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Education

Peking University	Chemistry (minor in Economics)	B.S. 1998
Northwestern University	Materials Science and Engineering	M.S. 2001
Northwestern University	Industrial Engineering and Management Sciences	M.S. 2002
Northwestern University	Industrial Engineering and Management Sciences	Ph.D. 2004

Appointments

2004 -Present	Assistant Professor – School of Industrial Engineering, Purdue University, West Lafayette, IN.
2000-2004	Teaching and Research Assistant – Department of Industrial Engineering and Management Sciences, Northwestern University, Evanston, IL.
Summer, 2001	Intern – General Electric Corp, Louisville, KY.
1998-2000	Research Assistant – Department of Material Science and Engineering, Northwestern University, Evanston, IL.

Research Interest

- Design and Analysis of Large-scale Computer Simulation Experiments.
- Large-Scale Simulation Optimization via Design of Experiments.
- Applied Statistics.
- Quality Management of Supply Chain
- Quality Control and Reliability Growth.
- Healthcare Engineering.

Awards

2005	Winner of the Pritsker Doctoral Dissertation Award, 3rd place, in 2005 from IIE.
2003	Winner of the QSR (Quality, Statistics, and Reliability Section) Best Student Paper Contest in 2003 INFORMS Annual Meeting

Publications

Accepted/Published

- **Hong Wan** and Bruce E. Ankenman, “Two-Stage Controlled Fractional Factorial Screening for Simulation Experiments,” *Journal of Quality Technology*, 39(2), p126-139.
- Renata Kopach , Po-Ching DeLaurentis, Mark Lawley, Kumar Muthuraman, Leyla Ozsen, Ron Rardin, **Hong Wan** and Deanna Willis, “Effects of Clinical Characteristics on Successful Open Access Scheduling, ” *Health Care Management Science*, v.10, No. 2, p111-124.
- **Hong Wan**, Bruce E. Ankenman and Barry L. Nelson, “Controlled Sequential Bifurcation: A New Factor-Screening Method for Discrete-Event Simulation,” *Operations Research*, Vol. 54 (4) p743-755.

Under Revision

- **Hong Wan**, Bruce E. Ankenman and Barry L. Nelson, “Simulation Factor Screening with Controlled Sequential Bifurcation in the Presence of Interactions, ” under revision for *INFORMS Journal on Computing*.
- Hua Shen and **Hong Wan** “Controlled Sequential Factorial Design for Simulation Factor Screening, ” Under revision for *European Journal of Operational Research*.
- **Hong Wan** and Xiaowei Xu, “Technical Note: Reexamination of All-or-None Inspection Policies in a Supply Chain with Endogenous Product Quality,” under revision for *Naval Research Logistics*.
- Susan M. Sanchez, **Hong Wan** and Thomas W. Lucas, “A Two-Phase Screening Procedure for Simulation Experiments,” under revision for *ACM Transactions on Modeling and Computer Simulation*.
- Santanu Chakraborty, Nagi Gebraeel, Mark Lawley and **Hong Wan**, “Robustness Study of the Residual life Estimation in Degradation Model,” under revision for *IIE Transactions*.

Working Paper

- **Hong Wan**, Hua Shen, Susan M. Sanchez and Thomas W. Lucas, “The Hybrid Approach for Simulation Factor Screening, ” expected submission: January, 2008.
- **Hong Wan**, Michael Y. Zhu and Tonglin Zhang, “ Grouped Screening Design for Main Effects and Two-Factor Interactions,” expected submission: January, 2008.
- Kuo-Hao Chang, Jeff L. Hong and **Hong Wan**, Stochastic Trust Region Gradient-Free Method (STRONG)-A New Response-Surface-Based algorithm in Simulation Optimization,” expected submission: December, 2007.
- Xiaowei Xu and **Hong Wan**, “Bayesian Single Sampling Acceptance Plans in a Supply Chain with Endogeneous Product Quality, ” expected submission: February 2008.

- Jun Xu, Feng Yang and **Hong Wan**, “Factor Screening for Binomial Response, ” expected submission: March, 2008.
- Tonglin Zhang, Michael Y. Zhu and **Hong Wan**, “Nuclear Source Detection with Spatial Models, ” expected submission: January, 2008.

Peer-reviewed Conference Proceedings:

- Kuohao Chang, Jeff L. Hong and **Hong Wan**, “Stochastic Trust Region Gradient-Free Method (STRONG)-A New Response-Surface-Based algorithm in Simulation Optimization,” *Proceeding of the 2007 Winter Simulation Conference*, Dec 9-12, 2007, forthcoming. (finalist for the I-Sim/ACM-SIGSIM Best Student Paper awards at Winter Simulation Conference 2007)
- Jun Xu, Feng Yang and **Hong Wan**, “Controlled Sequential Bifurcation for Software Reliability Study.” *Proceeding of the 2007 Winter Simulation Conference*, Dec 9-12, 2007, forthcoming.
- Hua Shen and **Hong Wan**, “A Hybrid Method for Simulation Factor Screening”, *Proceedings of the 2006 Winter Simulation Conference*, December 3-6, 2006. p382-389.
- Adam Forsyth, Susan Sanchez and **Hong Wan**, “Exploring Edge Organization Models for Network-Centric Operations,” *Proceedings of the 2006 Command and Control Research and Technology Symposium*, June 20-22, 2006.
- Po-Ching DeLaurentis, Renata Kopach, Ronald Rardin, Mark Lawley, Kumar Muthuraman, **Hong Wan**, Leyla Ozsen, and Paul Intrevado, “Open Access Appointment Scheduling—An Experience At A Community Clinic,” *Proceedings of the 2006 IIE Research Conference*, May 20th-24th, 2006.
- Xiuli Qu, Ronald L. Rardin, Lisa Tieman, **Hong Wan**, Julie Ann Stuart Williams, Deanna R. Willis, and Marc B. Rosenman, “A statistical model for the prediction of patient non-attendance in a primary care clinic,” *Proceedings of the 2006 IIE Research Conference*, May 20th-24th, 2006.
- Hua Shen and **Hong Wan**, “Controlled Sequential Factorial Design for Simulation Factor Screening,” *Proceedings of the 2005 Winter Simulation Conference*, December 4-7, 2005, p467-474.
- Susan M. Sanchez, **Hong Wan** and Thomas W. Lucas, “A Two-Phase Screening Procedure for Simulation Experiments,” *Proceedings of the 2005 Winter Simulation Conference*, December 4-7, 2005, p223-230.
- **Hong Wan**, Bruce E. Ankenman and Barry L. Nelson, “Controlled Sequential Bifurcation: a New Factor-Screening Method for Discrete-Event Simulation,” *Proceedings of the 2003 Winter Simulation Conference*, December 7-10, 2003, p565–573.

- Joseph L. Schofer, Barry L. Nelson, **Hong Wan**, Ying Yang, and Ronald Eash. “Estimating Vehicle Resource Requirements for Demand-Responsive Transportations Operations,” *Proceedings of the Metropolitan Conference on Public Transportation Research* (Transport Chicago 2003), June 6, 2003.

Other publications:

- PhD thesis: “Simulation Factor Screening with Controlled Sequential Bifurcation”, Summer, 2004. Thesis Advisors: Bruce E. Ankenman and Barry L. Nelson (Northwestern University)
- Joseph L. Schofer, B.L.Nelson, Ronald Eash, Mark Daskin, Ying Yang, H.Wan, Jingfeng Yan and Laszlo Medgyesy, “*Resource Requirements for Demand-Responsive Transportation Services*”, TCRP REPORT 98, Transportation Research Board of National Academies, December 2003.
http://gulliver.trb.org/publications/tcrp/tcrp_rpt_98.pdf

Selected Conference Presentations and Poster Sessions

- “A Hybrid Method for Simulation Factor Screening,” 2006 INFORMS Annual Meeting, Pittsburg, PA, Nov 5-8, 2006. (invited)
- “Optimal Inspection Policies for Quality Coordination in a Supply Chain,” 2006 INFORMS Annual Meeting, Pittsburg, PA, Nov 5-8, 2006.
- “Efficient Factor Screening Methods for Discrete-event Simulation,” Joint Research Conference 2006 on Statistics in Quality, Industry, and Technology (JRC 2006), Knoxville, TN, June 7-9, 2006.
- “Controlled Sequential Factorial Design for Simulation Factor Screening,” poster session, Design and Analysis of Experiments Conference, Santa Fe, NM, October 11-14, 2005.
- “Controlled Sequential Factorial Design for Simulation Factor Screening,” 2005 INFORMS Annual Meeting, San Francisco, CA, Nov. 13-16, 2005; *2005 Winter Simulation Conference*, Orlando, FL, December 4-7, 2005. (invited)
- “Simulation Factor Screening in the Presence of Interactions,” *2004 INFORMS Annual Meeting*, Denver, CO, Oct 24-27, 2004. (invited)

Funded Research:

- “Efficient Experimental Design Tools for POW-ER Tools,” Naval Postgraduate School, September 28th, 2007-September 30th, 2008. PI: **Hong Wan**.
- “Research for Preparing a Large toward a New Theory of Reliability Design for Significant Reduction of Inspection Cost for Safety-Critical Systems,” Purdue Research Foundation, Purdue University, June 1st 2007-May 31st, 2008. PI: **Hong Wan**. Co-PI: Richard Liu.
- “Efficient Hybrid Factor Screening Procedures for Stochastic Simulation”, Purdue Research Foundation, Purdue University. Summer, 2007. PI: **Hong. Wan**.

- “Data Farming for Test Planning. ”. Naval Post Graduate School, May 1st 2007-Dec 31st, 2007. PI. **Hong Wan.**
- “Exploring Edge Organization Models For Network-Centric Operations”, Naval Post Graduate School, Nov 11th, 2005 – October 30th, 2006. PI: **Hong. Wan.** Subcontractor: Referentia Systems Inc.
- “Simulation Factor Screening: Method Development and Applications”, Purdue Research Foundation (PRF) Research Grant, Purdue University, July 1st, 2005 – June 30th, 2006. PI: **Hong Wan.**
- “Core Program Research with the Indiana University Medical Group on Patient Flow and Scheduling,” Regenstrief Center for Healthcare Engineering, Purdue University. Mar. 2005 - May, 2006. PI: Ronald. Rardin, Co-PIs: Kumar. Muthuraman, Leyla. Ozsen, Julie. Ann. Stuart, and **Hong Wan.**

Teaching Experience:

SEM	Course Title	Enrollment	Course Evaluation*	Instructor Evaluation*
Fall, 2007	IE 530 Quality Control	47	TBD	TBD
Fall 2007	IE330 Probability and Statistics in Engineering II	86	TBD	TBD
Spr, 2007	IE 680 Advanced Simulation Design and Analysis	10	3.8	3.8
Fall, 2006	IE 330 Probability and Statistics in Engineering II	84	4.3	4.8
Fall, 2006	IE 530 Quality Control	38	4.1	4.6
Fall, 2006	Stat 513 Quality Control	19	4.3	4.7
Fall, 2006	IE530Q/Stat 513Q Quality Control (ProEd)	40	4.57	4.71
Spr, 2006	IE533 Industrial Applications of Statistics	48	4.0	4.1
Spr, 2006	IE533Q Industrial Applications of Statistics (ProEd)	26	3.33	3.33
Fall, 2005	IE580 System Simulation	68	4.1	4.2
Spr, 2005	IE533 Industrial Applications of Statistics	63	3.9	3.9
Spr, 2005	IE533Q Industrial Applications of Statistics (ProEd)	50	3.8	4.0
Fall, 2004	IE330 Probability and Statistics in Engineering II	89	4.5	4.3

Course evaluation denotes student responses to “Overall, I would rate this course as” on a scale 1 (very poor) to 5 (excellent). Instructor evaluation denotes responses to “overall, I would rate this instructor as” on the same scale.

ProEd refers to the online course for “Purdue University Engineering Professional Education.” Program. The courses are offered online and students are mostly full-time employees from national-wide companies. See <https://engineering.purdue.edu/ProEd> for more details.

Students advising:

PhD Students:

- Hua, Shen, Ph.D (2006). Currently working at Wachovia Corporation.
PhD thesis: “Efficient Factor Screening in Simulation Experiments.”
- Kuohao, Chang, PhD student, working on Simulation Optimization via Design of Experiments. He is awarded INFORMS Bonder Scholarship in Military Operations Research in 2007.
- Wen-Hsin Feng, Ph.D. student, working on Quality Management in Supply Chain.
- Santanu Chakraborty (co-advising with Prof. Mark Lawley), Ph. D. student, working on Residual Life Estimation in Degradation Model.
- Jonghyun Ryu (co-advising with Prof. Sujin Kims), Ph.D. student, working on Geometric Adaptive CUSUM Control Charts.
- Anne McLaren (senior engineer at Cummins Inc), part-time PhD student, working on multi-stage integrated reliability growth models.

Masters Student (thesis based):

- Abhijith Mukunda, (co-advised with Prof. Kliein Ijeleji), graduated on Jan. 2007, currently working at Capgemini US LLC.
Master thesis: Simulation Modeling of Transportation Logistics of Corn Stover for Ethanol Conversion.

Synergistic Activities

- Referee, “Screening,” eds Dean, A.M. and Lewis, S.M., Springer-Verlag 2006.
- Referee, INFORMS Journal on Computing, IIE Transactions. Technometrics, IEEE Transactions on Engineering Management , European Journal of Operations Research, Simulation Modelling Practice and Theory, and Computer Statistics and Data Analysis.
- Member of INFORMS (CS and QSR) and ASA (American Statistical Association).
- Simulation cluster co-chair, INFORMS Hong Kong International 2006.
- Session Chair of 2004 ,2006 and 2007 INFORMS Annual Meeting.
- Session Chair of 2005, 2006 and 2007 Winter Simulation Conference.
- Purdue College of Engineering Junior Council Committee member (2006-2008)
- Department Committee Service:
 - Fall 2005, Computer committee.
 - Spring 2006: Computer (chair) and Graduate committee.
 - Fall 2006-Fpring 2007: Computer committee (chair).
 - Fall 2007: student recruiting committee.