

John R. Reisel

Addresses:

Work

Mechanical Engineering Department
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Education: **Bachelor of Mechanical Engineering**

Minor: Mathematics

Villanova University, Villanova, PA - 1989

M.S. - Mechanical Engineering

Purdue University, West Lafayette, IN - 1991

Thesis Title: *Laser-saturated fluorescence measurements of nitric oxide in atmospheric-pressure flames.*

Ph.D. - Mechanical Engineering

Purdue University, West Lafayette, IN - 1994

Dissertation Title: *Laser-induced fluorescence measurements and modeling of nitric oxide in high-pressure premixed flames.*

Graduate Advisor: Prof. Normand M. Laurendeau

Fields of Study: Combustion, thermodynamics, fluid mechanics, optics

Work Experience:

August 2014 – Present Professor
Mechanical Engineering Department
College of Engineering and Applied Science
University of Wisconsin-Milwaukee

June 2001 – August 2014 Associate Professor
Mechanical Engineering Department
College of Engineering and Applied Science
University of Wisconsin-Milwaukee

August 1994-June 2001 Assistant Professor
 Mechanical Engineering Department
 College of Engineering and Applied Science
 University of Wisconsin-Milwaukee

May-August 1994 Post-Doctoral Research Associate
 Purdue University
 School of Mechanical Engineering

August 1989 - May, 1994 Graduate Research Assistant
 Purdue University
 School of Mechanical Engineering

Professional Societies: American Society for Engineering Education
 American Society of Mechanical Engineers
 The Combustion Institute
 European Society for Engineering Education
 Society of Automotive Engineers

Professional Registration: Professional Engineer
 State of Wisconsin

Honors and Awards:

2019 ASEE-New Engineering Educators Division Best Paper Award – 3rd place

2010 ASEE-New Engineering Educators Division Best Paper Award – 2nd place

2010 CEAS – Top 10 Research Expenditures 2009-10 (award only given in 2009 and 2010)

2005 UWM Distinguished Undergraduate Teaching Award

2000 UWM-CEAS Outstanding Teaching Award

1998 SAE Ralph R. Teetor Educational Award

Member of the CEAS Millionaire's Club (for receiving more than \$1,000,000 in external grants)

Purdue University's nominee for 1995 CGS/UMI Dissertation Award in Mathematical / Physical Sciences / Engineering

1989 GE Foundation Graduate Fellowship

1989 Dean's Award for Academic Excellence (Villanova University)

Research Interests:

- Engineering education (impacts of undergraduate research participation, impacts of early-career interventions; innovations in educational delivery)
- Renewable energy (particularly ethanol production, implementation of renewable energy systems in existing facilities, and water current processes)
- Energy usage modeling
- Energy efficiency of industrial processes
- Internal-combustion engines (particularly air pollution minimization)
- Laser diagnostics of combustion processes
- Combustion chemical kinetics

COURSES TAUGHT

Undergraduate:

ME 301	Basic Engineering Thermodynamics
ME 302	Applied Engineering Thermodynamics
ME 321	Basic Heat Transfer
ME 390	Design Projects
ME 402	Thermo-Fluids Engineering
ME 432	Internal-Combustion Engines
ME 434	Air-Conditioning System Design
ME 435	Powerplant Theory and Design
ME 490	Topics in Mechanical Engineering: Applied Optics in Engineering (ME451)
ME 490	Topics in Mechanical Engineering: Aerodynamics
ME 490	Topics in Mechanical Engineering: Energy: Sources, Uses, and Economics
ME 699	Independent Study
EAS 497	Study Abroad
HON 352:	Honors Seminar in the Natural Sciences – Energy: Sources, Uses and Economics

Graduate:

ME 702	Advanced Engineering Thermodynamics
ME 703	Principles of Combustion
ME 999	Advanced Independent Study

COURSE EVALUATIONS

Below are my overall average teacher evaluation ratings, from the student course evaluations, listed by semester and course. The scale used is 1 - 5, with 5.0 being the best rating.

Spring 2019:	ME 402: 4.52	ME 434: 4.57	HON 352: 4.91
Fall 2018:	ME 402: 4.73	ME 435: 4.76	
Spring 2018:	ME 402: 4.72	ME 432: 4.73	
Fall 2017:	ME 301: 4.62	ME 402: 4.72	
Spring 2017:	ME 402: 4.71	ME 435: 4.71	
Fall 2016:	ME 402: 4.59	ME 432: 4.36	
Spring 2016:	ME 402: 4.55	HON 352: 4.66	
Fall 2015:	ME 402: 4.55	ME 435: 4.70	
Spring 2015:	ME 402: 4.27	ME 432: 4.04	
Fall 2014:	ME 301: 4.36	ME 402: 4.69	
Spring 2014:	ME 402: 4.82	ME 435: 4.66	
Fall 2013:	ME 402: 4.79	ME 432: 4.67	
Spring 2013:	ME 402: 4.58	ME 490: 4.61	
Fall 2012:	ME 402: 4.79	ME 435: 4.75	
Spring 2012:	ME 402: 4.58	ME 432: 4.72	
Fall 2011:	ME 301: 4.72	ME 301: 4.44	
Spring 2011:	ME 402: 4.38	ME 435: 4.50	
Fall 2010:	ME 402: 4.52	ME 432: 4.50	
Spring 2010:	ME 301: 4.51	ME 402: 4.43	
Fall 2009:	ME 435: 4.48	ME 702: 4.64	
Spring 2009:	ME 402: 4.15	ME 432: 3.90	
Spring 2008:	ME 402: 4.70	ME 435: 4.54	
Fall 2007:	ME 432: 4.25	ME 702: 4.64	
Spring 2007:	ME 301: 4.53	ME 402: 4.44	
Fall 2006:	ME 301: 4.36	ME 435: 4.57	
Spring 2006:	ME 402: 4.78	ME 432: 4.58	
Fall 2005:	ME 301: 4.47	ME 434: 4.70	
Spring 2005:	ME 402: 4.59	ME 435: 4.83	
Fall 2004:	ME 301: 4.71	ME 432: 4.39	
Spring 2004:	ME 402: 4.21	ME 703: 4.77	
Fall 2003:	ME 301: 4.42	ME 435: 4.53	
Spring 2003:	ME 301: 4.46	ME 432: 4.11	
Fall 2002:	ME 301: 4.59	ME 435: 4.44	
Spring 2002:	ME 432: 3.97	ME 703: 4.93	
Fall 2001:	ME 301: 4.28	ME 435: 4.29	
Spring 2001:	ME 301: 4.40	ME 490: 4.37	
Fall 2000:	ME 302: 4.56	ME 432: 4.12	
Spring 2000:	ME 301: 4.51	ME 703: 4.58	
Fall 1999:	ME 301: 4.41	ME 435: 4.12	
Spring 1999:	ME 301: 4.63	ME 432: 4.47	
Fall 1998:	ME 435: 4.50		
Spring 1998:	ME 302: 4.27	ME 432: 4.05	
Fall 1997:	ME 301: 4.60	ME 302: 4.45	
Spring 1997:	ME 302: 4.34	ME 435: 4.46	
Fall 1996:	ME 301: 4.24	ME 432: 3.76	
Summer 1996:	ME 301: 4.55		

Spring 1996:	ME 301: 3.52	ME 490: 3.95
Fall 1995:	ME 302: 4.41	ME 702: 4.15
Spring 1995:	ME 301: 4.45	
Fall 1994:	ME 321: 3.87	

Ph.D. DISSERTATIONS DIRECTED:

Arash Kialashaki, Ph.D. Dissertation: *Evaluation and Forecast of Energy Consumption in Different Sectors of the United States Using Artificial Neural Networks*. Mechanical Engineering Department, University of Wisconsin-Milwaukee, December 2014.

Marissa R. Jablonski, Ph.D. Dissertation: *Sustainable Decolorization of Reactive and Acid Dye Wastewater Using Photo-Fenton Oxidation both with and without Biodegradation: Laboratory and Field Studies*. Civil and Environmental Engineering Department, University of Wisconsin-Milwaukee, May 2015.

M.S. THESES DIRECTED:

Damon F. Bresenham, M.S. Thesis: *An Assessment of Proposed Spindt Method Expansions for Use with Highly Oxygenated Fuels in Small Utility Engine Emissions Testing Applications*. Mechanical Engineering Department, University of Wisconsin-Milwaukee, August 1998.

Kenneth B. Jordan, M.S. Thesis: *Comparison of Detailed Chemical Kinetics Mechanisms for Modeling Nitric Oxide Formation in Premixed Ethane Flames*. Mechanical Engineering Department, University of Wisconsin-Milwaukee, December 2000.

Diego Caceres, M.S. Thesis: *Exhaust Emissions Deterioration over the Life Cycle of Small Utility Engines*. Mechanical Engineering Department, University of Wisconsin-Milwaukee, April 2001.

Mikhail Kremer, M.S. Thesis: *Theoretical Study of the Effect of Atmospheric Conditions on Air Compressor Performance*. Mechanical Engineering Department, University of Wisconsin-Milwaukee, April 2001. (co-directed with Dr. K.J. Renken)

David M. Leckman, M.S. Thesis: *Synthetic Lubricant Type and Atmospheric Conditions Affecting Power Consumption Measurements of a Rotary Screw Air Compressor*. Mechanical Engineering Department, University of Wisconsin-Milwaukee, May 2004 (co-directed with Dr. K.J. Renken)

Thomas J. Walczak, M.S. Thesis: *Induction Water Injection of a Spark Ignition Internal Combustion Outboard Marine Engine*. Mechanical Engineering Department, University of Wisconsin-Milwaukee, December 2005.

Nicholas J. Doll, M.S. Thesis: *Effects of Aging on Catalysts on Emissions for Small Engines*. Mechanical Engineering Department, University of Wisconsin-Milwaukee, August 2006.

Santha K. Ravi, M.S. Thesis: *Investigation of the Effects of Inlet Flow Velocity on the Forces Experienced by a Small Engine Catalytic Converter Using Computational Fluid Dynamics*. Mechanical Engineering Department, University of Wisconsin-Milwaukee, December 2008.

Sourabh Kumar, M.S. Thesis: *Modeling of Energy Usage for the Production of Corn Ethanol Using Wind and Solar Energy*. Mechanical Engineering Department, University of Wisconsin-Milwaukee, May, 2009.

Elizabeth A. Ehrke, M.S. Thesis: *Modeling Energy Production of Solar Thermal Systems and Wind Turbines for Installation at Corn Ethanol Plants*. Mechanical Engineering Department, University of Wisconsin-Milwaukee, December 2012.

Will R. Didier, M.S. Thesis: *Development and Validation of a Mathematical Model for Predicting the Performance of Rotary Hammer Drills*. Mechanical Engineering Department, University of Wisconsin-Milwaukee, May 2013.

Sulkeha Tamveda, M.S. Thesis: *Modeling the Feasibility of Corn Stover Combustion as a Heat Source at Corn Ethanol Plants*. Mechanical Engineering Department, University of Wisconsin-Milwaukee, December 2015.

Abhinav Ravi, M.S. Thesis: *Transient Analysis of a Liquid-to-Refrigerant Heat Exchanger to Provide Temporary High Performance In an Automotive Vehicle*. Mechanical Engineering Department, University of Wisconsin-Milwaukee, December 2018.

M.S. NON-THESIS OPTION STUDENTS ADVISED

Nachiketh Chandran. Mechanical Engineering Department, University of Wisconsin-Milwaukee, May 2011

Arash Kialashaki. Mechanical Engineering Department, University of Wisconsin-Milwaukee, December 2011

Jacob Zimmerman. Mechanical Engineering Department, University of Wisconsin-Milwaukee, December 2015

Zachary Fleischmann, Mechanical Engineering Department, University of Wisconsin-Milwaukee, December 2016

Ashutosh Sabharwal, Mechanical Engineering Department, University of Wisconsin-Milwaukee, May 2017

Michael Scott, Mechanical Engineering Department, University of Wisconsin-Milwaukee, May 2017

BOOKS PUBLISHED

1. J.R. Reisel (2015). *Principles of Engineering Thermodynamics*. Cengage Learning, Boston, MA. ISBN: 978-1-285-05647-0.
2. J.R. Reisel (2010). *Passing the Students' Test: Simple Techniques for Becoming a Good Engineering or Science Teacher*. ISBN: 978-1-453-89417-0. Publisher: CreateSpace.

REFEREED PUBLICATIONS:

Journal Publications:

1. E. Ehrke and J.R. Reisel (2018). Modeling the Feasibility of Using Solar Thermal Systems for Meeting the Heating Requirements at Corn Ethanol Production Facilities. *J. of Energy*, Volume 2018, Article ID 6436272. <https://doi.org/10.1155/2018/6436272> .
2. L. Cançado, J.R. Reisel, and C.M. Walker (2018). Impact of First-Year Study Groups on the Retention and Graduation of Engineering Students. *Int. J. of Mathematical Education in Science & Technology*, **49**(6): 856-866. doi:10.1080/0020739X.2017.1423120
3. L. Cançado, J.R. Reisel, and C.M. Walker (2018). Impacts of a Summer Bridge Program in Engineering on Student Retention and Graduation. *J. STEM Education: Innovations and Research* **19**(2): 26-31.
4. M.R. Jablonski, H.B. Ranicke, A. Qureshi, H. Purohit, J.R. Reisel, and K. Satyanarayana (2016). Low-Cost Decolorization of High Concentration Acid Dye Baths using Photo-Fenton Oxidation and Filtration both with and without Biodegradation. *J. Fashion Technol Textile Eng.* **4**:3. doi 10.4172/2329-9568.1000138.
5. M. Jablonski, H.B. Ranicke, A. Qureshi, H. Purohit, J.R. Reisel, and K. Satyanarayana (2016). Novel Photo-Fenton Oxidation with Sand and Carbon Filtration of High Concentration Reactive Dyes both with and without Biodegradation. *Journal of Textile Science & Engineering.* **6**(2):251 doi:10.4172/2165-8064.1000251

6. J.R. Reisel, M. Jablonski, E. Munson, and H. Hosseini (2014). Peer-led Team Learning in Mathematics Courses for Freshman Engineering and Computer Science Students. *Journal of STEM Education: Innovations and Research*, **15**(2): 7-15.
7. A. Kialashaki, and J.R. Reisel (2014). Development and Validation of Artificial Neural Network Models of the Energy Demand in the Industrial Sector of the United States. *Energy* **76**: 749-760.
8. A. Kialashaki and J.R. Reisel (2014). Forecasting United States' Energy Demand of Industrial Sector Using Artificial Neural Networks. *International Journal of Energy and Statistics* **2**: 207-226.
9. A. Kialashaki and J.R. Reisel (2013). Modeling of the Energy Demand of the Residential Sector in the United States Using Regression Models and Artificial Neural Networks. *Applied Energy* **108**: 271-280.
10. M.R. Jablonski, S. Shaligram, A. Qureshi, H. Purohit, J. Reisel, and R. El-Hajjar. (2013). Degradation Kinetics of Resorcinol by Enterobacter Cloacae Isolate. *African Journal of Microbiology Research* **7**: 3632-3640.
11. J.R. Reisel, M. Jablonski, H. Hosseini, and E. Munson (2012). Assessment of factors impacting success for incoming college engineering students in a summer bridge program. *Int. J. of Mathematical Education in Science & Technology*, **43**: 421-433.
12. E. Mohseni-Languri, H. Taherian, K. Hooman, and J.R. Reisel (2011). Enhanced Double-Pass solar Air Heater with and without Porous Medium. *Int. J. of Green Energy* **8**: 643-654
13. S. Kumar and J.R. Reisel (2011). *Modeling of Energy Usage for the Refining of Ethanol from Corn*. *Int. J. of Sustainable Energy* **30**: 98-109.
14. E. Mohseni-Languri, H. Taherian, R. Masoodi, and J.R. Reisel (2009). An Energy and Exergy Study of a Solar Thermal Air Collector. *Thermal Science* **13**: 205-216.
15. N.J. Doll and J.R. Reisel (2007). Catalyst Deterioration over the Lifetime of Small Utility Engines. *J. Air & Waste Man. Assoc.* **57**:1223-1233.
16. D. Caceres, J.R. Reisel, A. Sklyarov, and A. Poehlman (2003). Exhaust emission deterioration and combustion chamber deposit composition over the life cycle of small utility engines. *ASME J. Eng. Gas Turbines and Power.* **125**, 358-364.

17. J.R. Reisel (2000). Effects of mass flow rate and initial temperature on predictions of NO and OH from detailed chemical kinetics models. *Combust. Sci. and Tech.* **160**, 47-63.
18. J.R. Reisel, T.A. Kellner, and K.F. Neusen (2000). Speciated hydrocarbon emissions in small utility engines. *J. Air & Waste Man. Assoc.* **50**, 522-528.
19. J.R. Reisel (2000). Modeling of nitric oxide formation in high-pressure premixed laminar ethane flames. *Combust. Flame* **120**, 233-241.
20. W.P. Partridge, Jr., J.R. Reisel, and N.M. Laurendeau (1999). Laser-saturated fluorescence measurements of nitric oxide in an inverse diffusion flame. *Combust. Flame* **116**, 282-290.
21. D.F. Bresenham, J.R. Reisel, and K.F. Neusen (1998). Spindt air-fuel ratio method generalization for oxygenated fuels. *SAE Paper No. 982054*. Also appeared in *SAE 1998 Transactions – Journal of Engines*.
22. J.R. Reisel (1998). Trends of NO formation in low-temperature hydrocarbon flames. *Combust. Flame* **112**, 275-277.
23. J.R. Reisel, C.D. Carter, and N.M. Laurendeau (1997). Measurements and modeling of OH and NO in premixed C₂H₆/O₂/N₂ flames at atmospheric pressure. *Energy & Fuels* **11**, 1092-1100.
24. T.K. Kim, B.J. Alder, J.R. Reisel, and N.M. Laurendeau (1996). Exhaust and in-situ measurements of nitric oxide for laminar partially premixed C₂H₆-air flames: effect of premixing level at constant burner tube flowrate. *Energy & Fuels*, **10**, 1060-1066.
25. M.S. Klassen, D.D. Thomsen, J.R. Reisel, and N.M. Laurendeau (1996). Laser-induced fluorescence measurements of nitric oxide formation in high-pressure premixed methane flames. *Combust. Sci. and Tech.* **110-111**, 229-247.
26. J.R. Reisel and N.M. Laurendeau (1995). Quantitative LIF measurements and modeling of nitric oxide in high-pressure C₂H₄/O₂/N₂ flames. *Combust. Flame* **101**, 141-152.
27. J.R. Reisel, W.P. Partridge Jr., and N.M. Laurendeau (1995). Transportability of a laser-induced fluorescence calibration for NO at high pressure. *J. Quant. Spectrosc. Radiat. Transfer* **53**, 165-178.
28. J.R. Reisel and N.M. Laurendeau (1994). Quantitative LIF measurements of nitric oxide in laminar high-temperature flames. *Energy & Fuels* **8**, 1115-1122.

29. J.R. Reisel and N.M. Laurendeau (1994). Laser-induced fluorescence measurements and modeling of nitric oxide formation in high-pressure flames. *Combust. Sci. and Tech.* **98**, 137-160.
30. J.R. Reisel, C.D. Carter, N.M. Laurendeau, and M.C. Drake (1993). Laser-saturated fluorescence measurements of nitric oxide in laminar, flat, C₂H₆/O₂/N₂ flames at atmospheric pressure. *Combust. Sci. and Tech.* **91**, 271-295.
31. J.R. Reisel, C.D. Carter, and N.M. Laurendeau (1993). Laser-induced fluorescence measurements of nitric oxide in laminar C₂H₆ /O₂ /N₂ flames at high pressure. *Combust. Flame* **92**, 485-489.
32. J.R. Reisel, C.D. Carter, and N.M. Laurendeau (1992). Einstein coefficients for rotational lines of the (0,0) band of the NO A²Σ⁺-X²Π system. *J. Quant. Spectrosc. Radiat. Transfer* **47**, 43-54.

Conference Proceedings:

33. J.R. Reisel (2019). Adding the Concept of Improving Product Value to a Design Project in a Course on Internal Combustion Engines. *Proceedings of the 2019 American Society for Engineering Education Annual Conference & Exposition*. Paper No. 24695, Tampa, FL.
34. J.R. Reisel (2019). Service at a Research University: A Veteran Faculty Member's Perspective for New Engineering Faculty. *Proceedings of the 2019 American Society for Engineering Education Annual Conference & Exposition*. Paper No. 26554, Tampa, FL.
35. J.R. Reisel (2018). Attacks on Tenure: An Engineering Professor's Experiences with Public Policy Actions Impacting Higher Education. *Proceedings of the 2018 American Society for Engineering Education Annual Conference & Exposition*. Paper No. 21124, Salt Lake City, UT.
36. J.R. Reisel (2017). Teaching to the Other Side of Campus: An Engineering Professor's Experience with an Honors College Course. *Proceedings of the 2017 American Society for Engineering Education Annual Conference & Exposition*. Paper No. 17769, Columbus, OH.
37. A.C. Sage and J.R. Reisel (2017). A Student-Developed Lesson Plan for a 4th-Grade Energy Module (Resource Exchange). *Proceedings of the 2017 American Society for Engineering Education Annual Conference & Exposition*. Paper No. 17963, Columbus, OH.
38. J.R. Reisel, L. Cancado, D. Mitrayani, and C.M. Walker (2016). Successful Undergraduate Research Experiences in Engineering: Student, Faculty, and

- Industrial Perspectives. *Proceedings of the 2016 American Society for Engineering Education Annual Conference & Exposition*. Paper No. 14409, New Orleans, LA
39. J.R. Reisel, L. Cancado, D. Mitrayani, and C.M. Walker (2015). Defining a Successful Undergraduate Research Experience in Engineering. *Proceedings of the 2015 American Society for Engineering Education Annual Conference & Exposition*. Paper No. 11108, Seattle, WA.
 40. A. Kialashaki and J.R. Reisel (2014). Transport Energy Demand Modeling of the United States Using Artificial Neural Networks and Multiple Linear Regression, *ASME 12th Fuel Cell Science, Engineering, and Technology Conference*, Paper No. ES-FuelCell2014-6447, Boston, MA.
 41. J.R. Reisel, M. Jablonski, A. Kialashaki, E. Munson, and H. Hosseini (2014). Analysis of the Impact of Participation in a Summer Bridge Program on Mathematics Course Performance by First-Semester Engineering Students *Proceedings of the 2014 American Society for Engineering Education Annual Conference & Exposition*. Paper No. 8492, Indianapolis, IN.
 42. J.R. Reisel (2013). Analysis of the Impact of Testing Frequency on Student Performance in a Basic Thermodynamics Course. *Proceedings of the 2013 American Society for Engineering Education Annual Conference & Exposition*. Paper No. 5686, Atlanta, GA.
 43. J.R. Reisel, M. Jablonski, and E. Munson (2013). A Study of the Impact of Peer-Led Team Learning on the First-Year Math Course Performance of Engineering Students. *Proceedings of the 2013 American Society for Engineering Education Annual Conference & Exposition*. Paper No. 5685, Atlanta, GA.
 44. J.R. Reisel (2012). Incorporating Public Policy Creation and Analysis Activities into a Mechanical Engineering Curriculum. *Proceedings of the ASME 2012 International Mechanical Engineering Conference & Exposition*, Paper No. IMECE2012-86371, Houston, TX.
 45. J.R. Reisel, M. Jablonski, L. Rineck, E. Munson, and H. Hosseini (2012). Analysis of Math Course Placement Improvement and Sustainability Achieved Through a Summer Bridge Program. *Proceedings of the 2012 American Society for Engineering Education Annual Conference & Exposition*. Paper No. AC 2012-2984, San Antonio, TX.
 46. J.R. Reisel, M. Jablonski, E. Munson, and H. Hosseini (2012). Analysis of the Impact of Formal Peer-Led Study Groups on First-Year Student Math Performance. *Proceedings of the 2012 American Society for Engineering Education Annual Conference & Exposition*. Paper No. AC 2012-2983, San Antonio, TX .

47. M. Jablonski and J.R. Reisel (2012). Sustainable International Development as a Process. *Proceedings of the 2012 American Society for Engineering Education Annual Conference & Exposition*. Paper No. AC 2012-4985, San Antonio, TX.
48. J.R. Reisel, L. Rineck, M. Jablonski, E. Munson, and H. Hosseini (2011). Evaluation of the Impacts of Math Course Placement Improvement Achieved Through a Summer Bridge Program. *Proceedings of the 2011 American Society for Engineering Education Annual Conference & Exposition*, Paper No. AC 2011-51, Session M548, Vancouver, BC.
49. M. Jablonski, J.R. Reisel, H. Hosseini, E. Munson, and L. Rineck (2011). Initial Evaluation of the Impacts of Math Study Groups on First-Year Student Course Success. *Proceedings of the 2011 American Society for Engineering Education Annual Conference & Exposition*, Paper No. AC 2011-243, Session M354, Vancouver, BC.
50. J.R. Reisel (2010). Gaining the Respect of Your Students: Fundamental Tips for New Engineering Teachers. *Proceedings of the 2010 American Society for Engineering Education Annual Conference & Exposition*, Paper No. AC 2010-230, Session 2475, 11 pages, Louisville, KY.
51. J.R. Reisel, M. Jablonski, H. Hosseini, and E. Munson (2010). Evaluation of Factors Affecting the Success of Improving Math Course Placement for Incoming Freshmen in a Summer Bridge Program. *Proceedings of the 2010 American Society for Engineering Education Annual Conference & Exposition*, Paper No. AC 2010-231, Session 1376, 9 pages, Louisville, KY.
52. M. Jablonski, C. Papadopoulos, and J.R. Reisel (2009). Building Trust During International Development Work: A Case Study of a Recent EWB Project. *Proceedings of the 2009 American Society for Engineering Education Annual Conference & Exposition*, Paper No. AC2009-1089, Session 1360, 6 pages, Austin, TX.
53. J.R. Reisel (2008). The Use of Undergraduate Students in a Long-Term Air Pollution Reduction Project. *Proceedings of the 2008 American Society for Engineering Education Annual Conference & Exposition*, Paper No. AC2008-204, Session 3451, 14 pages, Pittsburgh, PA.
54. C. Papadopoulos and J.R. Reisel (2008). Do Students in Summer Bridge Programs Successfully Improve Math Placement and Persist? A Meta-Analysis. *Proceedings of the 2008 American Society for Engineering Education Annual Conference & Exposition*, Paper No. AC2008-1623, Session 1565, 7 pages, Pittsburgh, PA.

55. J.R. Reisel (2007). The Development of Energy Policies by Undergraduate Engineering Students. *Proceedings of the 2007 American Society for Engineering Education Annual Conference & Exposition*, Paper No. AC2007-484, Session 1344, 13 pages, Honolulu, HI.
56. J.R. Reisel and K.J. Renken (2006). Development of Experimental Apparatuses to be Used in Two Sequential Thermal Science Courses. *Proceedings of the 2006 American Society for Engineering Education Annual Conference & Exposition*, Paper No. AC2006-328, Session 3133, 11 pages, Chicago, IL.
57. J.R. Reisel, A. Schmitt, and Z. Ouradnik (2003). Investigation of the source of increased hydrocarbon emissions over the life cycle of small utility engines. 2003 Small Engine Technology Conference. Paper No. *SAE 2003-32-0022*.
58. J.R. Reisel, K.J. Renken and B.A. Price (2003). Two senior capstone design projects on the potential energy savings at the Pettit National Ice Center. *Proceedings of the 2003 American Society for Engineering Education Annual Conference & Exposition*, Session 2433, 13 pages, Nashville, TN.
59. J.R. Reisel and K.J. Renken (2000). Establishment of an air compressor experimentation facility via undergraduate student projects, *2000 Annual Conference Proceedings: The 2000 American Society for Engineering Education Annual Conference*. Session 2333, 18 pages.
60. D.F. Bresenham and J.R. Reisel (1999) The effect of high ethanol blends on emissions from small utility engines, 1999 Small Engine Technology Conference Paper No. *SAE 1999-01-3345*.
61. D.F. Bresenham, J.R. Reisel, and K.F. Neusen (1998). The effects of oxygenate addition on emissions reduction in small utility engines. *Clean Power Sources and Fuels - 31st International Symposium on Automotive Technology and Automation*, pp. 345-363.
62. J.R. Reisel, C.D. Carter, and N.M. Laurendeau (1996). Evaluation of chemical kinetics predictions for NO and OH in atmospheric-pressure C₂H₆/O₂/N₂ flames. *Transport Phenomena in Combustion*. S.H. Chan, ed. Taylor & Francis, Washington, D.C., pp. 317-328.

NON-REFEREED CONFERENCE PRESENTATIONS:

Papers:

1. A. Kialashaki and J.R. Reisel (2013). Renewable Energy Development for Electricity Production: Federal and State Policies. Paper presented at the 2013 Western Energy Policy Research Conference, Portland, OR.

2. M. Jablonski and J.R. Reisel (2013). The importance of Native In-country Coordinators for Predictive Awareness of Cultural and Design Details for International Sustainable Engineering Projects. *Proceedings of the 2013 ASCE World Environmental & Water Resources Congress*. Paper No. 707, Cincinnati, OH.
3. A. Kialashaki and J.R. Reisel (2012). Modeling of the Energy Demand of the Residential Sector in the United States. Paper presented at the 2012 Western Energy Policy Research Conference, Boise, ID.
4. A. Kialashaki and J.R. Reisel (2012). Transport Energy Demand Modeling of The United States Using Artificial Neural Network. Paper presented at the Green Energy Sustainability Summit, Milwaukee, WI.
5. J.R. Reisel (2009). Incorporating consideration of contemporary issues and societal impacts into traditional engineering courses. Paper presented at the ASEE-North Midwest Section Conference 2009, Milwaukee, WI.
6. J.R. Reisel, J.W. Dujmovic, T.D. Schisel, and A.C. Schmitt (2003). Determination of the relative importance of oil-introduction mechanisms on the hydrocarbon emissions from small utility engines. Paper presented at the Central States Section / The Combustion Institute 2003 technical meeting, Chicago, IL.
7. J.R. Reisel, J.W. Dujmovic, and J.T. Krajewski (2002). Effects of engine modifications on the pollutant emissions from small utility engines. Paper presented at the Central States Section / The Combustion Institute 2002 technical meeting, Knoxville, TN.
8. K.B. Jordan and J.R. Reisel (2001). Evaluation of GRI-MECH v. 3.0 for predicting NO and OH concentrations in laminar, premixed, C₂H₆/O₂/N₂ flames. Paper presented at the 2nd Joint Meeting of the U.S. Sections of the Combustion Institute, Oakland, CA.
9. D. Caceres, J.R. Reisel, and A. Sklyarov (2001). Analysis of combustion chamber deposit formation in small, air-cooled, utility engines. Paper presented at the 2nd Joint Meeting of the U.S. Sections of the Combustion Institute, Oakland, CA.
10. D. Caceres, J.R. Reisel, and A. Poehlman (2000). The deterioration of the exhaust emissions over the life cycle of small utility engines. Paper presented at the Central States Section / The Combustion Institute 2000 technical meeting, Indianapolis, IN. pp. 193-198.

11. J.R. Reisel (2000). Effects of initial condition variations on the modeling of flat laminar flames. Paper presented at the Central States Section / The Combustion Institute 2000 technical meeting, Indianapolis, IN. pp. 415-420.
12. D.F. Bresenham and J.R. Reisel (1998). High ethanol fuel blends effect on emissions from small utility engines. Paper presented at the BioEnergy '98 conference, Madison, WI. pp. 819-828.
13. J.R. Reisel (1998). Modeling of nitric oxide formation in ethane flames. Paper presented at the Central States Section / The Combustion Institute 1998 technical meeting, Lexington, KY. pp. 309-314.
14. J.R. Reisel, T.A. Kellner, and K.F. Neusen (1997). Speciated hydrocarbon emissions in small utility engines. Paper presented at the Central States Section / The Combustion Institute 1997 technical meeting, Point Clear, AL. pp. 242-247.
15. J.R. Reisel (1996). Experimental correlations of NO formation in low-temperature hydrocarbon flames. Paper presented at the Central States Section / The Combustion Institute 1996 technical meeting, St. Louis, MO. pp. 74-79.
16. J.R. Reisel and N.M. Laurendeau (1994). Quantitative LIF measurements of nitric oxide in laminar, high-temperature $C_2H_6/O_2/N_2$ flames. Paper presented at the Central States Section / The Combustion Institute 1994 technical meeting, Madison, WI. pp. 219-224.
17. J.R. Reisel and N.M. Laurendeau (1993). Laser-induced fluorescence measurements and modeling of NO formation in premixed $C_2H_6/O_2/N_2$ flames at high pressure. Paper presented at the Joint Central-Eastern States Sections / The Combustion Institute Spring 1993 technical meeting, New Orleans, LA. pp. 122-126.
18. J.R. Reisel, C.D. Carter, and N.M. Laurendeau (1992). Laser-induced fluorescence measurements of nitric oxide in premixed $C_2H_6/O_2/N_2$ flames from 1 to 9 atm. Paper presented at the Central States Section / The Combustion Institute Spring 1992 technical meeting, Columbus, OH. pp. 306-311.
19. J.R. Reisel, C.D. Carter, and N.M. Laurendeau (1991). Laser-saturated fluorescence measurements of nitric oxide in atmospheric $C_2H_6/O_2/N_2$ flames. Paper presented at the Central States Section / The Combustion Institute Spring 1991 technical meeting, Nashville, TN. pp. 157-162.

Posters:

20. A. Kialashaki and J.R. Reisel (2014). Effects of Federal and State Policies on Production of Electricity from Renewable Sources. Poster presented at the 2014 Sustainability Summit and Exposition, Milwaukee, WI.

21. J.R. Reisel, T.K. Kim, B.J. Alder, and N.M. Laurendeau (1995). Measurements of nitric oxide concentrations in partially-premixed flames. Poster presented at the Joint Central States-Western States-Mexican National Sections / The Combustion Institute 1995 technical meeting, San Antonio, TX.
22. J.R. Reisel and N.M. Laurendeau (1994). LIF measurements of nitric oxide in laminar, high-temperature $C_2H_6/O_2/N_2$ flames. Poster presented at the 25th International Symposium on Combustion, Irvine, CA.
23. J.R. Reisel and N.M. Laurendeau (1993). Laser-induced fluorescence measurements of nitric oxide in laminar high-pressure flames. Poster presented at the 1993 Gordon Conference on Laser Diagnostics in Combustion, Plymouth, NH.
24. J.R. Reisel, C.D. Carter, and N.M. Laurendeau (1991). Laser-induced fluorescence measurements of nitric oxide in premixed $C_2H_6/O_2/N_2$ flames from 1 to 9 atm. Poster presented at the 1991 Gordon Conference on Laser Diagnostics in Combustion, Plymouth, NH.

TECHNICAL REPORTS

1. S.Q Zaman and J.R. Reisel (2004). Application of Catalytic Converters in Small Four Stroke Gasoline Engines. UW-Milwaukee Center for Alternative Fuels - Wisconsin Small Engine Consortium.
2. D. Caceres and J.R. Reisel (1999). Life cycle emissions deterioration emissions tests results: Final Report - Part 1. UW-Milwaukee Center for Alternative Fuels – Wisconsin Small Engine Consortium.
3. J.R. Reisel, T.A. Kellner, D.M. Rose, and K.F. Neusen (1997). Speciated hydrocarbon emissions from small utility engines. UW-Milwaukee Center for Alternative Fuels - Wisconsin Small Engine Consortium.
4. J.R. Reisel and N.M. Laurendeau (1994). Laser-induced fluorescence measurements and modeling of nitric oxide in high-pressure premixed flames. NASA Contractor Report 195404.

UNDERGRADUATE RESEARCH PROJECTS DIRECTED:

Providing research opportunities for undergraduate students introduces the students to ideas and practices which are often not available in the typical undergraduate curriculum. Being involved with a research project often spurs the students towards greater heights. At UW-Milwaukee, Dr. Reisel has supervised many

undergraduate research projects. A select listing of some of those projects is given below.

1. *Development of the Combustion Diagnostics Laboratory*
Mr. Paul Honkanen (1996)
2. *Development of an Air Compressor Energy Efficiency Laboratory* (with K. Renken)
Mr. Michael Jarmuskiewicz (1997)
3. *Air Compressor Lubricant Viscosity Measurements* (with K. Renken)
Mr. Mac Milleur (1997-1999)
4. *Air Compressor Energy Efficiency Measurements* (with K. Renken)
Mr. Kevin Mueller (1998)
5. *Thermal Imaging of Operating Air Compressors: Effects of Lubricant Variation*
(with K. Renken)
Mr. Justin Seipel (1998-1999)
6. *Life Cycle Emissions Testing of Small Utility Engines*
Mr. Diego Caceres (1998-1999)
7. *Evaluation of Oil Introduction Mechanisms on Increasing Hydrocarbon Emissions from Small Utility Engines*
Mr. Timothy Carlson (2000-2001)
Mr. Timothy Bunkelman (2000-2002)
8. *Hydrocarbon Emissions Deterioration in Small Utility Engines*
Mr. Jason Krajewski (2001-2002)
9. *Pollutant Emissions Changes with Modifications to Small Utility Engines*
Mr. Jeffrey Dujmovic (2001-2002).
10. *Oil Introduction Source Evaluations in Small Utility Engines*
Mr. Travis Schisel (2002)
Mr. Austin Schmitt (2002-2003)
Mr. Zack Ouradnik (2003-2004)
11. *A Review of the Application of Catalytic Converters to Small Utility Engines*
Mr. Samih Zaman (2004)
12. *Analysis of Catalytic Converter Deterioration in Small Utility Engines*
Mr. Daniel Janssen (2006-2007)
Mr. Kevin Rammer (2006-2007)
13. *Lab Measurements of the Effect of Intake Air Humidity Level on Air Compressor Performance* (with K. Renken)
Mr. Zach Jensen (2008-2009)

14. *Investigation of the Impact of Relative Humidity on the Performance of Industrial Air Compressors* (with K. Renken)
Mr. Jordan Fischer (2009-2010)
15. *Further Investigation of the Impact of Relative Humidity on the Performance of Industrial Air Compressors* (with K. Renken)
Mr. Milam Smith (2010-12)
16. *Dye Wastewater Treatment*
Ms. Heidi Ranicke (2014-15)

UNDERGRADUATE EDUCATION DEVELOPMENT PROJECTS DIRECTED

Dr. Reisel has been involved with the development of new instructional laboratories in the Mechanical Engineering Department at UWM. These laboratories are being developed along with Dr. Kevin J. Renken. These labs are being developed with the assistance of undergraduate students, whom the faculty are supervising. Some of the projects for which Dr. Reisel has been primarily responsible, along with the students supervised are listed below.

ME 301: Experiment 1-Liquid Vapor Transition: Boiling of Water
Ms. Colleen Bell, Ms. Christina Wisler (2001-02).

ME 301: Experiment: First Law Analysis Involving a Heat Exchanger
Mr. Austin Schmitt, Mr. Todd Murray (2002-03).

ME 301: Experiment: Coefficient of Performance of a Refrigerator
Mr. Zack Ouradnik (2003-04).

ME 301: Experiment: Entropy Generation in a Lighting Fixture
Mr. Erik Bauer, Mr. Chad Housner (2005).

RESEARCH GRANTS / FUNDING

1. J.R. Reisel and C.M. Walker, Research Initiation Grant: Defining Success for Undergraduate Research Experiences by Non-Elite Engineering Students. National Science Foundation, **\$149,995**, (2013-2016).
2. J.R. Reisel, Support for Undergraduate Researcher in Thermal Engineering Technology Lab – 2012-13 Academic Year. University of Wisconsin-Milwaukee, College of Engineering and Applied Science (Undergraduate Research Assistantship Program. **\$2,000**, (2012-13).

3. C. Yuan, E. Wornyo, B. Church, J.R. Reisel, and P. Rohatgi, Establishing an Industrial Assessment Center at the University of Wisconsin-Milwaukee. U.S. Department of Energy, **\$1,500,152** (+ **\$1,115,000** cost share), (2011-2016).
4. J.R. Reisel, *Support for Undergraduate Researcher in Thermal Engineering Technology Lab – 2011-12 Academic Year*. University of Wisconsin-Milwaukee, College of Engineering and Applied Science (Undergraduate Research Assistantship Program). **\$2,000** (2011-12).
5. J.R. Reisel, *Support for Undergraduate Researcher in Thermal Engineering Technology Lab – Summer 2011*. University of Wisconsin-Milwaukee, College of Engineering and Applied Science (Undergraduate Research Assistantship Program). **\$2,100** (2011).
6. J.R. Reisel, *Support for Undergraduate Researcher in Thermal Engineering Technology Lab*. University of Wisconsin-Milwaukee, College of Engineering and Applied Science (Undergraduate Research Assistantship Program). **\$3,000** (2010-11).
7. J. Koch, S. Goldsborough, and J.R. Reisel. *Design of Cost-Competitive, Fuel-Flexible, Low-NOx Burners with a Range of Firing Rates*. Southeastern Wisconsin Energy Technology Research Consortium (SWETRC), **\$85,000** (2009-2010)
8. J.R. Reisel, *Investigation of the Impact of Relative Humidity on the Performance of Industrial Air Compressors*. University of Wisconsin-Milwaukee, College of Engineering and Applied Science (Undergraduate Research Assistantship Program). **\$3,000** (2009-2010).
9. J.R. Reisel, *Lab Measurements of the Effect of Intake Air Humidity Level on Air Compressor Performance*. UWM Office of Undergraduate Research. **\$2,000** (2008-2009).
10. J.R. Reisel, *Analysis of Factors Affecting the Deterioration of Catalysts in Small Utility Engines*. Wisconsin Small Engine Consortium. **\$60,000** (2006-2007).
11. J.R. Reisel, *Reduction of the Deterioration of Small Engine Exhaust Emissions Over the Life Cycle of Small Utility Engines*. Wisconsin Small Engine Consortium. **\$60,000** (2004-2006).
12. J.R. Reisel, *Reduction of the Deterioration of Small Engine Exhaust Emissions over the Life Cycle of the Engines*. Wisconsin Small Engine Consortium. **\$37,500** (2002-2003).

13. J.R. Reisel and K.J. Renken, *A Feasibility Study of Potential Energy Savings at the Pettit National Ice Center*. Department of Administration, State of Wisconsin. **\$50,000** (2001-2002).
14. J.R. Reisel, *Reduction of Oil Introduction into Small Engine Cylinders to Improve Engine Emissions over the Life Cycle of the Engines*. Wisconsin Small Engine Consortium. **\$55,668**. (2000-2001).
15. J.R. Reisel, *Effects on Exhaust Emissions of Oil Introduction into the Engine Cylinder over the Life Cycle of Small Utility Engines*. Wisconsin Small Engine Consortium. **\$56,038**. (1998-2000).
16. J.R. Reisel, *A Study of Pollutant Formation in Ethanol and Propane Flames*, University of Wisconsin Graduate School. **\$6,070** (course release time). (1997-1998).
17. J.R. Reisel and K.J. Renken, *Utilization of Synthetic Lubricant Technology to Enhance the Performance of Wisconsin Air Compressors*. University of Wisconsin System (\$42,718) and Wenninger Compressor Co. (\$53,000). **\$95,718**. (1997-1998).
18. J.R. Reisel, *Measurement and Modeling of Major Species Concentrations in Atmospheric-Pressure Flames*. University of Wisconsin-Milwaukee Graduate School. **\$9,844**. (1995-1996).

EDUCATION GRANTS / EQUIPMENT / FUNDING

Note: The education grants designated with an asterisk also contain a significant amount of engineering education research activities.

19. W. Otieno, J.R. Reisel, E. Munson, G. Hanson, H. Hosseini, and C. M. Walker. *S-STEM: Preparing Engineers and Computer Scientists (PECS)*. National Science Foundation. **\$994,414** (2016-2021).
20. D.C. Yu, R.S. Amano, T.-C. Jen, V. Nanduri, and J.R. Reisel. *Master Curriculum Development for Energy Auditors, Commissioning Agents, and Energy Engineers*. U.S. Department of Energy through Milwaukee Area Technical College. **\$201,102** (2010-2012).
21. J.R. Reisel, E.V. Munson, E.A. Beimborn, G.W. Hanson, H.S. Hosseini. *Fostering Opportunities for Tomorrow's Engineers (FORTE)*. National Science Foundation **\$1,989,483** (2008-2015).*

22. H.S. Hosseini, J.R. Reisel, G.W. Hanson, E.V. Munson. *Educating Tomorrow's Engineers and Computer Scientists (E-TECS)*. National Science Foundation, **\$599,764**, (2008-2014).
23. K.J. Renken and J.R. Reisel. *Design and Implementation of a Multimode Heat Transfer Experiment for Use in Two Sequential Thermal Science Courses*. ASHRAE, **\$5,000**, (2004-05).
24. K.J. Renken and J.R. Reisel. *Vertical Integration of a Refrigerator Experiment Between Two Thermal Science Courses*. ASHRAE, **\$5,000**, (2003-2004).
25. K.J. Renken, J.R. Reisel, T.J. Posnanski, and B.A. Price. *Establishment of a Collaborative Thermal Engineering Technology Laboratory by UWM Mechanical Engineering Faculty and Undergraduate Students*. National Science Foundation **\$150,000 (+ \$224,159 UWM Match)**. (2002-2004). *
26. J.R. Reisel and K.J. Renken. *Design and Fabrication of an Interactive Heat Exchanger Experiment for Two Thermal Science Courses*. ASHRAE, **\$5,000** (2002-2003).
27. J.R. Reisel, Ariens Company, Brillion, WI: Donation of 3 engines, Aug. 2001. Amount: **\$3,446** (2001).
28. J.R. Reisel and K.J. Renken. *Development of an Air Compressor Experimentation Facility for Engineering Undergraduates*. ASHRAE. **\$5,000**, (2000-2001).

UNIVERSITY OF WISCONSIN-MILWAUKEE (UWM) SERVICE:

Coordinator of UWM Faculty Mentoring Program (2017 -)

Senate Subcommittee on the Evaluation of Administrators (2019 -)

Workgroup on Inappropriate Behaviors in UWM Facilities (2019)

University Committee (2013-2017, 2018-),
Chair (2015-2017)

UWM Lubar Business School Dean Search and Screen Committee (2017-19)
Chair

Chancellor's Strategic Opportunities Work Group (2016-2017)

Honors College Advisory Committee (2016-)

60,000 Hours of Service Committee (2016-2017)

UWM Zilber School of Public Health Dean Search and Screen Committee (2016-2017)

Chancellor's Campus Organization and Effectiveness Team (2015-2016)
co-Chair

Campus Budget Planning Task Force (2015-2016)

Policy Advisory Committee (2015-)

Space Planning Committee (2015-2017)

UW System Faculty Representative from UWM (2015-2017)

Social Entrepreneurship, Justice and Equity Compact Team (2015-2017)

Parliamentarian, UWM Zilber School of Public Health (2014-2015)

Faculty Senate Rules Committee (2012-14, 2018-19)
Chair (2013-14, 2018-19)

Affirmative Action in Faculty Employment Committee (2013-2015)

Center for Community-Based Learning, Leadership, and Research Faculty Advisory Council (2013- 2018)

APCC subcommittee for review of Actuarial Science (2011)
Chair

Columbia-St. Mary's Planning Committee (Special committee of the Senate) (2010)

Economic Benefits Committee (2009, 2017-)
Co-Chair (2019-20)

Faculty Rights and Responsibilities Committee (2008-2011)

Codification Committee (2007-2008, 2011-2013)

Faculty Senate (2006-2008, 2011-2017, 2018-)
President Pro Tem (2013-2014, 2018-19)

Extension Policy Committee (2004-2007)
Chair (2005-2006)

Faculty Appeals and Grievances Committee (2002-2003)

Chair

Undergraduate Student Academic Misconduct Committee (2000-2008)

Graduate School Scholastic Appeals Committee (2000-2003)

Member, APCC Review Committee for the School of Business Administration (2003)

Athletic Board (2000-2001, 2017-2018)

Academic Program and Curriculum Committee (APCC) (1996, 1997-1998, 2010-2012)

Member of Special Program Array Review Committee (1998)

APCC subcommittee for review of Linguistics Program (1998)

Chair

Admissions and Records Policy Committee (1996-1999, 2009-2010)

UWM COLLEGE OF ENGINEERING AND APPLIED SCIENCE SERVICE:

Secretary of the CEAS Faculty (2002-)

CEAS Academic Planning Committee (2010 - 2013)

Chair (2010-2011)

Faculty Advisor to Engineers Without Borders Student Organization (2007-)

CEAS Curriculum Committee (1999-2000, 2004-2008, 2009-2010)

Chair (2007-2008)

CEAS Scholastic Appeals Committee (2007-2011)

CEAS Nominations Committee (2001-2003, 2011-2013)

CEAS Awards and Recognition Committee (2010-2012)

Faculty Advisor to SAE Student Organization (1997-)

UWM MECHANICAL ENGINEERING DEPARTMENT SERVICE:

ABET Accreditation Coordinator (2005-2009)

Undergraduate Program Coordinator (2004-2008)

Undergraduate Student Advisor (2003-2012)

Executive Committee Recording Secretary (2001-2005)

Department Recording Secretary (1995-1998)

Coordinator of UWM/Sundstrand/SAE Scholarship (1995-2011)

PROFESSIONAL SERVICE:

ABET Mechanical Engineering Program Evaluator (from ASME) (2012-)

Internal Advisory Board, Carroll University NSF-STEP grant (2012-2017)

Professional Society Leadership Positions:

Program Chair, ASEE – TELPhE Division (2019-)

Secretary/Treasurer, ASEE – Engineering and Public Policy Division (2019 -)

Secretary, ASEE – TELPhE Division (2017- 2019)

Past Division Chair, ASEE – Engineering and Public Policy Division (2015 – 2019)

Division Chair, ASEE – Engineering and Public Policy Division (2011- 2015)

Vice Chair for Conference Program, ASEE- Engineering and Public Policy Division
(2007-2011)

Vice Chair for Administration, ASEE-Engineering and Public Policy Division (2006-2007)

Conference Sessions Chaired:

“Automation, Instrumentation, and Computer Simulations”, Energy Conversion and
Conservation Division / ASEE, 2016 ASEE Annual Conference, New Orleans, LA,
June 2016

“Thermodynamics, Fluids, and Heat Transfer II”, Mechanical Engineering Division /
ASEE, 2016 ASEE Annual Conference, New Orleans, LA, June 2016

“Engineering and Public Policy II”, Engineering and Public Policy Division / ASEE, 2013
ASEE Annual Conference, Atlanta, GA, June 2013

“Public Policy in Engineering Education”, Engineering and Public Policy Division / ASEE, 2011 ASEE Annual Conference, Vancouver, BC, June 2011

“Engineering Educators in Government: Panel Session”, Engineering and Public Policy Division / ASEE, 2011 ASEE Annual Conference, Vancouver, BC, June 2011

“Aspects of Public Policy in Engineering Education”, Engineering and Public Policy Division / ASEE, 2010 ASEE Annual Conference, Louisville, KY, June 2010.

“Teaching Engineering and Public Policy”, Engineering and Public Policy Division / ASEE, 2008 ASEE Annual Conference, Pittsburgh, PA, June 2008.

“Combustion Chemistry”, Central States Section / The Combustion Institute 2000 technical meeting, Indianapolis, IN, April 2000.

“NO_x Formation and Reduction”, Central States Section / The Combustion Institute 1998 technical meeting, Lexington, KY, June 1998.

Reviewer of Manuscripts:

Applied Energy

ASME Journal of Energy Resources Technology

ASME Journal of Engineering for Gas Turbines and Power

Energies

Energy Efficiency

International Journal for Service Learning in Engineering

International Journal of Education in Mathematics, Science and Technology

International Journal of Global Energy Issues

International Journal of Green Energy

International Journal of Mathematical Education in Science and Technology

International Journal of STEM Education

Journal of the Air and Waste Management Association

Journal of Energy Engineering

ASEE Annual Conference papers (2007-2019)

SAE Transactions Selection Committee.

30th International Symposium on Combustion (2004).

29th International Symposium on Combustion (2002).

28th International Symposium on Combustion (2000)

27th International Symposium on Combustion (1998)

National Heat Transfer Conference (1995-2000)

ASME/IGTI Turbo Expo (1998-2008).

ASME 1996 Winter Annual Meeting

ASME 1995 Winter Annual Meeting

International Symposium on Transport Phenomena - 8 conference (1995)

Have also served on NSF and NASA review panels, and National Defense Science and Engineering Graduate Fellowship Program reviews

Book Reviews Prepared:

Experimental Heat Transfer, Fluid Mechanics and Thermodynamics 1993, eds. M.D. Kelleher, R.K. Shah, K.R. Sreenivasan, and Y. Joshi. Appeared in *Experimental Thermal and Fluid Science*, **11**, 414 (1995)

Other:

Judge for UWM Rube Goldberg Machine Design Contest for High School students (1998 - 2005), (**Lead Judge** 2000-2004)

Participated in Purdue University Student Chapter of ASEE panel discussion on Being a Young Engineering Faculty Member. 9/20/95

Various Invited Talks to Community, and other Colleges/Universities

COMMUNITY SERVICE**Current:**

Member of the Board of Directors, Big Brothers/Big Sisters of Milwaukee, Milwaukee, WI

Member of the Board of Directors of the St. Hyacinth Emergency Food Pantry, Milwaukee, WI

Stroke & Turn Official – USA Swimming

Past:

Treasurer, St. Hyacinth Emergency Food Pantry, Milwaukee, WI

Food Director, St. Hyacinth Emergency Food Pantry, Milwaukee, WI

Chair, Prayer and Worship Committee, St. Robert Parish, Shorewood, WI

Secretary, UWM Golf League

Volunteer, Habitat for Humanity, Milwaukee, WI

Volunteer (many roles), Milwaukee-area golf tournaments: Greater Milwaukee Open/US Bank Championship, 2004 and 2015 PGA Championship, 2007 US Senior Open, 2008 US Mid-Amateur Championship, 2011 US Amateur Championship, 2017 US Open.