

## Curriculum Vitae

**Junling (Joyce) Hu**, Ph.D., Associate Professor  
Department of Mechanical Engineering  
University of Bridgeport, Bridgeport, CT 06604  
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### RESEARCH INTERESTS

Transport phenomena in manufacturing and materials processing, Thermal Management of Electronic Devices and Systems, Renewable Energy Systems, Modeling Fluid Flow and Heat Transfer inside Wellbore during Drilling Operation, Micro-/Nano- Scale Energy Transport, Computational Fluid Dynamics, Finite Element Analysis, Gas Metal Arc Welding, Laser-Based Manufacturing and Materials Processing: Welding, Cutting, Drilling, Cladding, etc.

### EDUCATION

**Ph.D.** in Mechanical Engineering, University of Missouri-Rolla, Rolla, MO (2005)  
**M.E.** in Thermal Engineering, Huazhong University of Science & Technology, China (1999)  
**B.E.** in Thermal Engineering, Huazhong University of Science & Technology, China (1996)

### WORKING EXPERIENCE

**Associate Professor**, Department of Mechanical Engineering, University of Bridgeport, Bridgeport, CT (08/2011 – present)  
**Assistant Professor**, Department of Mechanical Engineering, University of Bridgeport, Bridgeport, CT (08/2005 – 08/2011)  
**Postdoctoral Fellow**, Department of Mechanical Engineering, University of Missouri-Rolla, Rolla, MO (03/2005 – 06/2005)  
**Graduate Research/Teaching Assistant**, Department of Mechanical Engineering, University of Missouri-Rolla, Rolla, MO (08/1999 – 12/2004)  
**Summer Intern**, General Motors R&D Center, Warren, MI (05/2001 – 08/2001)  
**Graduate Research Assistant**, National Key Lab of Coal Combustion, Huazhong University of Science & Technology, Wuhan, China (06/1996 – 06/1999)

### JOURNAL PUBLICATIONS

1. G. Xu, **J. Hu** and H. L. Tsai, “Modeling 3D Plasma Arc in Gas Tungsten Arc Welding”, *ASME Journal of Manufacturing Science and Engineering*, under revision.
2. Z.H. Rao, **J. Hu**, S.M. Liao and H. L. Tsai, “Modeling of the Transport Phenomena in GMAW Using Argon-Helium Mixtures, Part I – The Arc”, *International Journal of Heat and Mass Transfer*, 53 (2010) 5722-5732.
3. Z.H. Rao, **J. Hu**, S.M. Liao and H. L. Tsai, “Modeling of the Transport Phenomena in GMAW Using Argon-Helium Mixtures, Part II – The Metal”, *International Journal of Heat and Mass Transfer*, 53 (2010) 5707-5721.
4. H. Guo, **J. Hu** and H. L. Tsai, “Three-Dimensional Modeling of Gas Metal Arc Welding of Aluminum Alloys”, *ASME Journal of Manufacturing Science and Engineering*, 132 (2010) 021011.

5. H. Guo, **J. Hu** and H. L. Tsai, "Numerical Modeling of Cold Weld Formation and Improvement in GMAW of Aluminum Alloys", *Numerical Heat Transfer, Part A: Applications*, 57 (2010) 392-414.
6. H. Guo, **J. Hu** and H. L. Tsai, "Formation of weld crater in GMAW of aluminum alloys", *International Journal of Heat and Mass Transfer*, 52 (2009) 5533-5546.
7. G. Xu, **J. Hu** and H. L. Tsai, "Three-dimensional modeling of arc plasma and metal transfer in gas metal arc welding", *International Journal of Heat and Mass Transfer*, 52 (2009) 1709-1724.
8. G. Xu, **J. Hu** and H. L. Tsai, "Three-Dimensional Modeling of the Plasma Arc in Arc Welding", *Journal of Applied Physics*, 104, 103301 (2008).
9. **J. Hu** and H. L. Tsai, "Modeling of Transport Phenomena in 3D GMAW of Thick Metal with V-Groove", *Journal of Physics D: Applied Physics*, 41 (2008) 065202 (10pp).
10. **J. Hu**, H. Guo and H. L. Tsai, "Weld Pool Dynamics and the Formation of Ripples in 3D Gas Metal Arc Welding", *International Journal of Heat and Mass Transfer* 51 (2008), 2537-2552.
11. **J. Hu** and H. L. Tsai, "Metal Transfer and Arc Plasma in Gas Metal Arc Welding", *ASME Journal of Heat Transfer*, 129 (2007) 1025-1035.
12. **J. Hu** and H. L. Tsai, "Heat and Mass Transfer in Gas Metal Arc Welding, Part I: the Arc", *International Journal of Heat and Mass Transfer*, 50 (2007), 833-846.
13. **J. Hu** and H. L. Tsai, "Heat and Mass Transfer in Gas Metal Arc Welding, Part II: the Metal", *International Journal of Heat and Mass Transfer*, 50 (2007), 808-820.
14. **J. Hu** and H. L. Tsai, "Effects of Welding Current on Droplet Generation and Arc Plasma in Gas Metal Arc Welding", *Journal of Applied Physics*, 100, 053304 (2006).
15. J. Yin, C. Zheng, L. Zhou, **J. Hu**, "Numerical Simulation of NO<sub>x</sub> Formation with a Second-Order-Moment-PDF Turbulence-Chemistry Model", *Journal of Combustion Science and Technology*, Vol. 7, No. 1, 2001.
16. H. Zeng, J. Zhou, T. Xu, **J. Hu**, H. Yao, "Staged Combustion and Staged Desulphurization", *Clean Coal Combustion & Power Generation Technology*, No. 2, Sept., 1998.
17. Z. Zhang, **J. Hu**, H. Zeng, etc, "Studies on Experiments of Using Solid-Sorbent to Control Heavy Metal During Coal Combustion", *Journal of Fuel Chemistry and Technology*, Vol. 26, No. 6, Dec., 1998.

## CONFERENCE PUBLICATIONS

1. K. Ren, **J. Hu**, L. Zhang, and X. Xiong, "Numerical Study of a PEM Fuel Cell under Different Temperatures", *2011 ASEE Northeast Section Conference*, University of Hartford, Hartford, CT, April 29-30, 2011.
2. X. Xiong, H. Bajwa, L. Zhang, and **J. Hu**, "Developing VLSI Curricula in Electrical and Computer Engineering Department", *2010 ASEE Annual Conference & Exposition*, Louisville, KY, June 20-23, 2010.
3. L. Zhang, N. Gari, X. Xiong, **J. Hu** and L. Hmurcik, "Understanding Smart Power Grid Systems by a Course Project", *2010 ASEE Northeast Section Conference*, Wentworth Institute of Technology, Boston, MA, May 7-8, 2010.
4. J. Zhong, X. Xiong, Z. Yao, **J. Hu** and P. Patra, "Design and Optimization of Piezoelectric Dual-Mode Micro-Mirror", *IEEE International Conference on Industrial*

- Electronics, Technology & Automation (IETA09)*, December 4-12, Bridgeport, Connecticut, 2009.
5. Z.H. Rao, **J. Hu**, S.M. Liao and H. L. Tsai, "Study the shielding gas effect on the metal transfer and weld pool dynamics in GMAW", *2009 ASME Summer Heat Transfer Conference*, San Francisco, California, July 19-23, 2009.
  6. Z.H. Rao, **J. Hu**, S.M. Liao and H. L. Tsai, "Study the shielding gas effects on transport phenomena in GMAW arc", *20<sup>th</sup> International Symposium on Transport Phenomena (ISTP20)*, Victoria, British Columbia, Canada, July 7-10, 2009.
  7. L. Zhang, X. Xiong and **J. Hu**, "Integrating Alternative Energy Technology into Engineering Education", *2009 ASEE Annual Conference & Exposition*, Austin, TX, June 14-17, 2009.
  8. X. Xiong, L. Zhang and **J. Hu** and L. Hmurcik, "Introducing the Small World: Developing MEMS/Nanotechnology Curriculum", *2009 ASEE Annual Conference & Exposition*, Austin, TX, June 14-17, 2009.
  9. K. Ren, **J. Hu**, X. Xiong, L. Zhang and J. Wei, "Validation of Turbulence Models in STAR-CCM+ by N.A.C.A. 23012 Airfoil Characteristics", *2009 ASEE Northeast Section Conference*, University of Bridgeport, April 3-4, 2009.
  10. K. Karuppanan, X. Xiong, L. Zhang, and **J. Hu** "Fault Simulation of Surface-micromachined MEMS Accelerometer", *2009 ASEE Northeast Section Conference*, University of Bridgeport, April 3-4, 2009.
  11. L. Zhang, X. Xiong and **J. Hu**, "Developing a New Graduate Program in Sustainable Energy Engineering", *2009 ASEE Northeast Section Conference*, University of Bridgeport, April 3-4, 2009.
  12. Z.H. Rao, **J. Hu**, S.M. Liao and H. L. Tsai, "Determination of Equilibrium Wire Feed Speeds for a Stable GMAW Process", *ASME-IMECE*, Boston, MA, October 31-November 6, 2008.
  13. G. Xu, **J. Hu** and H. L. Tsai, "Modeling of Arc Plasma and Metal Transfer in 3D Gas Metal Arc Welding", *19<sup>th</sup> International Symposium on Transport Phenomena (ISTP19)*, Reykjavik, Iceland, August 17-21, 2008.
  14. **J. Hu**, L. Zhang and X. Xiong, "Teaching Computational Fluid Dynamics (CFD) to Design Engineers", *2008 ASEE Annual Conference & Exposition*, Pittsburgh, PA, June 22-25, 2008.
  15. W. Luo, F. Chen, and **J. Hu**, "Improvement of Low Strain Pile Integrity Test", *2008 New England ASEE Conference*, West Point, NY, March 2008.
  16. **J. Hu** and H. L. Tsai, "Modeling Three-Dimensional Gas Metal Arc Welding with Groove", *ASME-IMECE*, Seattle, Washington, 2007.
  17. **J. Hu**, H. Guo and H. L. Tsai, "Weld Pool Dynamics and the Formation of Ripples in 3D Gas Metal Arc Welding", *ASME-IMECE*, Seattle, Washington, 2007.
  18. **J. Hu**, "Simulation of Turbulent Separated Flow Using Star-ccm+", *STAR America's Conference*, Detroit, Michigan, 2007.
  19. **J. Hu** and H. L. Tsai, "Droplet Acceleration in the Arc", *IEEE International Conference on Industrial Electronics, Technology & Automation (IETA06)*, Bridgeport, Connecticut, 2006.
  20. **J. Hu**, H. L. Tsai and P. C. Wang, "Effects of Welding Current on Metal Transfer and Weld Pool Dynamics in Gas Metal Arc Welding", *ASME-IMECE*, Chicago, Illinois, 2006.

21. **J. Hu**, H. Guo, G. Xu and H. L. Tsai, "A Comprehensive 3-D Model on Gas Metal Arc Welding", *International Symposium on Computer-Aided Welding Engineering*, Jinan, Shandong, China, 2006.
22. **J. Hu**, H. L. Tsai, "Numerical Modeling of Welding Current Effects in Gas Metal Arc Welding", *9th AIAA/ASME Joint Thermophysics and Heat Transfer Conference*, San Francisco, California, 2006.
23. **J. Hu**, H. L. Tsai and P. C. Wang, "Modeling of Transport Phenomena in Gas Metal Arc Welding", *4<sup>th</sup> International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT)*, Cairo, Egypt, 2005.
24. **J. Hu**, H. L. Tsai and P. C. Wang, "Numerical Modeling of GMAW Arc", *IEEE International Conference on Industrial Electronics, Technology & Automation (IETA05)*, Bridgeport, Connecticut, 2005.
25. **J. Hu** and H. L. Tsai, "Fluid Flow and Weld Pool Dynamics in Dual-Beam Laser Keyhole Welding", *ASME-IMECE*, Washington, D.C., 2003.
26. **J. Hu**, H. L. Tsai, and Y. K. Lee, "Modeling of Weld Pool Dynamics During Dual-Beam Laser Welding Process", *ICALEO*, Jacksonville, Florida, 2003.
27. **J. Hu** and H. L. Tsai, "Modeling the Transport Phenomena during Dual Beam Laser Welding Process", *CLEO/Europe*, Munich, Germany, 2003.
28. **J. Hu**, "Modeling Gas Metal Arc Welding of Door Hinge", *GM Research & Development Center Research Report*, 2001.
29. J. Yin, **J. Hu**, L. Zhou, and C. Zheng, "A Second-Order-Moment-PDF Turbulence-Chemistry Model for NO<sub>x</sub> Formation in Coal Combustion", *Chinese Engineering Thermodynamics Association Combustion Academic Conference*, Beijing, China, 1998.
30. Q. Zhu, J. Cheng, **J. Hu**, L. Xiao, B. Yao, H. Zeng, "NO<sub>x</sub> Formation Mechanism of Different Types of Coal", *Chinese Engineering Thermodynamics Association Combustion Academic Conference*, Beijing, China, 1998.

## POSTER PRESENTATIONS

1. J. Huang and **J. Hu**, "Thermal Management in the Design of a LED Lamp", *2011 ASEE Northeast Section Conference*, University of Hartford, Hartford, CT, April 29-30, 2011.
2. Y. Liu and **J. Hu**, "Thermal and Stress Analysis of a Multiple High Power LED Array", *2011 ASEE Northeast Section Conference*, University of Hartford, Hartford, CT, April 29-30, 2011.
3. D. Gao and **J. Hu**, "Micro Channel Heat Sink", *2011 ASEE Northeast Section Conference*, University of Hartford, Hartford, CT, April 29-30, 2011.
4. F. Ren and **J. Hu**, "Coupled Thermal Analysis of a Quad Flat Package", *2011 ASEE Northeast Section Conference*, University of Hartford, Hartford, CT, April 29-30, 2011.
5. Z. Qin and **J. Hu**, "Design and Simulation of an Automobile Radiator", *2011 ASEE Northeast Section Conference*, University of Hartford, Hartford, CT, April 29-30, 2011.
6. **J. Hu**, Z.H. Rao and H.L. Tsai, "Modeling of the Transport Phenomena in GMAW Arc under the Shielding of Ar-He Mixtures", Faculty Research Day, University of Bridgeport, Feb. 11, 2011.
7. **J. Hu**, Z.H. Rao and H.L. Tsai, "Modeling of the Transport Phenomena in Metal Transfer and Weld Formation of GMAW under the Shielding of Ar-He Mixtures", Faculty Research Day, University of Bridgeport, Feb. 11, 2011.

8. F. Song and **J. Hu**, "Simulation of the External Flow around a Vehicle", *2010 ASEE Northeast Section Conference*, Wentworth Institute of Technology, Boston, MA, May 7-8, 2010.
9. F. Song and **J. Hu** and T. Ting, "Particle Contamination in a Ventilated Room", *2009 ASEE Northeast Section Conference*, University of Bridgeport, Bridgeport, CT, April 3-4, 2009.
10. V. Joshi and **J. Hu**, "Surge Protection through Restrictor Plate", *2009 ASEE Northeast Section Conference*, University of Bridgeport, Bridgeport, CT, April 3-4, 2009. (**Honorable mention award**)
11. K. Ren, W. Luo, **J. Hu** and L. Zhang, "Gas Sensor with Novel Magnetic Microvalve", *2009 ASEE Northeast Section Conference*, University of Bridgeport, April 3-4, 2009.
12. W. Luo, **J. Hu**, and J. Wei, "CFD Simulation and Validation of Airfoil Characteristics", 2008 CT Space Grant College Consortium Award Reception, Hartford, CT, May 2008.
13. P. Rajamanickam, **J. Hu**, and T. Ting, "Car Radiator Inlet Design Using CFD", *2008 New England ASEE Conference*, West Point, NY, March 2008. (**Honorable mention award**)
14. A. Aphale, G. Patel, **J. Hu**, "Turbulent Flow in an Asymmetric diffuser", *2008 New England ASEE Conference*, West Point, NY, March 2008.
15. G. Patel, A. Aphale, and **J. Hu**, "A Study of Thermal Spreading Resistance", *2008 New England ASEE Conference*, West Point, NY, March 2008.
16. K.R. Singh (Dangol) and **J. Hu**, "System Level Thermal Analysis of an Electronic System under Different Conditions", *2007 New England ASEE*, Kingston, RI, April 2007.
17. K.R. Singh (Dangol) and **J. Hu**, "Design of Roshi Khola Micro Hydropower Plant", *2007 New England ASEE Conference*, Kingston, RI, April 2007.
18. **J. Hu** and H.L. Tsai, "Heat and Mass Transfer in Gas Metal Arc Welding", Graduate Research Show Case, University of Missouri-Rolla, 2005

## ORAL PRESENTATIONS

1. Invited Seminar, Pegasus Vertex, Inc., 2010
2. Invited Seminar, University of Bridgeport, 2010
3. Paper Presentation, ASME Summer Heat Transfer, 2009
4. Paper Presentations, ASEE Annual Conference & Expositions, 2008
5. Paper Presentations, ASME-IMECE, 2008
6. Invited Seminar, University of Bridgeport, 2008
7. Paper Presentations, ASME-IMECE, 2007
8. Paper Presentation, STAR America's Conference, 2007
9. Paper Presentation, IETA06, 2006
10. Paper Presentation, ASME-IMECE, 2006
11. Paper Presentation, 9<sup>th</sup> AIAA/ASME JTHTC, 2006
12. Invited Seminar, University of Hartford, 2006
13. Paper Presentation, IETA05, 2005
14. Invited Seminar, Generation Motors R&D Center, 2001

## GRANTS and AWARDS

1. J. Pallis and **J. Hu**, "Multiphysics Modeling of Gas Tungsten Arc Welding", CT Space Grant College Consortium, \$6,000 and \$9,707 UB Matching Fund, 2011, funded.

2. **J. Hu**, “Numerical Modeling of Temperature Profiles in Drilling Wells”, Pegasus Vertex, Inc., \$20,001, 2010, funded.
3. **J. Hu** and H.L. Tsai, “Modeling Transport Phenomena and Shielding Gas Effects in Gas Metal Arc Welding”, University of Bridgeport Seed Grant, Office of Sponsored Research at UB, \$7,000, 2009, funded.
4. **J. Hu**, “CFD Validation and Simulation of Airfoil Characteristics”, CT Space Grant College Consortium, \$6,000 and \$12,000 in UB Matching Funds, 2007, funded.

## **WORKSHOPS & TRAININGS**

1. Student Retention: Evaluating and Establishing Targets, Center for Excellence in Learning and Teaching, University of Bridgeport, CT, 2010
2. Engaging Faculty in Designing Effective Assessment, University of Bridgeport, CT, 2010
3. STAR Global Forum 2010, “Simulation for Energy Engineering”, Houston, TX, 2010
4. Advanced CFD Training with STAR-CCM+, Houston, TX, 2010
5. The fifth International Symposium on Computational Wind Engineering, Chapel Hill, NC, 2010
6. Computational Wind Engineering for the 21<sup>st</sup> Century, Chapel Hill, NC, 2010
7. Integration of Simulation Technology into the Engineering Curriculum (ISTEC) 2008 workshop, Cornell University, Ithaca, NY, 2008
8. STAR-CCM+ (CD-adapco) seminar on Accurately Predicting Complex Cooling Flows and hands on workshop, Plantsville, CT, 2008
9. Building a Connecticut College and University STEM Network: Keeping Students Engaged in STEM by Project Kaleidoscope and Connecticut Conference of Independent Colleges, St. Joseph College, CT, 2008
10. Enhancing Teaching through Proper Techniques, United States Military Academy, NY, 2008
11. Symposium for Aerospace Laser Applications 2008, Hartford, CT, 2008
12. Carbon in the 21<sup>st</sup> Century Conference, University of Connecticut, CT, 2007
13. Laser Applications in Manufacturing Processes Seminar, University of Hartford, CT, 2006
14. STAR-CCM+ (CD-adapco) new user training, Detroit, MI, 2006
15. COMSOL Multiphysics Workshop, Hartford, CT, 2006
16. Flowtherm web Demos and web seminars, 2005 – present
17. NSF Regional Grants Conference, College Park, Maryland, 2006
18. DoD SBIR Proposal Workshop, New Britain CT, 2006
19. TRUST WISE Program, University of California – Berkely, CT, 2006
20. Laser Hole Drilling Workshop, Hartford, CT, 2005

## **PROFESSIONAL AFFILIATION**

1. ASM International (ASM) (2011 – present)
2. American Welding Society (AWS) (2010 – present)
3. American Society of Mechanical Engineers (ASME) (2001 – present)
4. Member of Heat Transfer Division (HTD) K-15 Committee on Transport Phenomena in Manufacturing and Materials Processing
5. American Society for Engineering Education (ASEE) (2007 – 2010)
6. Society of Women Engineering (SWE) (2008 – 2010)

## **HONORS & ACTIVITIES**

1. NSF-TRUST fellowship (\$2500, 2006)
2. Advanced Communicator Bronze, Toastmasters International (2006)
3. Competent Leadership, Toastmasters International (2003)
4. Competent Toastmaster, Toastmasters International (2003)
5. President of University Orators (Toastmasters Club), Rolla, MO (2003, 2004)
6. Vice President of Chi Alpha Ministries, UMR, MO (2002 – 2004)
7. Dean's Fellowship, UMR, Rolla, MO (1999 – 2002)
8. Graduate Fellowship, UMR, Rolla, MO (1999 – 2000)
9. Excellent Academic Paper, Huazhong University of Science & Technology, China, (1997)
10. Excellent Graduate, Huazhong University of Science & Technology, China, (1996)
11. Academy Fellowship, Huazhong University of Science & Technology, China, (1992 – 1996)

## **PROFESSIONAL SERVICE**

### **REVIEWER and PANELIST of PROPOSALS**

National Science Foundation

CT Space Grant

### **REVIEWER of JOURNALS**

1. International Journal of Heat and Mass Transfer
2. ASME Journal of Heat Transfer
3. ASME Journal of Manufacturing Science and Engineering
4. ASME Journal of Thermal Science and Engineering Applications
5. ASME Journal of Pressure Vessel Technology
6. Journal of Physics D: Applied Physics
7. Journal of Applied Physics
8. Metallurgical and Materials Transactions B
9. Numerical Heat Transfer, Part A: Applications
10. Journal of Enhanced Heat Transfer
11. AIAA Journal
12. IEEE Transactions on Automation Science and Engineering
13. Journal of Micromechanics and Microengineering
14. Applied Physics B: Lasers and Optics
15. Optics & Laser Technology
16. International Journal of Abrasive Technology
17. Welding Journal
18. Sensors
19. Computer Science Journals

### **REVIEWER of BOOK CHAPTERS**

Prototyping of Robotic Systems: Applications of Design and Implementation

### **REVIEWER of CONFERENCES**

1. ASME Summer Heat Transfer Conference
2. ASME- International Mechanical Engineering Congress (IMECE)
3. International Conference on Industrial Electronics, Technology & Automation (IETA)
4. European Control Conference
5. ASEE Annual Conference & Exposition

6. ASEE Zone I Conference
7. ASEE Northeast Section Conference

#### **CONFERENCE ORGANIZER**

1. Session Chair, ASEE St. Lawrence Section papers, 2009 ASEE Northeast Section Conference, University of Bridgeport, April 3-4, 2009.
2. Session Chair, “Laser Applications in Manufacturing and Materials Processing”, ASME 2008 International Mechanical Engineering Congress (IMECE), Boston, MA, October 31 - November 6, 2008.
3. Session Chair, “Grinding Applications in Manufacturing and Materials Processing”, ASME 2008 International Mechanical Engineering Congress (IMECE), Boston, MA, October 31 - November 6, 2008.
4. Session Moderator, “New Trends in Graduate Engineering Education”, 2008 ASEE Annual Conference & Exposition.
5. Topic/Symposium and Session Co-Chair, “Laser Applications in Manufacturing and Materials Processing”, ASME 2007 International Mechanical Engineering Congress (IMECE), Seattle, WA, November 10-16, 2007.
6. Technical Committee, International Conference on Industrial Electronics, Technology & Automation (IETA), Bridgeport, CT, December, 2005-2010.

#### **OTHER PROFESSIONAL SERVICES**

1. UB Campus Director of Connecticut Space Grant College Consortium, 2007 – 2010.
2. Lecturer in the Engineering Week of ConnCAP program, 2009.
3. Invited speaker on Career Day of ConnCAP program, 2009.
4. Invited Speaker, UB ELI “Bridge to UB” reception, Oct. 16, 2009.
5. Judge for the Student Poster Competition at 2009 ASEE Northeast Section Conference.
6. Judge for the Student Poster Competition at 2008 ASEE Northeast Section Conference.
7. Judge for the Bridgeport Public School Science Fair, 2008
8. Judge for the Student Poster Competition at 2007 ASEE Northeast Section Conference.
9. Judge for the Olin-Yale-Bayer-NHPS Citywide Science Fair, 2006, 2007.
10. Webmaster of American Society of Mechanical Engineers (ASME) K-15 Committee

#### **UNIVERSITY SERVICE**

1. School of Engineering Personnel Committee (2011 – present)
2. ME School Library Representative (08/2005 – present)
3. University Faculty Council and Senate Representative (09/2006 – 09/2010)
4. Sustainable Energy Engineering Committee of School of Engineering (2009 – present)
5. Biomedical Program Committee of School of Engineering (2007 – 2008)
6. Academic Concerns Committee of the Faculty Council (10/2007 – 2008)
7. Dean’s Assistant Awards Committee (2008 – 2009)
8. School of Engineering Merit Pay Committee (2008)
9. Technology Management Ph.D. Committee (2008)
10. ME/TCMG Faculty Search Committee (2006)
11. ME Faculty Search Committee (2007, 2008)
12. Appeals Committee for Undergraduate Academic Separation (2007)

#### **COURSE INSTRUCTIONS**

1. MEEG 410 Advanced Fluid Dynamics



2. MEEG 463 Advanced Heat Transfer
3. MEEG 503 Electronics Cooling
4. MEEG 512 Computational Fluid Dynamics
5. MEEG 505 Welding Engineering
6. MEEG 426 Materials Selection for Mechanical Engineers
7. MEEG 223 Material Science for Engineers
8. ENGR 111 Introduction to Engineering