE Transactions on Power Electronics
IET Circuits, Devices and Systems
International Journal of Control
International Journal of Electronics
International Journal of Robust and Nonlinear Control
International Journal of System Science
International Journal of Vehicle Performance
Journal of Engineering Tribology
Journal of Optimization Theory and Applications
Journal of Vibration and Control
Optimal Control Applications and Methods
SIAM Journal on Applied Mathematics

Reviewer: (Conferences)

American Control Conference
ASME / IGTI Turbo Expo
IECON (IEEE Industrial Electronics Conference)
IEEE Conference on Control Applications
IEEE Conference on Decision and Control
IEEE Multi-conference on Systems and Control
IFAC Congress
ISROMAC
MWSCAS

Reviewer: (Book) *Computer Controlled Systems* (Wiley). \$300.00 honorarium, 1996.

PUBLICATIONS:

21 Journal Articles, 50 Refereed Conference Papers, 6 Book Chapters

Citation indices: $h = 17$; $g = 47$. Total citations: 2259

Journal Articles:

S. Khorbotly, F. Hassan, and R. J. Veillette, "Synthesis of recursive linear-phase filters for fixed-point hardware platforms," *IET Circuits, Devices, and Systems*, 2017.

J. L. Adams, R. J. Veillette, and T. T. Hartley, "A method for the Hankel-norm approximation of fractional-order systems," *Journal of Applied Nonlinear Dynamics*, June 2017.

T. T. Hartley, R. J. Veillette, J. L. Adams, and C. F. Lorenzo, "Energy storage and loss in fractional-order circuit elements," *IET Circuits, Devices, and Systems*, vol. 9, no. 3, pp. 227-235, May 2015. [**38 citations as of Aug 2019**]

- Cindy X. Jiang, Joan E. Carletta, Tom T. Hartley, and Robert J. Veillette, "A systematic approach for implementing fractional-order operators and systems," *IEEE Journal on Emerging and Selected Topics in Circuits and Systems (JETCAS)*, vol. 3, no. 3, pp. 301-312, September 2013. **[17 citations as of Aug 2019]**
- J. L. Adams, R. J. Veillette, and T. T. Hartley, "Conjugate-order systems for signal processing: Stability, causality, boundedness, compactness," *Signal Image and Video Processing*, vol. 6, no. 3 (Special Issue), pp. 373-380, September 2012. **[3 citations as of Aug 2019]**
- L. Du, J. Zhe, J. E. Carletta, and R. J. Veillette, "Real-time monitoring of wear debris in lubrication oil using a microfluidic inductive Coulter counting device," *Microfluidics and Nanofluidics*, vol. 9, no. 6, pp. 1241-1245, May 2010. **[68 citations as of Aug 2019]**
- L. Du, J. Zhe, J. E. Carletta, and R. J. Veillette, "Inductive coulter counting: detection and differentiation of metal wear particles in lubricant," *Smart Materials and Structures*, vol. 19, no. 5, March 2010. **[28 citations as of Aug 2019]**
- S. M. N. Hasan, I. Husain, J. E. Carletta, and R. J. Veillette, "A PM brushless DC starter/generator system for series-parallel 2x2 hybrid electric vehicle," *IEEE Transactions on Industry Applications*, 2007. **[12 citations as of Aug 2019]**
- S. M. N. Hasan, I. Husain, R. J. Veillette, and J. E. Carletta, "Power generation in series mode," *IEEE Industry Applications Magazine*, vol. 16, no. 2, pp. 12-21, March 2010. **[2 citations as of Aug 2019]**
- J. L. Adams, T. T. Hartley, and R. J. Veillette, "Hankel-norm estimation for fractional-order systems using the Rayleigh-Ritz method," *Computers and Mathematics with Applications*, vol. 59, no. 5, March 2010. **[3 citations as of Aug 2019]**
- S. Sastry, O. Gundogmus, T. T. Hartley, and R. J. Veillette, "Coordinated discharge of a collection of batteries," *Journal of Power Sources*, vol. 166, no. 1, pp. 284-296, March 2007. **[12 citations as of Aug 2019]**
- Z. Fang, J. E. Carletta, and R. J. Veillette, "A methodology for FPGA-based control implementation," *IEEE Transactions on Control Systems Technology*, vol. 13, no. 6, pp. 977-987, November 2005. **[67 citations as of Aug 2019]**
- K. A. Yi and R. J. Veillette, "A charge controller for linear operation of a piezoelectric stack actuator," *IEEE Transactions on Control Systems Technology*, vol. 13, no. 4, pp. 517-526, July 2005. **[109 citations as of Aug 2019]**
- D. C. Deckler, R. J. Veillette, M. J. Braun, and F. K. Choy, "Simulation and control of an active tilting-pad journal bearing," *Tribology Transactions*, vol. 47, no. 3, July-September 2004. **[61 citations as of Aug 2019]**
- M. S. Islam, I. Husain, R. J. Veillette, and C. Batur, "Design and performance analysis of sliding-mode observers for sensorless operation of switched reluctance motors," *IEEE Transactions on Control Systems Technology*, vol. 11, no. 3, pp. 383-389, May 2003. **[97 citations as of Aug 2019]**

F. K. Choy, V. Polyshchuk, R. J. Veillette, and M. J. Braun, “Health monitoring of a gear transmission using acoustic signatures,” *International Journal of Turbo and Jet Engines*, vol. 14, pp. 89-97, 1997. **[5 citations as of Aug 2018]**

F. K. Choy, R. J. Veillette, V. Polyshchuk, M. J. Braun, and R. C. Hendricks, “Quantification of gear-tooth damage via optimal tracking of vibration signatures,” *International Journal of Rotating Machinery*, vol. 3, no. 3, pp. 143-151, June 1997. **[7 citations as of Aug 2019]**

R. J. Veillette, “Reliable linear-quadratic state-feedback control,” *Automatica*, vol. 31, no. 1, pp. 137-143, January 1995. **[415 citations as of Aug 2019]**

A. Srinivasan, C. Batur, R. Veillette, B. Rosenthal, and W. Duval, “Projective control design for multi-zone crystal growth furnace,” *IEEE Transactions on Control Systems Technology*, vol. 2, no. 2, pp. 142-147, June 1994. **[22 citations as of Aug 2019]**

R. J. Veillette, J. V. Medanić, and W.R. Perkins, “Design of reliable control systems,” *IEEE Transactions on Automatic Control*, vol. AC-37, no. 3, pp. 290-304, March 1992. **[932 citations as of Aug 2019]**

R. J. Veillette and J. V. Medanić, “ H_∞ -norm bounds for ARE-based designs,” *Systems and Control Letters*, vol. 13, pp. 193-204, September 1989. **[21 citations as of Aug 2019]**

Book Chapters:

J. L. Adams, R. J. Veillette, and T. T. Hartley, “Using the Hankel Operator to Initialize Fractional-Order Systems,” Chapter 7 in *Fractional Calculus: Theory*, R. A. Z. Daou and X. Moreau, eds., Nova Science, 2014, pp. 163-182.

R. J. Veillette and J. A. De Abreu Garcia, “The Root-locus Method,” Chapter 12 in *The Industrial Electronics Handbook*, 2nd edition, vol. 5: “Control and Mechatronics,” B. M. Wilamowski and J. D. Irwin, eds., CRC Press, 2011, pp. 12-1 – 12-22.

Y. Wang, T. T. Hartley, C. F. Lorenzo, J. L. Adams, J. E. Carletta, and R. J. Veillette, “Modeling ultracapacitors as fractional-order systems,” in *New Trends in Nanotechnology and Fractional Calculus Applications*, D. Baleanu, J. A. Tenreiro Machado, and Z. B. Guvenc, eds., Springer, 2009.

R. J. Veillette and J. A. De Abreu Garcia, “System Control: Root-locus Method,” Chapter 27 in *The Industrial Electronics Handbook*, J. D. Irwin, ed., CRC Press, 1997, pp. 490-503.

T. T. Hartley, R. J. Veillette, and G. Cook, “Techniques in deadbeat and one-step-ahead control,” in *Control and Dynamic Systems – Advances in Theory and Applications*, vol. 79: “Digital Control Systems Implementation and Computational Techniques,” C. T. Leondes, ed., Academic Press, 1996, pp. 117-157.

R. J. Veillette, J. V. Medanić, and W. R. Perkins, “Robust stabilization and disturbance rejection for uncertain systems by decentralized control,” in *Control of Uncertain Systems*, D. Hinrichsen and B. Mårtensson, eds.; Series “Progress in Systems and Control Theory,” Birkhäuser Publishing Co., 1990, pp. 309-327.

Theses:

“Reliable Control of Decentralized Systems: an ARE-based H_∞ Approach,” R. J. Veillette, Ph.D. Thesis, University of Illinois at Urbana-Champaign, 1990. Advisor: Professor Juraj V. Medanić.

“The Role of Ada Generic Units in a Systems Simulation Language Design,” R. J. Veillette, M.S. Thesis, Clemson University, 1985. Advisor: Professor James F. Leathrum.

Refereed Conference Papers: (name of presenting author is underlined)

M. G. Granger, Y. Sozer, J. A. De Abreu Garcia, R. J. Veillette, A. Ibrahim, and A. R. Boynuegri, “A non-intrusive system for measuring underground power utility cable impedance,” in *IEEE Power and Energy Society General Meeting (PESGM)*, Boston, Massachusetts, USA, July 17-21, 2016. **[4 citations as of Aug 2019]**

T. T. Hartley, R. J. Veillette, J. L. Adams, and C. F. Lorenzo, “Energy stored in fractional-order elements with constant inputs,” in *Proceedings of the ASME International Design Engineering Technical Conferences and Computers and Information in Engineering Conference (IDETC/CIE 2015)*, Boston, Massachusetts, USA, August 2015.

B. Liu, M. D. Kollarits, R. J. Veillette, J. E. Carletta, and K.-S. Lee, “A high-temperature comparator with rail-to-rail input voltage range,” in *Proceedings of the 56th IEEE International Midwest Symposium on Circuits and Systems (MWSCAS 2013)*, Columbus, Ohio, USA, August 2013. **[2 citations as of Aug 2019]**

S. S. Bethi, K.-S. Lee, R. J. Veillette, J. E. Carletta, and M. Willett, “A temperature and process insensitive CMOS reference current generator,” in *Proceedings of the 56th IEEE International Midwest Symposium on Circuits and Systems (MWSCAS 2013)*, Columbus, Ohio, USA, August 2013. **[7 citations as of Aug 2019]**

T. T. Hartley, R. J. Veillette, C. F. Lorenzo, and J. L. Adams, “On the energy stored in fractional-order electrical elements,” Paper no. DETC2013-13498, in *Proceedings of the ASME 2013 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference (IDETC/CIE 2013)*, Portland, Oregon, USA, August 4-7, 2013. **[8 citations as of Aug 2019]**

J. P. Davis, J. E. Carletta, R. J. Veillette, L. Du, and J. Zhe, “Instrumentation circuitry for an inductive wear debris sensor,” *NEWCAS 2012*, Montreal, Canada, June 2012. **[9 citations as of Feb 2015]**

N. Ida, I. Husain, and R. J. Veillette, “Forces and torque in a magnetically actuated harmonic motor,” in *Proceedings of the 13th International Conference on Optimization of Electrical and Electronic Equipment*, Brasov, Romania, May 24-26-2012.

J. L. Adams, R. J. Veillette, and T. T. Hartley, “Initialization of fractional-order systems using the Hankel operator,” in *Proceedings of the ASME 2011 International Design Engineering Technical Conference (IDETC/CIE 2011)*, Washington, DC, August 2011.

T. Gambone, T. T. Hartley, C. F. Lorenzo, J. L. Adams, and R. J. Veillette, "An experimental validation of the time-varying initialization response in fractional-order systems," in *Proceedings of the ASME 2011 International Design Engineering Technical Conference (IDETC/CIE 2011)*, Washington, DC, August 2011. **[9 citations as of Aug 2019]**

N. R. Karnati, K.-S. Lee, J. E. Carletta, and R. J. Veillette, "A power-efficient polyphase sharpened CIC filter for sigma-delta ADCs," in *Proceedings of the 54th IEEE International Midwest Symposium on Circuits and Systems (MWSCAS 2011)*, Seoul, Korea, August 2011.

D. R. Desai, F. H. Hassan, R. J. Veillette, *et al.*, "An analog logarithmic number system subtractor for edge detection in logarithmic CMOS image sensors," in *Conference on Sensors, Cameras, and Systems for Industrial, Scientific, and Consumer Applications XII*, San Francisco, CA, January 25-27, 2011.

J. L. Adams, R. J. Veillette, and T. T. Hartley, "Estimates of conjugate-order Hankel norms," IFAC FDA 2010, Extremadura, Spain, October 2010.

J. L. Adams, R. J. Veillette, and T. T. Hartley, "Compactness of the Hankel operator for a class of conjugate-order systems," IFAC FDA 2010, Extremadura, Spain, October 2010.

D. R. Desai, J. E. Carletta, R. J. Veillette, F. Hassan, "Design of an accurate min-max current selector," in *Proceedings of the 53rd IEEE International Midwest Symposium on Circuits and Systems (MWSCAS 2010)*, Seattle, WA, August 2010. **[5 citations as of Aug 2019]**

M. L. R. Vatte, F. Hassan, J. E. Carletta, and R. J. Veillette, "Image sensor readout circuitry supporting the analog computation of large vertical surrounds," in *Proceedings of the 53rd IEEE International Midwest Symposium on Circuits and Systems (MWSCAS 2010)*, Seattle, WA, August 2010. **[2 citations as of Aug 2019]**

P. Namburu, R. J. Veillette, J. E. Carletta, M. Ward, "A temperature-insensitive gate-controlled weighted current digital-to-analog converter," in *Proceedings of the 53rd IEEE International Midwest Symposium on Circuits and Systems (MWSCAS 2010)*, Seattle, WA, August 2010. **[4 citations as of Aug 2019]**

J. L. Adams, R. J. Veillette, and T. T. Hartley, "Conditions for stable and causal conjugate-order systems," *IEEE International Symposium on Industrial Electronics (ISIE 2010)*, Bari, Italy, July 4-7, 2010. **[2 citations as of Aug 2019]**

G. Pasquesoone, I. Husain, and R. J. Veillette, "Bridged-T speed controller for high performance switched reluctance motor drives," *25th Annual IEEE Applied Power Electronics Conference and Exposition (APEC 2010)*, Palm Springs, CA, February 21-25, 2010. **[2 citations as of Aug 2019]**

L. Du, J. Carletta, R. Veillette, and J. Zhe, "A magnetic Coulter counting device for wear debris detection in lubrication oil," paper no. IMECE2009-10967, in *ASME IMECE 2009 Proceedings*, Lake Buena Vista, Florida, November 2009. **[2 citations as of Aug 2019]**

J. L. Adams, R. J. Veillette, T. T. Hartley, "Estimation of the Hankel Singular Values for Fractional-order Systems," *Proc. ASME DETC*, San Diego, CA, September 2009.

S. Khorbotly, J. E. Carletta, and R. J. Veillette, "A methodology for implementing pipelined fixed-point infinite impulse response filters," in *Proceedings of the 41st Southeastern Symposium on System Theory*, Tullahoma, TN, March 15-17, 2009, pp. 280-284.

[3 citations as of Aug 2019]

J. L. Adams, T. T. Hartley, and R. J. Veillette, "Estimation of the Hankel norm for fractional-order systems," in *Proceedings of the 3rd IFAC Workshop on Fractional Differentiation and its Applications*, Ankara, Turkey, November 2008.

Yang Wang, Tom T. Hartley, Carl F. Lorenzo, Jay L. Adams, Joan E. Carletta, and Robert J. Veillette, "Modeling ultracapacitors as fractional-order systems," in *Proceedings of the 3rd IFAC Workshop on Fractional Differentiation and its Applications*, Ankara, Turkey, November 2008.

[15 citations as of Aug 2019]

Yang Wang, Joan E. Carletta, Tom T. Hartley, and Robert J. Veillette, "An Ultracapacitor Model Derived Using Time-dependent Current Profiles," in *Proceedings of the 51st Midwest Symposium on Circuits and Systems*, Knoxville, TN, August 10-13, 2008, pp. 726-729.

[20 citations as of Aug 2019]

Jared A. Hicks, Robert Gruich, Alex Oldja, Dustin Myers, Tom T. Hartley, Robert Veillette, and Iqbal Husain, "Ultracapacitor Energy management for a series-parallel 2-by-2 hybrid electric vehicle," NASA Aerospace Battery Workshop, Huntsville, Alabama, November 2007.

[8 citations as of Aug 2019]

F. Sevil, R. Veillette, I. Husain, N. Ida, H. Klode, and T. Baudendistel, "Analysis of a flexible cylindrical structure for the design of a harmonic motor drive," in *Conference record of the IEEE Industrial Applications Society 42nd Annual Meeting*, New Orleans, September 2007, pp. 510-517.

[1 citation as of Jul 2017]

S. M. N. Hasan, S. Chanda, I. Husain, R.J. Veillette, and J. E. Carletta, "A PM brushless DC starter/generator system for a series/parallel 2×2 hybrid electric vehicle," in *Conference record of the IEEE Industrial Applications Society 42nd Annual Meeting*, New Orleans, September 2007, pp. 1686-1693. **[4 citations as of Jul 2017]**

J. A. Hicks, R. Gruich, A. Oldja, D. Myers, T. T. Hartley, R. Veillette, and I. Husain, "Ultracapacitor energy management and controller developments for a series-parallel 2-by-2 hybrid electric vehicle," *IEEE Vehicle Power and Propulsion Conference 2007*, Arlington, Texas, September 9-12, 2007, pp. 328-335.

J. E. Carletta, R. J. Veillette, F. W. Krach, and Z. Fang, "Determining Appropriate Precisions for Signals in Fixed-Point IIR Filters," *Proceedings of the IEEE/ACM Design Automation Conference*, Anaheim, California, June 2003, pp. 656-661. **[50 citations as of Aug 2019]**

F. W. Krach, B. P. Frackelton, J. E. Carletta, and R. J. Veillette, "FPGA-based implementation of digital control for a magnetic bearing," *Proceedings of the 2003 American Control Conference*, Denver, Colorado, June 2003. **[31 citations as of Aug 2019]**

J. E. Carletta, R. J. Veillette, F. W. Krach, and Z. Fang, "Design Methodology for Digital Fixed-Point Approximations to Continuous-Time IIR Filters," ACM International Symposium on Field Programmable Gate Arrays, Monterey, California, February 2003 (poster presentation).

Y. Wu, R. J. Veillette, D. H. Mugler, and T. T. Hartley, “Stability analysis of wavelet-based controller design,” in *Proceedings of the 2001 American Control Conference*, Arlington, VA, June 2001. [4 citations as of Aug 2019]

D. C. Deckler, R. J. Veillette, M. J. Braun, and F. K. Choy, “Modeling and control design for a controllable bearing system,” in *Proceedings of the 39th IEEE Conference on Decision and Control*, Sydney, Australia, December 2000, pp. 4066-4071. [14 citations as of Aug 2019]

D. C. Deckler, R. J. Veillette, F. K. Choy, and M. J. Braun, “Modeling of a controllable tilting pad bearing,” in *Proceedings of the 1997 American Control Conference*, Albuquerque, NM, June 1997, vol. 5, pp. 3416-3420. [13 citations as of Aug 2019]

S. M. Immel and R. J. Veillette, “Reliable sampled-data control,” accepted for publication in the *Proceedings of the 35th IEEE Conference on Decision and Control*, Kobe, Japan, December 1996. Paper withdrawn.

F. K. Choy, R. J. Veillette, V. Polyshchuk, M.J. Braun, and R. C. Hendricks, “Quantification of gear-tooth damage via optimal tracking of vibration signatures,” in *Proceedings of the 6th International Symposium on Transport Phenomena and Dynamics of Rotating Machinery*, Honolulu, HI, Feb 25-29, 1996, vol. 1, pp. 503-513.

F. K. Choy, R. J. Veillette, V. Polyshchuk, M. J. Braun, J. J. Zakrajsek, D. P. Townsend, and R. F. Handschuh, “Identification of damage in gear teeth using vibration signatures,” accepted for publication in the *Proceedings of the 31st AIAA Joint Propulsion Conference*, San Diego, CA, July 10-12, 1995.

M. J. Braun, F. K. Choy, M. Dzodzo, J. Hsu, R. Veillette, and D. Deckler, “A theoretical and numerical development of the concept of the active control foil bearing (ACFB),” paper no. 95-GT-172, presented in the 1995 ASME TurboExpo (International Gas Turbine and Aeroengine Congress and Exposition), Houston, TX, June 1995. [3 citations as of Aug 2019]

S.-W. Nam and R. J. Veillette, “Reduced-order controller design using projective controls with output-feedback reference,” in *Proceedings of the 32nd IEEE Conference on Decision and Control*, San Antonio, TX, December 1993, pp. 2925-2926.

R. J. Veillette and S.-W. Nam, “Optimal observers for decentralized control,” in *Proceedings of the 1993 American Control Conference*, San Francisco, CA, June 1993, pp. 2391-2395. [3 citations as of Aug 2019]

Arvind Srinivasan, C. Batur, R. Veillette, B. Rosenthal, and W. Duval, “Projective control design for multi-zone crystal growth furnace,” in *Proceedings of the 1993 American Control Conference*, San Francisco, CA, June 1993, pp. 3018-3022.

R. J. Veillette, “Reliable state feedback and reliable observers,” in *Proceedings of the 31st IEEE Conference on Decision and Control*, Tucson, AZ, December 1992, pp. 2898-2903. [24 citations as of Aug 2019]

J. V. Medanić, W.R. Perkins, and R. J. Veillette, “Design of reliable control systems with guaranteed disturbance rejection performance,” in the *First IFAC Symposium on Design Methods for Control Systems*, Zurich, 1991, pp. 348-353. [5 citations as of Aug 2019]

R. J. Veillette, “Projective controls for 2-DOF quarter-car suspension,” in *Proceedings of the 1991 American Control Conference*, Boston, MA, June 1991, pp. 421-426.

[2 citations as of Aug 2019]

R. J. Veillette, J. V. Medanić, and W.R. Perkins, “Design of reliable control systems,” in *Proceedings of the 29th IEEE Conference on Decision and Control*, Honolulu, HI, December 1990, pp. 1131-1136. **[1 citation as of Jul 2017]**

R. J. Veillette, J. V. Medanić, and W. R. Perkins, “Computation of families of H-infinity control laws,” in *Proceedings of the 29th IEEE Conference on Decision and Control*, Honolulu, HI, December 1990, pp. 2630-2631.

R. J. Veillette, J. V. Medanić, and W.R. Perkins, “Robust control of uncertain systems by decentralized control,” in the 1990 *IFAC World Congress*. **[7 citations as of Aug 2019]**

J. V. Medanić, W. R. Perkins, and R. J. Veillette, “On the design of reliable control systems,” in *Proceedings of the 1990 American Control Conference*, San Diego, CA, June 1990, pp. 3030-3035. **[17 citations as of Aug 2019]**

R. J. Veillette, J. V. Medanić, and W. R. Perkins, “Robust stabilization and disturbance rejection for systems with structured uncertainty,” in *Proceedings of the 28th IEEE Conference on Decision and Control*, Tampa, FL, December 1989, pp. 936-941. **[54 citations as of Aug 2019]**

R. J. Veillette and J. V. Medanić, “An algebraic Riccati inequality and H_∞ -norm bounds for stable systems,” in *Proceedings of the Workshop on the Riccati Equation in Control, Systems, and Signals*, Como, Italy, June 26-28, 1989, pp. 63-68. **[6 citations as of Aug 2019]**

Technical Reports:

M. S. Islam, I. Husain, R. J. Veillette, and C. Batur, “Design and performance analysis of sliding-mode observers for sensorless operation of switched reluctance motors,” Publication DSP-136, Delphi Saginaw Steering Systems, July 2001.

T. T. Hartley, R. J. Veillette, J. A. De Abreu Garcia, A. Chicatelli, and R. Hartmann, “To Err is Normable: The Computation of Frequency-Domain Error Bounds from Time-Domain Data,” NASA Contractor Report 1998-208516, NASA Lewis Research Center, August 1998.

F. K. Choy, R. J. Veillette, V. Polyshchuk, and M. J. Braun, “Quantification of Gear Tooth Damage by Optimal Tracking of Vibration Signatures,” NASA Technical Memorandum 107100, October 1997. Also published as Technical Support Package LEW-16454.

R. J. Veillette, J. A. DeAbreu, and T. T. Hartley, “Preliminary study for a high-speed weighing system,” confidential report to Eveready Battery Co., Inc., July 1994.

R. J. Veillette, “Reliable control design for a reusable rocket engine,” report on Summer work in *NASA-OAI Collaborative Aerospace Research and Fellowship Program at Lewis Research Center*, August 1993.

R. J. Veillette and S. Garg, “A modified approach to controller partitioning,” NASA Technical Memorandum 106167, NASA Lewis Research Center, May 1993.

R. J. Veillette, "A study of controller partitioning," report on Summer work in *NASA-ASEE Summer Faculty Fellowship Program at Lewis Research Center*, August 1992.

R. J. Veillette, "Controller partitioning for decentralized integrated flight/propulsion control design," report on Summer work in *NASA-ASEE Case-Lewis Summer Faculty Fellowship Program*, August 1991.

Abstracts in Journals:

F. K. Choy, R. J. Veillette, V. Polyshchuk, and M. J. Braun, "Quantification of Gear Tooth Damage by Optimal Tracking of Vibration Signatures," *NASA Tech Briefs*, MCTB p. 7b, October 1997.

R. J. Veillette, "Reliable State-feedback Control Systems," *The Ohio Journal of Science*, 92(2), p. 52, April 1992.

UNPUBLISHED TECHNICAL PRESENTATIONS: (partial list)

"Insulation Fault Detection in Underground Power Cables: A Feedback Control Application," presented to Cleveland Control System Society, Cleveland State University, April 5, 2018.

"A Controllable Tilting-Pad Bearing," presented to GE Aircraft Engines, Cincinnati, OH, October 15, 2003.

"Simulation of a Controllable Bearing and Associated Strategies," presented at the STLE annual meeting, New York, April 30, 2003.

"Modeling and Control of a Tilting-Pad Bearing," presented to the Department of Electrical and Computer Engineering, Cleveland State University, January 25, 2002.

"Modeling and Control of a Tilting-Pad Bearing," presented at the Workshop on Advances in Systems and Control, Urbana, IL, September 25, 1999.

"State-Variable Descriptions and Optimal Control," presented to Math Department Graduate Seminar, March 5, 1999.

"Frequency-Domain Analysis and Design of Control Systems," presented to Math Department Graduate Seminar, February 26, 1999.

"Controllable Bearings and Seals," presented to Rolls-Royce Allison, Mechanical Systems Technology Group, Indianapolis, IN, August 4, 1998.

"Let's Talk H_{∞} ," presented to BF Goodrich Advanced Technology Group, Brecksville, OH, June 26, 1998.

"Let's Talk H_{∞} ," presented to Aircraft Braking Systems, Akron, OH, June 10, 1998.

"Identification and Prognostication of Mechanical Failures in Turbomachinery," with F.K. Choy, presented to Army group at NASA Lewis Research Center, September 20, 1994.

"A High-speed Weighing System Using Voice-coil Actuation," presented to Eveready Battery Co., Westlake, OH, August 2, 1994.

“Reliable Control Design for a Reusable Rocket Engine,” presented to the Advanced Controls Technology Branch, NASA Lewis Research Center, August 16, 1993.

“Investigation of an Approach to Controller Partitioning,” presented to the Advanced Controls Technology Branch, NASA Lewis Research Center, August 6, 1992.

“Reliable State Feedback and Reliable Observers,” presented to the Electrical Engineering Department, Cleveland State University, May 15, 1992.

“Reliable Stability by State Feedback,” presented at the *101st Annual Meeting of the Ohio Academy of Science*, Akron, OH, May 2, 1992.

“Control Systems Design Methodologies,” presented at the Industrial Control Engineering Workshop, University of Akron, May 1, 1992.

“A View of Controller Partitioning for Decentralized IFPC Design,” presented to the Advanced Controls Technology Branch, NASA Lewis Research Center, August 5, 1991.

“Projective Controls for Structurally Constrained Feedback,” presented to the Advanced Controls Technology Branch, NASA Lewis Research Center, July 25, 1991.

“Computation of Families of H_∞ Control Laws,” with J.V. Medanić and W.R. Perkins, presented at the *Eighth Annual OSU Control Workshop*, Department of Electrical Engineering, The Ohio State University, Columbus, Ohio, April 1990.

PATENTS

J Zhe, L. Du, J. E. Carletta, R. J. Veillette, “Metal wear detection apparatus and method employing microfluidic electronic device,” U.S. Patent No. 8522604-B2, September 3, 2013.

R. J. Veillette, “Electromechanically Controlled Load Cell,” U.S. Patent No. 5,850,057, December 15, 1998.

FUNDED RESEARCH:

I have participated in bringing to the university more than \$4,965,000. (My share = \$833,000)

J. A. De Abreu Garcia, Y. Sozer, N. Ida, R. Veillette, J. Carletta, and K.-S. Lee, "Smart Sensors and Sensor System Design, Development, and Commercialization" (Project 1: Smart Sensor Platform for the Electric Utility Industry Infrastructure), \$1,744,192 from Ohio State Development Department, Innovation Platform Program (IPP), 2015. (My share = \$174,419)

R. J. Veillette, T. T. Hartley, and J. E. Carletta, "Real-Time Fuel-Feed Simulation for a Turbine Engine," \$23,800 from Parker Hannifin, Spring 2013. (My share = \$7,933)

J. A. De Abreu Garcia, Y. Sozer, R. Veillette, J. Carletta, and T. Hartley, "Clean Technology Sensors Support for Ohio Companies to Add Value to Their Products and Help Move Them to the Market Place at an Accelerated Pace," \$1,670,000 from State of Ohio, Third Frontier Project, 2011. (My share = \$167,000)

J. Zhe, J. E. Carletta, and R. J. Veillette, "A High Throughput Microfluidic Sensor for Real Time Health Monitoring of Rotating Machinery," \$270,000 from National Science Foundation, Spring 2010. (My share = \$90,000)

J. E. Carletta, K.-S. Lee, and R. J. Veillette, "Absolute Magnetic Encoder Commercialization," \$313,140 from Avtron, Spring 2010. (My share = \$104,380)

S. I. Hariharan and R. J. Veillette, "Polarimetric system modeling," \$35,000 from Lockheed Martin, Fall 2007. (My share = \$17,500)

I. Husain, J. E. Carletta, and R. J. Veillette, "Electromagnetic design and controllers for switch reluctance machines," \$161,882 from SPM Group, Fall 2007. (My share = \$53,961)

R. J. Veillette, M. E. Elbuluk, and I. Husain, "Solectria E-10 Conversion to Plug-in Hybrid, Phase I," \$19,581 from FirstEnergy Service Co., Fall 2005. (My share = \$6,527)

I. Husain, N. Ida, and R. J. Veillette, "Harmonic Motors for Electromechanical Brakes and Actuators," \$111,221 from Ohio Aerospace Institute, Fall 2005. (My share = \$37,074)

J. E. Carletta and R. J. Veillette, "Reconfigurable computing for real-time control systems," \$201,910 from National Science Foundation, 2001. (My share = \$100,955)

M. J. Braun, F. K. Choy, N. Ida, J. Padovan, and R. J. Veillette (consortium including The University of Toledo, The University of Akron, Case Western Reserve University, Cleveland State University, and The Ohio State University), "University Laboratories in Tribology Research and Applications (ULTRA)," The Ohio Board of Regents Investment Fund Competition, \$350,000 from OBR for UA involvement, 1996. (My share = \$50,000)

J. A. De Abreu, R. J. Veillette, and T. T. Hartley, "Advanced Training for Industrial Control Engineers: Applications of Control System Software," \$9,900 from Goodyear Tire and Rubber Co., Akron, OH, Fall 1994-Spring 1995. (My share = \$3,300)

R. J. Veillette, J. A. De Abreu, T. T. Hartley, "Feasibility Study for a High-Speed Weighing System," \$2,000 from Eveready Battery Company, Westlake, OH, Spring 1994.
(My share = \$667)

J. A. De Abreu, R. J. Veillette, T. T. Hartley, "Training in Control System Design for Industry Application," \$3,024 from Eveready Battery Company, Westlake, OH, Fall 1993.
(My share = \$1,008)

T. T. Hartley, J. A. De Abreu, and R. J. Veillette, "Advanced Training for Industrial Control Engineers: Applications of Advanced Control System Design," \$9,900 from Goodyear Tire and Rubber Co., Akron, OH, Spring 1992. (My share = \$3,300)

R. J. Veillette and T. T. Hartley, "Advanced Training for Industrial Control Engineers: Robust and Optimal Control," \$9,900 from Goodyear Tire and Rubber Co., Akron, OH, Spring 1991.
(My share = \$4,950)

T. T. Hartley, J. A. De Abreu, and R. J. Veillette, "Applications of Advanced Control Computing," \$30,000 hardware donation from Integrated Systems, Inc., January 1991.
(My share = \$10,000)