

XIAOPING QIAN

Assistant Professor
Department of Mechanical, Materials and Aerospace Engineering
Illinois Institute of Technology
Engineering One Building, Room 243
Chicago, IL 60616-3793

Email: qian@iit.edu
Tel: 312-567-5855
Fax: 312-567-7230

Contents

1	Education	3
2	Professional History	4
3	Honors and Awards	5
4	Teaching Interest and Courses Taught	6
	Teaching Interest.....	6
	Courses Taught	6
5	Research Interest and Support	7
	Research Interest.....	7
	Research Support	7
	Equipment Acquisition	7
6	Publications and Patents	9
	Journal Publications	9
	Book Chapter	11
	Patents.....	11
	Conference Publications	11
	Abstract-Referenced Conference Papers	13
	Presentations in Conferences	14
	Publications in Popular Press.....	14
	Invited Presentations.....	14
7	Students and Post-doc Supervised	17
	Current Students and Post-docs	17
	Former Students and Post-docs.....	17
8	Professional Services	19
	Editorial Activities	19
	Review Activities.....	19
	Conference Organization	20
	External Committee	20
	Professional Affiliation.....	20
9	Service to the University	21
	University Committee.....	21
	Department Committee.....	21

1 Education

- Ph.D.** University of Michigan, Ann Arbor
2001 Mechanical Engineering
Dissertation: *Feature Methodology for Heterogonous Object Realization*
Advisor: Debasish Dutta
- M.S.** Huazhong University of Science and Technology, China
1995 Mechanical Engineering
Thesis: *Feature based parametric modeling*
Advisor: Ji Zhou, Yifang Zhong
- B.S.** Huazhong University of Science and Technology, China
1992 Mechanical Engineering

2 Professional History

Guest Researcher National Institute of Standards and Technology
2006 Summer Nano-Manufacturing Lab
Host: John Villarrubia

**ASEE/AFOSR Summer
Faculty Fellow** Air Force Wright-Patterson Research Lab
Human Effectiveness Directorate
2005 Summer Host: Brian Tsou

Assistant Professor Illinois Institute of Technology
2004 ~ present Mechanical, Materials and Aerospace Engineering

Research Scientist General Electric Global Research Center, Schenectady, NY
2001 ~ 2004 Product Realization Lab

Summer Intern Ford Motor Scientific Research Lab, Dearborn, MI
1999 Powertrain Lab

CAD Engineer Gaohua CAD Inc.
1995 ~ 1997 Beijing, China

3 Honors and Awards

2009 *Best Automation Paper Award Finalist*, for the paper entitled “Adaptive Scanning in Atomic Force Microscopy”, 2009 IEEE International Conference on Robotics and Automation (ICRA 2009).

IIT/Sigma Xi Award for Excellence in University Research for Outstanding Accomplishments in Research and Scholarship, Junior Faculty category, April 2009

Invited participant in the NSF workshop for developing *Roadmap for Additive Manufacturing*, March 30 – 31, 2009 NSF, Arlington, VA.

2008 Invited participant in the NSF workshop on *Design as a Discipline*, Nov 6 ~ 7, 2008, University of Michigan, Ann arbor, MI

Excellence in Research Award, Mechanical, Materials and Aerospace Engineering Department, IIT, 2008

Greatest Number of Research Awards for an individual principal investigator, IIT, 2008

2006 ~ 2008 *NSF Fellowship for Summer Institute on Nano Mechanics and Materials* at Northwestern University, Evanston, IL

2007 *Society of Manufacturing Engineers Research Initiation Award*, 2007

2005 *ASEE/AFOSR Summer Faculty Fellow* at Air Force Wright-Patterson Research Lab, Human Effectiveness Directorate, Dayton, OH, summer 2005

Invited participant in NSF workshop on *Mathematical Modeling in Engineering Education*, Purdue University, Feb 28 ~ March 2, 2005

2004 *Young Innovator Award*, Inspection and Manufacturing Technologies, GE Global Research, Schenectady, NY, 2004

4 Teaching Interest and Courses Taught

Teaching Interest

Graduate Computer-Aided Design
 Nanoscale Imaging and Manipulation
 Design Optimization

Undergraduate Mechanical Engineering Design
 CAD/CAM

Courses Taught

Course	Semester	Students Enrolled
MMAE306 Analysis and Design of Machine Elements	Spring 2008	49
	Fall 2004	41
MMAE445 CAD/CAM with Numerical Control	Fall 2005	25
	Fall 2006	41
	Fall 2007	50
	Fall 2008	38
MMAE545 Advanced CAD/CAM	Spring 2005	13
	Spring 2006	28
	Spring 2007	27
	Spring 2008	20
	Spring 2009	36
MMAE553 Principles of Computational Sensing and Modeling	Fall 2006	5
MMAE556 Nanoscale Imaging and Manipulation	Fall 2008	8

5 Research Interest and Support

Research Interest

General Area	Design, manufacturing, robotics and automation
Research Theme	Computational design and manufacturing Geometric and physical modeling
Current Activities	Computer-aided micro/nano design and manufacturing Sensing and geometry processing

Research Support

Total \$1.8 million (my share), including 4 NSF grants, 1 AFOSR grant and projects from General Electric.

Equipment Acquisition

Atomic force microscopy	Model: Agilent 5500
2007	Cost: \$105k
Laser probe	Model: Renishaw
2007	Source: GE Aviation
Laser point sensor	Model: Optimet line sensor
2007	Source: GE Aviation
Laser line sensor	Model: Optimet point sensor
2006	Source: GE Aviation
Linear stage	Model: Three-axis linear stage
2006	Source: GE Research
Sinewave	Model: calibration artifact
2006	Source: GE Aviation
Area scanner	Model: Minolta Vivid 910

2005 Cost: \$45k

6 Publications and Patents

Journal Publications

Total 26 journal articles

1. Zhao, W.* , Xu, K., Qian, X., and Wang, R., "Atomic force microscopy based nano manipulation," ASME Transactions *Journal of Manufacturing Science and Engineering, Special Issue on Nano Manufacturing, under review.*
2. Li, Z., Qiu, D., Sridharan, I., Qian, X. and Wang, R., "Spatially Resolved Quantification of E-cadherin on Target hES Cells," *The Journal of Physical Chemistry, under review.*
3. Yang, P.* and Qian, X., "A general, accurate procedure for calculating molecular interaction force," *Journal of Colloid and Interface Science*, Vol. 337, No. 2, pp. 594 - 605, Sep 2009.
4. Yang, P.* , Schmidt, T., and Qian, X., "Direct Digital Design and Manufacturing from Massive Point-Cloud Data," *Computer-Aided Design & Applications*, Vol. 6, No. 5, pp. 685 - 699, 2009.
5. Huang, Y.* , Qian, X. and Chen, S., "Multi-Sensor Calibration through Iterative Registration and Fusion," *Computer-Aided Design*, Vol. 41, No. 4, pp. 240 -255, April 2009.
6. Yang, P.* and Qian, X., "Direct Boolean intersection between acquired and designed geometry," *Computer-Aided Design*, Vol. 41, No. 2, pp. 81 – 94, Feb 2009.
7. Zhang, D.* , Yang, P., and Qian, X., "Adaptive NC Path Generation from Massive Point Data with Bounded Error," ASME Transactions *Journal of Manufacturing Science and Engineering*, Vol. 131, 011001-113, Feb 2009.
8. Tian, F.* , Qian, X., and Villarrubia, J. S., "Blind estimation of general tip shape in AFM imaging," *Ultramicroscopy*, Vol. 109, No. 1, pp. 44 - 53, Dec 2008.
9. Yang, P.* and Qian, X., "Adaptive Slicing of Moving Least Squares Surfaces: Toward Direct Manufacturing from Point Cloud Data," ASME Transactions *Journal of Computing and Information Science in Engineering*, Vol. 8, No. 3, Sep 2008.
10. Huang, Y.* and Qian, X., "An efficient sensing localization algorithm for free-form surface digitization," ASME Transactions *Journal of Computing and Information Science in Engineering*, Vol. 8, No. 2, June 2008.

11. Qian, X. and Villarrubia, J. S., "General Three-Dimensional Image Simulation and Surface Reconstruction in Scanning Probe Microscopy using a Dixel Representation," *Ultramicroscopy*, Vol. 107, No. 13, pp. 29 - 42, Dec 2007.
12. Huang, Y.* and Qian, X., "Dynamic B-spline Surface Reconstruction: Closing the Sensing-and-Modeling Loop in 3D Digitization," *Computer-Aided Design*, Vol. 39, No. 11, pp. 987-1002, Nov 2007.
13. Huang, Y.* and Qian, X., "A dynamic sensing-and-modeling approach to 3D point-and-area-sensor integration," *ASME Transactions Journal of Manufacturing Science and Engineering*, Vol. 129, pp. 623- 635, June 2007.
14. Yang, P.* and Qian, X., "A B-spline based Approach to Heterogeneous Object Design and Analysis," *Computer-Aided Design*, Vol. 34, No. 2, pp. 95 -111, Feb 2007.
15. Qian, X., Robinson, D. M., and Ross, J., "Admissible Transformation Volume for Part Dimensional Quality Gauging," *Computer-Aided Design*, Vol. 37, No. 13, pp. 1335 - 1352, Nov 2005.
16. Qian, X. and Dutta, D., "Feature based design for heterogeneous objects," *Computer-Aided Design*, Vol. 36, No. 12, pp. 1263-1278, Oct 2004.
17. Qian, X. and Dutta, D., "Direct Face Neighborhood Alteration for Heterogeneous Object Modeling," *Computers and Graphics*, Vol. 27, No. 6, pp. 943-961, Dec 2003.
18. Qian, X. and Harding, K. G., "A Computational Approach for Optimal Sensor Setup," *SPIE Journal Optical Engineering*, Vol. 42, No. 5, pp. 1238-1248, May 2003.
19. Qian, X. and Dutta, D., "Physics-based Modeling for Heterogeneous Objects," *ASME Transactions Journal of Mechanical Design*, Vol. 125, pp. 416-427, Sep 2003.
20. Qian, X. and Dutta, D., "Design of Heterogeneous Turbine Blade," *Computer-Aided Design*, Vol. 35, No. 3, pp. 319-329, March 2003.
21. Qian, X. and Dutta, D., "Feature Based Fabrication in Layered Manufacturing," *ASME Transactions Journal of Mechanical Design*, Vol. 123, No. 3, 2001, pp 337-345.
22. Qian, X., Xiang, W, and Zhou, J., "Contraint Driving Variational Geometry System ", *Journal of Computer Engineering*, China, Vol. 21, No.1, Jan 1995, pp.27-30.
23. Qian, X., Xiang, W., and Zhou, J., "GHCAD: A Feature_based Design System ", *Journal of Computer-Aided Drafting, Design and Manufacturing*, Vol. 5, No.1, June 1995, pp.33-45.

24. Qian, X., Xiang, W., and Zhou, J., "Rules based variational geometry system", *Journal of Computer-Aided Design and Computer Graphics*, Vol.7, No.3, July, 1995.
25. Xiang, W., Qian, X., and Zhou, J., "3D Parametric Modeling based on Features", *China Mechanical Engineering*, Vol. 5, No. 4, Aug 1994, pp. 4-6.
26. Jian, W., and Huang, H., Qian, X., and Zhou, J., "FMT: A Parametric Feature-based Modeling System", *China Journal of High Technology Letter*, Vol. 4, No. 7, July 1994, pp. 7-11.

Book Chapter

Qian, X. and Dutta, D., "Feature Methodologies for Heterogeneous Object Realization", Chapter 7, *Software Solutions to Rapid Prototyping*, Gibson, I. (Ed), Professional Engineering Publishing, UK, 2002.

Patents

Harding, K. G., Qian, X., and Demuth, R. S., *Methods and apparatus for generating a mask*, United State Patent 7336374, Issue date: 2/26/2008.

Hu, Q., Harding, K. G., Ross, J., and Qian, X., *Methods and apparatus for inspecting an object*, United States Patent 7301165, Issue date: 11/27/2007.

Qian, X. and Harding, Kevin G., *Coordinated polarization for shiny surface measurement*, United States Patent 7092094, Issue date: 8/15/2006.

Conference Publications

Total 22 refereed conference papers

1. Yang, P. and Qian, X., "NURBS based molecular force calculation," 2009 SIAM/ACM Joint Conference on Geometric and Physical Modeling, poster session, Oct 5 – 9, 2009.
2. Zhao, W. and Qian, X., "Mathematical morphology on multi-dexel representation," Proceedings of ASME 2009 International Design Engineering Technical Conferences & Computers and Information in Engineering Conference (IDETC/CIE 2009), San Diego, CA, Aug 30 – Sep 2, 2009.
3. Yang, P., Schmidt, T., and Qian, X., "Direct Digital Design and Manufacturing from Massive Point-Cloud Data," Computer-Aided Design Conference 2009 (CAD'09),

Reno, Nevada, June 8-12, 2009.

4. Zhang, D. and Qian, X., "Adaptive scanning in atomic force microscopy," Proceedings of 2009 *IEEE International Conference on Robotics and Automation* (ICRA 2009), Kobe, Japan May 12 ~ 17, 2009.
5. Zhang, D., and Yang, P., and Qian, X., "Adaptive NC Path Generation from Massive Point Data with Bounded Error," Proceedings of the *ASME 2008 International Design Engineering Technical Conferences & Computers & Information in Engineering Conference*, New York, NY, Aug 2008.
6. Tian, F. and Qian, X., "Blind estimation of general tip shape in atomic force microscopy," Proceedings of the *ASME 2007 International Design Engineering Technical Conferences & Computers & Information in Engineering Conference*, Las Vegas, Nevada, Sep 2007.
7. Huang, Y. and Qian, X., "An efficient sensing localization algorithm for free-form surface digitization," *Proceedings of the ASME 2007 International Design Engineering Technical Conferences & Computers & Information in Engineering Conference*, Las Vegas, Nevada, Sep 2007.
8. Yang, P and Qian, X., "Adaptive slicing of moving least squares surfaces: toward direct manufacturing of point-set surfaces," *Proceedings of the ASME 2007 International Design Engineering Technical Conferences & Computers & Information in Engineering Conference*, Las Vegas, Nevada, Sep 2007.
9. Yang, P. and Qian, X., "Direct computing of surface curvatures for point-set surfaces," *Proceedings of 2007 IEEE/Eurographics Symposium on Point-based Graphics(PBG), Prague, Czech Republic, Sep. 2007.* (Matlab source code available)
10. Qian, X., Villarrubia, J., Tian, F. and Ronald, D., "Image simulation and surface reconstruction of undercut features in atomic force microscopy," *Metrology, Inspection, and Process Control for Microlithography XXI. Edited by Archie, Chas N., Proceedings of the SPIE*, Volume 6518, pp. 651811, 2007.
11. Qian, X. and Yang, P., "Integrated Design and Analysis for FGM," Multiscale and Functionally Graded Materials Conference 2006 (FGM 2006), Honolulu, Hawaii, Oct 15-18, 2006.
12. Huang, Y. and Qian, X., "A dynamic sensing-and-modeling approach to 3D point-and-area-sensor integration," 2006 ASME International Conference on Manufacturing Science and Engineering, Oct 8 -11, 2006, Ann Arbor, MI, USA.
13. Huang, Y. and Qian, X. "A stochastic approach to surface reconstruction," Proceedings of IDETC/CIE 2006 , ASME 2006 International Design Engineering Technical Conference & Computers and Information in Engineering Conference,

September 10-13, 2006, Philadelphia, Pennsylvania, USA.

14. Qian, X. and Yang P., "Computing Admissible Transformation Volume," ASME Design Engineering Technical Conferences, CA, Sept 2005.
15. Harding, Kevin G, and Qian, X, "Two- and Three-Dimensional Vision Systems for Inspection, Control and Metrology," Proceedings of SPIE, Photonics East, Vol. 5265-16, Oct 29-30, 2003
16. Qian, X. and Harding, Kevin G., "Partitioning positional and normal space for fast occlusion detection," ASME Design Engineering Technical Conferences, Chicago, IL, Sept, 2003.
17. Qian, X. and Dutta, D., "Physics based B-spline heterogeneous object modeling," ASME Design Engineering Technical Conferences, Pittsburgh, Pennsylvania, Sept 2001
18. Li, X., Mikulec, T., Dai, W., and Qian, X., "A Generic Methodology for Chamber Flame Geometry Modeling," SAE Technical Paper Series 2000-01-2797, SAE International Fall Fuels and Lubricants Meeting and Exposition Baltimore, Maryland, October 16-19, 2000.
19. Qian, X. and Dutta, D., "Feature-based Slicing for Layered Manufacturing", ASME Design Engineering Technical Conference, Las Vegas, Nevada, September, 1999.
20. Qian, X. and Dutta, D., "An Architecture for Interoperability of Layered Manufacturing Data" , ASME Design Engineering Technical Conference, Atlanta, September, 1998
21. Qian, X., Xiang, W., and Zhou, J., "Research and development in feature-based parametric modeling", Fourth Int. Conference on Computer Aided Design and Computer Graphics, Wuhan, China, Oct, 1995, published by SPIE.
22. Xiang, W., Huang, T., Qian, X., and Zhou, J., "An Approach to Feature-based Parametric Solid Modeling", Proceedings of The Third International Conference on Computer-Aided Design and Computer Graphics, by International Academic Publisher, Beijing, 1993, pp.406-411.

Abstract-Referenced Conference Papers

1. Qian, X. and Dutta, D., "Design for Layered Manufacturing", Solid Freeform Fabrication Symposium 1999, Austin, Texas, Aug 9-11, 1999.
2. Qian, X. and Dutta, D., "Features in Layered Manufacturing", SIAM Workshop on

Mathematical Foundations for Features in Computer-Aided Design, Engineering and Manufacturing, Oct 22-23, 98, Troy, Michigan.

3. Qian, X. and Dutta, D., "Features in the Layered Manufacturing of Heterogeneous Objects", Solid Freeform Fabrication Symposium 1998, Austin, Texas, Aug 10-12, 1998.

Presentations in Conferences

1. Qian, X., "Direct Computing of Surface Curvatures in Point-Set Surfaces," 10th SIAM Conference on Geometric Design and Computing, San Antonio, TX, Nov 4 – 8, 2007,
2. Qian, X., "Multi-sensor Coordinate Metrology", 2006 Manufacturing and Measurement Conference & Workshop, sponsored by Quality Magazine, Nashville, TN, April 24 – 28, 2006.

Publications in Popular Press

Harding, K. G. and Qian, X., "Phase Shifting Based 3D Systems," Machine Vision Technical Paper,
http://www.machinevisiononline.org/public/articles/Phase_Shifting_3D_Systems.pdf,
May 2004.

Invited Presentations

2009 "Dynamic sensing and geometry processing in 3D digitization," AFOSR Program Review Meeting, June 5th, Arlington, VA, June 5th, 2009.

"Direct Digital Design and Manufacturing from Massive Point Cloud Data," Manufacturing Systems Integration Division, NIST, June 4th, 2009.

"Direct Digital Design and Manufacturing from Massive Point Cloud Data," School of Mechanical Engineering and Science, Huazhong University of Science and Technology, Wuhan, China, May 19th 2009.

"Resolving tip effects in scanning probe microscopy," Nano-Micro Robot & Mechatronics Workshop: System Development of Nano-Micro Applications of 2009 IEEE International Conference on Robotics and Automation, May 12 - 17, 2009, Kobe, Japan.

- 2008 “Direct Digital Design and Manufacturing from Massive Point Cloud Data,” Department of Electrical and Computer Engineering, University of Pittsburgh, Nov 19th 2008.
- “Direct Digital Design and Manufacturing from Massive Point Cloud Data,” Invited presentation at Symposium on Design Optimization and Simulation-based Design Applications of HyperWorks OptiStruct, Robert R. McCormick School of Engineering, Northwestern University, Nov 11, 2008.
- “Direct Digital Design and Manufacturing from Massive Point Cloud Data,” Invited Presentation at Perceptron, Polymoth, MI, Nov 7th, 2008.
- “Direct Digital Design and Manufacturing from Massive Point Cloud Data,” Summa Minerva, Faculty of Design, Delft University of Technology, Netherland, Sep 25, 2008.
- “Direct Design and Manufacturing from Acquired Point Cloud,” Illinois Society of Professional Engineers North Suburban Chapter, Des Plaines, IL, May 21, 2008.
- “Direct Design and Manufacturing from Acquired Point Cloud,” ASME Chicago Section, at IIT, March 12, 2008.
- “Point-set surfaces in CAD/CAM,” Applied Math Department, Illinois Institute of Technology, March 4, 2008
- 2007 “Dynamic Sensing-and-Modeling in Multi-sensor Integration,” Manufacturing Seminar, the University of Michigan, Ann Arbor, MI, Nov 8th, 2007.
- “Dynamic Sensing-and-Modeling: Closing the 3D Digitization Loop,” 2007 AFOSR Sensing Review, Harvard University Campus, Cambridge, MA, June 21, 2007.
- “Dynamic Sensing-and-Modeling: Closing the 3D Digitization Loop,” GE Global Research Center, Niskayuna, NY, June 20, 2007.
- 2006 “Active Multimodality Coordinate Metrology,” Caterpillar, June 19th, 2006.
- “Dynamic sensing-and-modeling for multi-sensor integration,” School of Mechanical Engineering, Purdue University, IN, May 1st 2006.
- "Multi-sensor Coordinate Metrology", 2006 Manufacturing and Measurement Conference & Workshop, sponsored by Quality Magazine, Nashville, TN, April 24 – 28, 2006
- “Solid modeling for functionally gradient parts,” Naval Research Lab, Dec 7th,

2005.

“Solid modeling for functionally gradient parts,” Air Vehicles Directorate, Wright-Patterson AFRL, Oct 21, 2005.

“Sensor Configuration and Data Analysis in Coordinate Metrology,” Lindburgh Lecture, Department of Mechanical Engineering, University of Wisconsin-Madison, Sep 16, 2004.

“Physics-based Modeling for Heterogeneous Objects,” Departmental Seminar, Department of Mechanical Engineering, Columbia University, New York, NY, December 2002.

7 Students and Post-doc Supervised

Current Students and Post-docs

- Postdoctoral Fellow**
1. Wei Zhao July 1st, 2008 ~ present
 - (3) 2. Yu Liu, June 1st, 2009 ~ present
 3. Pinghai Yang, August 15th, 2009 ~ present

- Ph.D. Student**
- (4) 1. Kangmin Xu, August 2008 ~ present
 2. Kang Li, January 2009 ~ present
 3. Arash Kalantari, August 2009 ~ present
 4. Mingming Wang, August 2009 ~ present

- MS student**
- (1) 1. Brent Shumard, August 2008 ~ present

Former Students and Post-docs

- Post-doc**
- (1) Yunbao Huang, May 2005 ~ September 2007
Research: *Multi-sensor Integration*
Ph.D. in Mechanical Engineering from Huazhong University of Science and Technology, China
Currently faculty at Huazhong University of Science and Technology, China

- Ph.D.**
- (1) Pinghai Yang, Jan 2005 ~ August 2009
Dissertation: *Direct Digital Design and Manufacturing from Massive Point-Cloud Data*
Currently post-doc in my lab

- M.S. Thesis Students**
- (4) Tim Schmidt, August 2006 ~ May 2009
Thesis: *Comparison of Direct vs CAD based Research Engineering*

Karthikeyan Kittappan, August 2006 ~ May 2009

Thesis: *Numerical Simulation of Geometrical Factors Affecting
Line Edge Roughness and Line Width Measurement of
Semiconductor Line Using AFM*

Fenglei Tian, August 2006 ~ December 2008

Thesis: *Blind estimation of general tip shape in AFM imaging*

Shiliang Chen, August 2005 ~ May 2008

Thesis: *Extrinsic calibration from multi-sensor systems*

Visiting Yanjie Qiu, Sep 2007 ~ August 2008
Doctoral Shanghai Jiaotong University, China
Students Project: *Morse theory on point-cloud data*
(1)

Undergraduate Daniel Oh
(1) Project: *3D Copier: End-to-End Duplication of Physical Parts*

8 Professional Services

Editorial Activities

Associate Editor ASME Transactions *Journal of Computing and Information Science in Engineering*(JCISE)
2009 ~ present

Associate Editor SME *Journal of Manufacturing Systems*
2008 ~ present

Guest Editor Journal *Computer-Aided Design (CAD)*
Special issue on *Point-based Computational Techniques*
Vol. 41, No. 4, April 2009

Review Activities

Proposal Reviewer NSF Panels in Engineering Design, Manufacturing Machines and Equipment 2005, 2006, 2007, 2009
Israel Science Foundation 2008
AFOSR, 2005

Journal Reviewer ASME Transactions Journal of Mechanical Design,
ASME Transactions Journal of Manufacturing Science and Engineering
ASME Transactions Journal of Computing and Information Science in Engineering
Computer-Aided Design
Visual Computer
Computers in Industry
SME Journal of Manufacturing Systems
Advances in Engineering Software
International Journal of Modelling and Simulation
Measurement Science and Technology

Review Coordinator ASME/IDETC Conference, 2003, 2004, 2005, 2006, 2007, 2008, 2009

Conference Organization

Executive Committee Symposium on Digital Design, Advanced Manufacturing and Sustainability, 2008, Illinois Institute of Technology

Program Committee CAD/Graphics 2009, 11th International Conference on Computer-Aided Design and Computer Graphics, Yellow Mountain City, China, 19-21 August 2009.

Panel Organizer with David Rosen from Georgia Tech on “Object Modeling & CAD for Emerging Bio/Micro/Nano Systems” at 2005 American Society of Mechanical Engineers/International Design Engineering Technical Conferences (ASME/IDETC), Long Beach, CA. Panelists include: Delcie Durham from NSF, Kazem Kazerounian from UConn, Ari Requicha from USC, and Wei Sun from Drexel.

Symposium Chair in Computer-Aided Product Development in 2005 ASME/IDETC. Coordinating reviews of 43 conference papers.

Session Chair in Laboratory Automation, IEEE International Conference on Robotics and Automation, Kobe Japan, May 14, 2009.

Session Chair in ASME/IDETC 2005, 2006, 2007, 2008, 2009

External Committee

Chair, Technical Committee, Computer-Aided Product Development, ASME/CIE Division, 2005

Co-Chair, Technical Committee, Computer-Aided Product Development, ASME/CIE Division, 2004

Best-Paper Award Committee, ASME/CIE Division, 2004 ~ 2005

Professional Affiliation

American Society of Mechanical Engineers (ASME)
2003 ~ present

Institute of Electrical and Electronics Engineers (IEEE)
2007 ~ present

Society of Automotive Engineers (SAE)
2007

9 Service to the University

University Committee

Graduate Program Review Committee, reviewing Applied Math graduate program,
2007 ~ 2008.

Department Committee

Advising Coordinator for MS Manufacturing Programs
2004~ 2009

Chair, Manufacturing Faculty Search Committee
2007

MMAE Faculty Search Committee
2005 ~ present

Graduate Studies Committee
2004 ~ present

Ph.D. Qualifying Exam Committee member for Design Area
2004 ~ present

Internet Program (MS degree in Manufacturing) Committee
2005 ~ present