

# Gerardo Cristian Diaz

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## EDUCATION

- **Ph.D. Mechanical Engineering** (2000) - University of Notre Dame.  
Dissertation: Simulation and control of heat exchangers using artificial neural networks  
Advisors: M. Sen, K.T. Yang
- **M.S. Mechanical Engineering** (1999) - University of Notre Dame
- **Mechanical Engineer** (1994) - Universidad de Santiago de Chile.

## WORK EXPERIENCE

- **Assistant Professor.** University of California, Merced. (2005-present)
- **Controls Engineer.** Airframe Systems, Honeywell, CA. (2004-2005)
- **Technical Advisor.** Research and Development, Modine Manufacturing Company, WI. (2002-2004)
- **Sr. Research Engineer.** Research and Development, Modine Manufacturing Company, WI. (2001-2002)
- **Research Engineer.** Research and Development, Modine Manufacturing Company, WI. (2000-2001)
- **Instructor of AME327 Thermodynamics I.** Summer session 1999, University of Notre Dame.
- **Instructor of AME327 Thermodynamics I.** Summer session 1998, University of Notre Dame.
- **Research assistant,** University of Notre Dame, Notre Dame, IN. (8/95 - 5/00)
- **Teaching assistant,** University of Notre Dame, Notre Dame, IN. (8/95 - 5/00)

## CONSULTING

- Evaluated the design and operation of the air conditioning (AC) system of the San Ramón Hospital. Santiago, Chile (1/94 - 7/94). Sponsored by the World Bank.
- Evaluated the design and operation of the AC system of the Dr. Sótero del Río Hospital. Santiago, Chile (6/93 - 10/93). Sponsored by the World Bank.

## HONORS AND AWARDS

- Outstanding Graduate Student Teacher Award for Excellence in Teaching. (Notre Dame, 4/2000)
- Harman Fellowship in Engineering. (Notre Dame, 1998)
- Invited speaker “Neurocontrol of Heat Exchangers” at the Fourth International Meeting of Mechanical Engineering, San Luis Potosí (Mexico, 1998).
- Organization of American States Fellowship, Program: PRA-Mechanical Engineering, Number: F50222, (8/96 - 8/98)

## CONTINUING EDUCATION COURSES

- Latin American Workshop on Plasma Physics. Center for Nuclear Studies, Santiago, Chile (8/10)
- Compressed Gas Safety Training, UC Merced, Environmental Health and Safety (6/10)
- Lab Safety and Fume Hood use Training, UC Merced, Environmental Health and Safety (5/10)
- FLUENT V6.0 Introductory Training. Modine (01/02)
- Mastering Visual Basic 6 Fundamentals. New Horizons Computer Learning Center, Madison, WI (6/00)
- Simulation tools for vapor compression systems and component analysis. Purdue University, (7/00)
- Simulation of cooling systems with KULI 4.01, Modine (9/00)

## REVIEWER

### *Journals*

- AIAA Journal of Aircraft
- ASHRAE International Journal of HVAC&R Research
- Chemical and Biochemical Engineering Quarterly
- Chemical Engineering and Processing: Process Intensification
- Chemical Product and Process Modeling
- Communications in Nonlinear Science and Numerical Simulations
- Control and Intelligent Systems journal
- Heat Transfer Engineering
- International Journal of Chemical Reactor Engineering
- International Journal of Heat and Mass Transfer
- International Journal of Hydrogen Energy
- International Journal of Numerical Methods for Heat and Fluid Flow
- International Review of Chemical Engineering
- Numerical Methods for Partial Differential Equations
- Optics Express (Energy Express supplement)
- Recent Patents in Mechanical Engineering

### *Conferences*

- Fourth IFAC Workshop on Fractional Derivatives and Applications (IFAC FDA2010)

### *Book Publishers*

- Oxford University Press

### *Funding Institutions*

- Roadmap for the California Energy Commission's Public Interest Energy Research Advanced Generation (PIER AGen) Program

## FUNDING

1. *Syngas generation from organic waste with plasma steam reforming* PI: G. Diaz, Sponsor: Research, Travel and/or Shared Equipment Grant, Graduate Research Council, U.C. Merced. \$2,500.00 (4/8/2010–6/30/2011)
2. *Numerical analysis of a minichannel solar collector for CO<sub>2</sub>-based Rankine cycle applications* PI: G. Diaz, Sponsor: Research, Travel and/or Shared Equipment Grant, Graduate Research Council, U.C. Merced. \$2,500.00. (4/29/09–6/30/2010)
3. *Piloting a Integrated a Renewable Energy Portfolio for the UC Merced Community*, PI: C.F.M. Coimbra, Co-PI: G. Diaz. Sponsor: Renewable-based energy secure communities program from the California Energy Commission \$1,000,000 (Contribution 33%). (9/1/2009–8/30/2012) . Contract # PIR-08-036.
4. *Combustion Analysis in Alternative Fuel Homogeneous Charge Compression Ignition Engines*, P.I.: G. Diaz. Sponsor: Lawrence Livermore National Security, LLC. \$205,338.00 (12/01/2007–11/30/2009) Contract #:B570250.
5. *Integrated hybrid refrigeration system using liquid desiccants*, PI: G. Diaz, Co-PI: R. Winston. Sponsor: PIER Food Industry Energy Research Program from the California Energy Commission \$242,999.00 (5/1/2007–6/30/2009) Contract #: 500-02-004, WA# MR-062.
6. *Combustion Analysis in Alternative Fuel Homogeneous Charge Compression Ignition Engines*, P.I.: G. Diaz. Sponsor: LLNL Intra-University Transaction. \$64,515.00 (11/21/2006–09/30/2007) Contract # W-7405-ENG-48.

## SERVICE (UC Merced and School of Engineering)

1. Development of Mechanical Engineering program: Design of undergraduate curriculum, Catalog text, Meetings with external advisors, Generation of CRFs, Mech Eng flyers, 2005.
2. Member of General Education committee (Chair: Martha Conklin), 2005
3. Laboratory Space Committee. (Chair: Valerie Leppert), 2005
4. Member of the Undergraduate Council (Chair: Mike Colvin), F2005-S2006
5. Member subcommittee on Courses from UGC (Chair: Evan Heit), F2005-S2006
6. Chair of the search committee for ME3 Assistant Level Position, F2005-S2006
7. Member of search committee for Solar Energy Position (Chair: David Kelley), F2005-S2006
8. Chair of the search committee for ME2 Senior Level Position, F2006-S2007
9. Member of the Undergraduate Council (Chair: Evan Heit), F2006-S2007
10. Member subcommittee on Courses from UGC (Chair: Manuel Martin-Rodriguez), F2006-S2007
11. Member of search committee for Materials faculty position (Chair: Valerie Leppert), F2006-S2007
12. Member of search committee for ME4 senior level faculty position (Chair: Carlos Coimbra), F2006-S2007
13. Member of committee to start Mechanical Engineering Applied Mechanics graduate group (Chair: Carlos Coimbra), F2006-S2007
14. Member Resources committee (Chair: V. Leppert), F2006-S2007. Generated Strategic plan of ME program
15. Member Committee for the development of the Mechanical Engineering and Applied Mechanics graduate program, 2007-present

16. Member Environmental Systems graduate program, 2006-present
17. Member Mechanical Engineering and Applied Mechanics graduate program, 2007-present
18. Member Resources committee (Chair: W-C Chin), F2007-S2008
19. Member Chancellor Advisory Committee on Environmental Sustainability, 2007-2010
20. Member of Mechatronics Working Group, Fall 2007-Spring 2008
21. Member of Campus planning committee, 2007-2009
22. Chairman of curriculum committee for MEAM graduate group, Feb. 2008-present
23. Member of Steering Committee for the Merced Energy Research Institute, Fall 2007-Spring 2008
24. Member Search Committee for Complex Systems position (ME7) Spring 2008
25. Member of Search Committee for Multiscale modeling position, Spring 2008
26. Chair Thesis committee for M.S. degree ES for Luke Reed, Summer 2008
27. Member Resources committee , F2008-S2009
28. Co-chair MS thesis defense committee ES for Alfonso Tovar, Fall 2008
29. Member qualifying exam committee MEAM for Bo Song, Spring 2009
30. Member of Academic Personnel Committee, Fall 2009-Spring 2011
31. Member MS thesis defense committee ES for Jesus Cisneros, Fall 2009
32. Member qualifying exam committee MEAM for Sergio Pineda, Fall 2009
33. Member qualifying exam committee MEAM for Siyu Wu, Fall 2009
34. Chair qualifying exam committee ES for Chungua Wang, Fall 2009
35. Judge for School of Engineering Professional Seminar evaluation projects, Fall 2009
36. Member of Search Committee for MEAM Computational Mechanics, Fall 2009-Spring 2010
37. Member qualifying exam committee MEAM for Neeraj Sharma, Spring 2010
38. Member Committee on Committees for the Merced Division, August 2010-July 2012

## **TEACHING**

1. ENGR 097 Service Learning
2. ENGR 130 Thermodynamics
3. ENGR 135/ES 235 Heat Transfer
4. ME 170 Capstone Design (coordinator)
5. MEAM 202: Transport Phenomena
6. MEAM 210: Linear Control Systems

## **PATENTS**

1. Manufacturing methods for absorber and inlet-outlet manifolds for evacuated tube solar collectors based on mini-channels, Inventors: N. Sharma and G. Diaz, Provisional Patent Application (Pending)
2. Mini-channel tube solar collector, Inventor: G. Diaz, Provisional Patent Application # 61/082,698, UC Case: 2008-838-1 (Pending)

3. Improved trigeneration system and method, Inventor: G. Diaz, UC Case: 2008-005-1 (Pending)

## JOURNAL PUBLICATIONS

1. N. Sharma and G. Diaz, Performance model of a novel evacuated tube solar collector based on minichannels, *submitted for review*
2. S.M. Pineda, G. Diaz, and C.F.M Coimbra, Approximation of transient 1-D conduction in a finite domain using fractional derivatives, *accepted in ASME Journal of Heat Transfer*.
3. S.M. Pineda and G. Diaz, Performance of an adiabatic cross-flow liquid desiccant absorber inside a refrigerated warehouse, *International Journal of Refrigeration*, Vol. 34, 138-147, 2011.
4. G. Diaz, Numerical investigation of transient heat and mass transfer in a parallel-flow liquid-desiccant absorber, *Heat and Mass Transfer*, Vol. 46, 1335-1344, 2010.
5. A. Contreras, G. Diaz, L. Gallardo and R. Loaiza, Energy ratio analysis of genetically-optimized potato for ethanol production in the Chilean market, *Spanish Journal of Agricultural Research*, Vol. 8, No. 3, 559-569, 2010.
6. G. Diaz and A. Campo, Artificial neural networks to correlate in-tube turbulent forced convection of binary gas mixtures, *International Journal of Thermal Sciences*, Vol. 48, pp. 1392-1397, 2009.
7. G. Diaz and C.F.M. Coimbra, Nonlinear Dynamics and Control of a Variable Order Oscillator with application to the van der Pol equation, *Nonlinear Dynamics*, Vol. 56, No. 1, pp. 145-157, 2009.
8. G. Diaz and R. Winston, Effect of surface radiation on natural convection in parabolic enclosures, *Numerical Heat Transfer, Part A*, Vol. 53, No. 9, pp. 891-906, 2008
9. G. Diaz, Controllability of cross-flow two-phase heat exchangers, *International Journal of Heat and Mass Transfer*, Vol. 50, pp. 4559-4567, 2007
10. G. Diaz, M. Sen, and K.T. Yang, Effect of Delay in Thermal Systems with Long Ducts, *International Journal of Thermal Sciences*, Vol. 43, No. 3, pp. 249-254, 2004
11. G. Diaz, M. Sen, K.T. Yang and R.L. McClain, Stabilization of Thermal Neurocontrollers, *Applied Artificial Intelligence*, Vol. 18, No. 5, pp. 447-466, 2004
12. G. Diaz, M. Sen, K.T. Yang and R.L. McClain, Adaptive Neurocontrol of Heat Exchangers, *ASME Journal of Heat Transfer*, Vol. 123, No. 3, pp. 417-612, 2001
13. A. Pacheco-Vega, G. Diaz, M. Sen, K.T. Yang and R.L. McClain, Heat Rate Predictions in Humid Air-Water Heat Exchangers Using Correlations and Neural Networks, *ASME Journal of Heat Transfer*, Vol. 123, No. 2, pp. 348-354, 2001.
14. G. Diaz, M. Sen, K.T. Yang and R.L. McClain, Dynamic Prediction and Control of Heat Exchangers Using Artificial Neural Networks, *International Journal of Heat and Mass Transfer*, Vol. 44, No. 9, pp. 1671-1679, 2001.
15. G. Diaz, J. Schmadl, T. Schutz and M. Sen, Modeling of Heat Transfer in Free Convection Nucleate Boiling with Artificial Neural Networks, Part II: Single Component (in German), *Wissenschaftliche Beitrage*, Technische Fachhochschule Wildau, Heft 2, 2000, pp. 36-42.
16. G. Diaz, J. Schmadl, T. Schutz and M. Sen, Modeling of Heat Transfer in Free Convection Nucleate Boiling with Artificial Neural Networks, Part I: Literature Survey (in German), *Wissenschaftliche Beitrage*, Technische Fachhochschule Wildau, Heft 2, 2000, pp. 30-35.
17. G. Diaz, M. Sen, K.T. Yang and R.L. McClain, Simulation of Heat Exchanger Performance by Artificial Neural Networks, *International Journal of HVAC&R Research*, Vol. 5, No. 3, pp. 195-208, 1999

## BOOK CHAPTERS

1. G. Diaz and C.F.M. Coimbra, Dynamics and control of nonlinear variable order oscillators. Nonlinear Dynamics, Book edited by: Todd Evans, ISBN 978-953-7619-61-9, pp. 129-144, January 2010, INTECH, Croatia.
2. G. Diaz, Numerical analysis of a minichannel solar collector for CO<sub>2</sub>-based Rankine cycle applications, WIT Transactions on Ecology and the Environment, Vol 121, pp. 23-34, 2009. ISBN: 978-1-84564-191-7, ISSN: 1746-448X (print), ISSN: 1743-3541 (on-line) (See also Conference proceedings: Energy and Sustainability 2009)

## CONFERENCE PROCEEDINGS

1. V.M. Emmerson, G. Diaz. Experimental characterization of a small-scale downdraft gasifier for biomass waste, Proceedings of ASME IMECE 2010, Paper # IMECE2010-37392, November, Vancouver, Canada.
2. G. Diaz, E. Leal-Quiroz, R.A. Smith, J. Elliott, D. Unruh, Syngas generation from organic waste with plasma steam reforming, *presented at* 15th International Congress on Plasma Physics (ICPP 2010), August 2010, Santiago, Chile. After review process, contributed papers are being published in Journal of Physics: Conference Series (IOP Publishing).
3. S.M. Pineda and G. Diaz, Analysis of heat and mass transfer of an adiabatic cross-flow liquid desiccant absorber operating at low temperature, Proceedings of ASME Summer Heat Transfer Conference, Paper # HT2009-88255, pp. 1-9, San Francisco, July 2009.
4. G. Diaz, Numerical analysis of a minichannel solar collector for CO<sub>2</sub>-based Rankine cycle applications, Proceedings of Second International Conference on Energy and Sustainability 2009, Bologna, Italy, pp. 23-34. (See also Book chapter: Ecology and the Environment, Vol 121, pp. 23-34, 2009.)
5. G. Diaz, Performance Analysis and Design Optimization of a Mini-channel Evacuated-tube Solar Collector, Proceedings of ASME IMECE 2008, Paper # IMECE2008-67858, Boston, MA, Nov. 2008.
6. G. Diaz, Performance Improvement of a CO<sub>2</sub> Combined Cooling, Heating, and Power Cycle Using Solar Thermal Collectors, Proceedings of SOLAR 2008, Paper # 0238, pp. 1-6, San Diego, CA, May 2008.
7. G. Diaz and A. Campo, Turbulent forced convection correlation for the in-tube flow of binary gas mixtures with  $0.1 < Pr < 0.7$ , Proceedings of the ASME-JSME Thermal Engineering Conference and Summer Heat Transfer Conference, Vancouver, BC, Canada (July 2007), Paper # HT2007-32355, pp. 1-6.
8. R.Winston, G.Diaz, A.Ritchel, A.Tovar, J.Cisneros, R.Gee, M.J.Hale, S.Horne, X.Jiang, R.Radhakrishnan and J.Zhang, High temperature CPC collectors with chinese vacuum tube receivers. Proceedings of ISES World Congress 2007 (Vol. I - Vol. V), pp. 661-662 Springer Berlin Heidelberg, 10.1007/978-3-540-75997-3, 978-3-540-75996-6 (Print) 978-3-540-75997-3 (Online).
9. G. Diaz, R. Winston, P. Benitez, A. Ritschel, S.M. Pineda, Analysis of natural convection coupled with thermal radiation in novel high concentration nonimaging-optics-based system for multi-junction solar cells, Proceedings of ASME IMECE, Paper # IMECE2006-14178, Chicago, IL, 2006.
10. G. Diaz, M. Sen, K.T. Yang and R.L. McClain, Stabilization of a neural network-based temperature controller for heat exchangers, Proceedings of the 12th International Heat Transfer Conference, Grenoble, France, Volume 4, pp. 225-230, 2002.
11. G. Diaz, M. Sen, K.T. Yang and R.L. McClain, On-line training of artificial neural networks for control of a heat exchanger test facility, Proceedings of the ASME NHTC'01, Anaheim, California, Volume 10, pp. 359-365, 2001.

12. G. Diaz, M. Sen and R.L. McClain, Adaptive Neurocontrol and Minimization of Energy Consumption of a Heat Exchanger Test Facility, Proceedings of the ASME IMECE, HTD-Vol.366-3, Heat Transfer Division-2000, pp. 111-116, November 5-10, 2000.
13. K. T. Yang, Mihir Sen, Gerardo Diaz, Arturo Pacheco-Vega, and Rodney L. Mc-Clain, Coefficient of Heat Transfer in Fin-Tube Heat Exchanger Analysis and the Artificial Neural Networks, Proceedings of the Symposium on Energy Engineering in the 21th Century (SEE 2000), ed. Ping Cheng, Vol. 3, pp. 940-948, Begell House Publishers, NY, USA.
14. G. Diaz, M. Sen, K.T. Yang and R.L. McClain, Use of artificial neural networks for temperature control in heat exchangers, Proceedings of the Fourth ISHMT-ASME Heat and Mass Transfer Conference and Fifteenth National Heat and Mass Transfer Conference, (Eds.) M.S. Loknath, S.P. Venkateshan, B.V.S.S.S. Prasad, B. Basu, V. Prasad, Jan. 12-14, 2000, Pune, India, pp. 963-968.
15. G. Diaz, M. Sen, K.T. Yang, R.L. McClain, Artificial Neural Network Control of an Experimental Heat Exchanger Facility, Proceedings of the ASME Heat Transfer Division-1999, 1999 ASME International Mechanical Engineering Congress and Exposition, HTD Vol. 364-4, 1999, pp. 325-330.
16. G. Diaz, M. Sen, K.T. Yang and R.L. McClain, Neurocontrol of Heat Exchangers (in Spanish), Proceedings of the Fourth International Meeting of Mechanical Engineering, San Luis Potosi, Mexico, pp. 123-128, 1998.
17. G. Diaz, M. Sen, K.T. Yang and R.L. McClain, Artificial Neural Network Simulation of the Dynamic Behavior of Heat Exchangers, Proceedings of the Seventh Latin American Heat and Mass Transfer Conference, Vol. 1, pp. 23-28, 1998.
18. G. Diaz, S. Basu, M. Sen, K.T. Yang and R.L. McClain, Effect of delay in heating and cooling systems, Proceedings of EURO THERM 53 - Advanced Concepts and Techniques in Thermal Modelling, Oct. 1997.
19. G. Diaz, J.A. Yanes, M. Sen, K.T. Yang and R.L. McClain, Analysis of Data from Single-Row Heat Exchanger Experiments Using an Artificial Neural Network, Proceedings of the ASME Fluids Engineering Division, International Mechanical Engineering Congress and Exhibition, Atlanta, GA, FED-Vol. 242, American Society of Mechanical Engineering, New York, NY, pp. 45-52, 1996.
20. Moraga, N., Díaz, G., and Aedo, A., Analysis of Heat Conduction for Food Freezing by Space-Time Finite Element Method, Proceedings of VI Latinamerican Congress of Heat and Mass transfer, Florianópolis SC, Brazil, Vol. II, pp. 813-816, 1996.
21. Moraga, N. and Díaz, G., Bidimensional thermal simulation of cylindrical aluminum castings by the finite difference method (in Spanish). Proceedings of the XII Jornadas de Transferencia de Calor y Materia, Santiago, Chile. pp. 105-111, 1994.
22. Moraga, N. and Díaz, G., Study on transient heat conduction by the space-time formulation of the finite element method (in Spanish). Proceedings of the XI Jornadas de Transferencia de Calor y Materia, Temuco, Chile. pp. 40-45, 1993.

## POSTER SESSIONS

1. G. Diaz, E. Leal-Quiros, Sustainable waste management using plasma gasification at the campus of the University of California - Merced, XXIX International Conference on Phenomena in Ionized Gases (ICPIG), Cancun, Mexico July 2009.
2. P. Benitez, R. Winston, G. Diaz, L. Reed, J. Cisneros, A. Tovar-Fonseca, A. Ristchel, J. Wright, Novel high-concentration mirror-based Kohler integrating system for tandem solar cells, 2006 IEEE 4th World Conference on Photovoltaic Energy Conversion.
3. G. Diaz, M. Sen, K.T. Yang and R.L. McClain, Simulation of Heat Exchanger Performance by Artificial Neural Networks, ASHRAE Winter Meeting, Dallas, TX, Feb. 2000.

4. G. Diaz, S. Basu, M. Sen, K.T. Yang and R.L. McClain, Effect of Delay in Heating and Cooling Systems, Proceedings of the Eurotherm No. 53, Advanced Concepts and Techniques in Thermal Modeling, pp. 41-42, 1997.

#### **PRESENTATIONS WITHOUT PROCEEDINGS**

1. "Energy of the future," Invited talk for Frontiers of Science and Engineering. Challenger Learning Center (Atwater), October 2008.
2. "Numerical simulations of evacuated-tube solar collectors," Solar Energy: Today and Tomorrow Symposium at UC Merced, September 2008.
3. "Energy efficiency at UC Merced," California Public Utilities Commission visit at UC Merced, June 2008.
4. "Energy of the future," Invited talk CORE 1, April 2008.
5. "Energy of the future," Invited talk for CORE 100, December 2007.
6. "Energy research at UC Merced," UC - Canada Workshop at UC Davis, March 2007.

#### **NON-TECHNICAL PRESENTATIONS**

1. "Engineering Associations," Vanguard recruiting event, UC Merced, February 2010.
2. "Job Options," Service learning skill session, November 2009.
3. "Waste-to-Energy Research at UC Merced," to 4-H high school students, August 2009.
4. "Mechanical Engineering at UC Merced," to CSU Fresno faculty, April 2009.
5. "Mechanical Engineering at UC Merced," Orientation day for School of Engineering, July 2008.
6. "SEA/SHPE at UC Merced," SEA/SHPE Workshop for high-school students, February 2008.
7. "Staying active in school," SHPE Academic Excellence Month at UC Merced, November 2007.
8. "Mechanical Engineering at UC Merced," Recruiting efforts SoE - UCM, August 2007.
9. "Undergraduate program in Mechanical Engineering at UC Merced," Universidad Austral, Valdivia, Chile. June 2007. National Laboratory (CFD group), April 2006.
10. "Mechanical Engineering at UC Merced," Lawrence Livermore
11. "Engineering at UC Merced," Merced College, October 2005.

#### **MS THESES SUPERVISED**

- Analytical and experimental study of a liquid desiccant heat and mass exchanger operating near water freezing temperature, Sergio M. Pineda, MEAM 2009.
- Performance assessment of three concentrating solar thermal units designed with XCPC reflectors and evacuated tubes, using an analytical thermal model, Alfonso Tovar, ES 2008.

#### **CURRENT GRADUATE STUDENTS**

- Sergio M. Pineda (Ph.D. program)
  - Graduate Research Council fellowship (UC Merced) \$ 6,000. 6/2010–8/2010.
- Neeraj Sharma (Ph.D. program)

- Edward Hildebrand Fellowship (UC Merced) \$ 7,347. Fall 2010 semester.

#### **CURRENT AND FORMER UNDERGRADUATE STUDENTS**

- Josue Lopez (UC LEADS Fellowship recipient)
- David Unruh
- Robert Smith
- Vaughn Emmerson
- Huimin Li

#### **MEMBERSHIPS**

- American Society of Mechanical Engineers (ASME) member
  - Member of Advanced Energy System Division technical committee.
- American Chemical Society (ACS) member

#### **ADVISOR**

- UC Merced Campus advisor for Science and Engineering Association, SEA (branch of SHPE)