XUEPING LI, PH.D.

Founding Director, Ideation Laboratory (iLab)
Co-Director, Health Information Technology & Simulation (HITS) Lab
Co-Founder, Academic Technology Innovation LLC.

Associate Professor
Department of Industrial and Systems Engineering
College of Engineering
University of Tennessee, Knoxville
408 East Stadium Hall
Knoxville, TN 37996-0700

Office Phone: (865) 974-7648
Cell Phone: (865) 617-2708
Fax: (865) 974-0588
Web: http://web.utk.edu/~xli27/
http://ilab.engr.utk.edu/
Email: Xueping.Li@utk.edu

PROFESSIONAL PREPARATION

- Doctor of Philosophy in Industrial Engineering, May 2005
  Arizona State University, Tempe, Arizona (2002 ~ 2005)
- Master of Science in Computer Science, July 1999
  Nankai University, China (1996 ~ 1999)
- Bachelor of Science in Automatic Control & Computer Science, July 1996
  Nankai University, China (1992 ~ 1996)

APPOINTMENTS

- Aug. 2012 - Present: Tenured Associate Professor
  Industrial and Systems Engineering Department
  University of Tennessee, Knoxville
- Jan. 2011 – Present: Co-Director, Health Information Technology & Simulation (HITS) Lab
- May 2010 – Present: Director, The Ideation Laboratory (iLab)
- Aug. 2005 – 2012: Tenure-track Assistant Professor
  Industrial and Information Engineering Department
  University of Tennessee, Knoxville
- Jan. 2002 – May 2005: Graduate Research Assistant
  Industrial Engineering Department
  Arizona State University, Tempe, AZ
- May. 2000 – 2001: Project Manager
  LinuxLab Inc., Anshan, China
- Sept. 1999 – 2000: Senior Software Engineer
  Huawei Technologies Co. Ltd., Shenzhen, China

PROFESSIONAL AWARDS

- QUEST "Scholar of the Week", 2010
- Outstanding Research Award, UT I&IE, 2010
- Outstanding Teaching Award, UT I&IE, 2009

- Best Paper Award, Industrial Engineering Research Conference (IERC 2008)
- Best Paper Award, Industrial Engineering Research Conference (IERC 2007)

SELECTED LIST OF PUBLICATIONS

REFEREED JOURNAL PAPERS (*In the paper list, (*) following the first author indicates that the first author is my advisee***)**

1. Shima Mohebbi(*) and Xueping Li (2012) " Designing Intelligent Agents to Support Long-Term Partnership in Two Echelon e-Supply Networks", *Expert Systems With Applications*. (10.1016/j.eswa.2012.07.008).

2. **Xueping Li**, Jiao Wang, Rapinder Sawhney (2012) "Reinforcement Learning for Joint Pricing, Lead-time and Scheduling Decisions in Make-to-Order Systems". *European Journal of Operational Research*. Vol. 221, pp. 99-109. (10.1016/j.ejor.2012.03.020)

3. Wyatt, T.H., **Li, X.,** Indranoi, C. & Bell, M. (2012) "Testing iCare v.1.0: An electronic health record learning tool". *Computers, Informatics, Nursing.* (PMID: 22411413).

4. **Xueping Li**, Rapinder Sawhney, Eric John Arendt and Karuppuchamy Ramasamy (2012) "A Comparative Analysis of Management Accounting Systems' Impact on Lean Implementation". *International Journal of Technology Management,* Vol. 57, No 1/2. *(In press).*

5. **Xueping Li**, Laigang Song and Zhaoxia Zhao (2011) "Quantifying the Impact of Demand Substitution on Bullwhip Effect in a Simple Supply Chain", *Logistics Research*. (DOI: 10.1007/s12159-011-0060-y).

6. **Xueping Li**, Zhaoxia Zhao, Xiaoyan Zhu and Tami Wyatt (2011) "Covering Models and Optimization Techniques for Emergency Response Facility Location and Planning: A Review". *Mathematical Methods of Operations Research (MMOR).* (DOI: 10.1007/s00186-011-0363-4).

7. Rui Xu (*), Huaping Chen and **Xueping Li** (2011) "Makespan Minimization on Single Batch-processing Machine via Ant Colony Optimization". *Computers and Operation Research.* Vol. 39, No. 3, pp 582-593. (DOI 10.1016/j.cor.2011.05.011).

8. Jiao Wang (*), **Xueping Li** and Xiaoyan Zhu (2011) "Intelligent dynamic control of stochastic economic lot scheduling by agent-based reinforcement learning". *International Journal of Production Research (IJPR).* (DOI: 10.1080/00207543.2011.592158).

9. Xiaoyan Zhu, **Xueping Li**, Qingzhu Yang and Yuerong Chen (2011) "Challenges and models in supporting logistics system design for biomass-to-bioenergy industry". *Bioresource Technology*. Vol 5, No. 2, pp 1344-1351.

10. **Xueping Li** and Yuerong Chen, (2010) "Impacts of supply disruptions and customer differentiation in a partial-backordering inventory system", *Simulation*

Modelling Practice and Theory (SIMPAT), Vol 18, pp. 547-557, (DOI: 10.1016/j.simpat.2009.12.010).

11. **Xueping Li**, Dengfeng Yang and Rapinder Sawhney (2010) "Key Establishment for Layered Group-based Wireless Sensor Networks", *International Journal of Ad Hoc and Ubiquitous Computing (IJAHUC)*, Vol 5, No. 3, pp. 150-162.

12. **Xueping Li**, Yuerong Chen and Yang Sun (2010) "Minimizing Job Completion Time Variance for Service Stability on Identical Parallel Machines", *Computers & Industrial Engineering*, (doi:10.1016/j.cie.2010.02.002).

13. Laigang Song (*), **Xueping Li** and A. Garcia-Diaz (2010) "Metamodel Analysis on Multi-Echelon Supply Chain Simulation Experiments", *International Journal of Industrial and Systems Engineering (IJISE)*, Vol 6. No.1, pp.24-44.

14. **Xueping Li**, Jiao Wang and Rapinder Sawhney (2009), "Effective precedence constrained scheduling in a make-to-order environment", *International Journal of Advanced Operations Management (IJAOM)*, Vol. 1, No. 4, pp. 331-350.

15. **Xueping Li**, Godswill Chukwugozie Nsofor and Laigang Song (2009) "A Comparative Analysis of Predictive Data-Mining Techniques", *International Journal of Rapid Manufacturing, Vol. 1, No. 4, pp. 150-172.*

16. Yuerong Chen (*), **Xueping Li**, Rapinder Sawhney and Laigang Song (2009) "Restricted Job Completion Time Variance Minimization on Identical Parallel Machines", *European Journal of Industrial Engineering,* Vol.3, No. 3, pp. 261-276.

17. Dengfeng Yang (*), **Xueping Li**, Rapinder Sawhney and Xiaorui Wang (2009) "Geographic and Energy-Aware Routing in Wireless Sensor Networks", *International Journal of Ad Hoc and Ubiquitous Computing (IJAHUC),*Vol 4, No.2, pp. 61-70.

18. Yuan-Shun Dai, **Xueping Li**, Xukai Zou and Liudong Xing (2009) "Rebound Wall, A Novel Technology against DoS Attacks", *International Journal of Performability Engineering (IJPE)*, Vol. 5, No. 1, pp. 55-70.

19. Rapinder Sawhney, S. Kannan, **Xueping Li** (2009), "Developing a value stream map to evaluate breakdown maintenance operations", *International Journal of Industrial and Systems Engineering (IJISE), Vol 4, No. 3, pp.229-240.*

20. **Xueping Li**, Laigang Song and A. Garcia-Diaz (2008) "Adaptive Web Presence and Evolution through Web Log Analysis*", International Journal of Electronic Customer Relationship Management (IJECRM)*, Vol. 2, No. 4, pp. 195-214.

21. Sasikurmar Naidu, Rapinder Sawhney and **Xueping Li** (2008) "A methodology for evaluation and selection of nanoparticle manufacturing processes based on sustainability metrics", *Environmental Science & Technology*, Vol. 42 No.17, pp. 697-702.

22. Rapinder Sawhney, Pamuk Teparakul, Aruna Bagchi and **Xueping Li** (2007) "EN-LEAN: A Framework to Align Lean and Green Manufacturing in the Metal Cutting Supply Chain", *International Journal of Enterprise Network Management*, Vol. 1, No. 3. pp. 238-260.

23. **Xueping Li**, Yuerong Chen, Y. Sun and Rapinder Sawhney (2007) "On the Minimization of Class-based Completion Time Variance", *International Journal of Operations Research,* Vol. 4, No. 1, pp.1-7.

24. **Xueping Li**, Nong Ye, Tieming Liu, and Yang Sun (2007) "Job Scheduling to Minimize the Weighted Waiting Time Variance of Jobs", *Computers & Industrial Engineering,* Vol. 52, No. 1, pp.41-56.

25. **Xueping Li**, Nong Ye, Xiaoyun Xu and Rapinder Sawhney (2007) "Influencing Factors of Job Waiting Time Variance Minimization", *European Journal of Industrial Engineering,* Vol 1, No. 1.

26. Nong Ye, **Xueping Li**, Toni Farley and Xiaoyun Xu (2007) "Job Scheduling Methods for Reducing Waiting Time Variance", *Computer and Operations Research*, Vol 34, pp. 3069-3083.

27. Nong Ye, Harish Bashettihalli, **Xueping Li**, and Toni Farley (2006) "Batch scheduled admission control for service dependability of computer and network resources", *Information Knowledge System Management,* Vol 5, pp. 221-226.

28. Nong Ye, Esma S. Gel, **Xueping Li**, Toni Farley and Ying-cheng Lai (2005) "Web server QoS models: applying scheduling rules from production planning", *Computers and Operation Research*, Vol. 32, No. 5, pp.1147-1164.

BOOKS

29. **Xueping Li**. Minimizing Waiting Time Variance for Stable Quality of Service on Local Computer and Network Resources. ProQuest/UMI, March, 2006. ISBN: 0542014122.

BOOK CHAPTER

30. **Xueping Li**, "Adaptive Web Presence and Evolution through Web Log Analysis", Chapter 3, *Encyclopedia of Data Warehousing and Mining* (2nd Edition), Editor John Wang, IGI Global, August 2008, DOI: 10.4018/978-1-60566-010-3.ch003, ISBN13: 9781605660103.

REFEREED CONFERENCE PROCEEDINGS

31. **Xueping Li** and Olufemi Omitaomu (2012), "Optimal Solar PV Arrays Integration for Distributed Generation", *Proceedings of the 2012 Industrial & Systems Engineering Research Conference*, G. Lim and J.W. Herrmann, eds., May 19 - May 23, Orlando, FL.

32. Yu Huang (*), **Xueping Li**, Joseph Wilck, and Tom Berg (2012), "Cost Reduction in Healthcare via Lean Six Sigma", *Proceedings of the 2012 Industrial & Systems Engineering Research Conference*, G. Lim and J.W. Herrmann, eds.,May 19 - May 23, Orlando, FL.

33. Cong Guo (*), **Xueping Li** and Yang Sun (2012), "A Multi-level Inventory Control Model for File System Prefetching via Simulation", Proceedings of the 2012 *Industrial & Systems Engineering Research Conference*, G. Lim and J.W. Herrmann, eds.,May 19 - May 23, Orlando, FL.

34. Joseph Wilck, H. Lee Martin, **Xueping Li**, Rupy Sawhney and Gautham Rajappa (2012), "Results from Engineering Entrepreneurship Minor within Industrial Engineering Curriculum", *Proceedings of the 2012 Industrial & Systems Engineering Research Conference*, G. Lim and J.W. Herrmann, eds.,May 19 - May 23, Orlando, FL.

35. Yang Sun and **Xueping Li** (2011), "Optimizing surgery start times for a single operating room via simulation", *Winter Simulation Conference (WSC)* 2011, Dec 11-14, Phoenix, Arizona. (Accepted).

36. Yang Sun, **Xueping Li** and John Fowler (2011), "Minimizing Weighted Completion Time Variance on Homogeneous Servers", *Proceedings of the 2011 Industrial Engineering Research Conference*, May 21 - 25, Reno, NV.

37. Yu Huang (*), **Xueping Li** and Olufemi Omitaomu (2011), "Conceptual Supernetwork Model for Coordination Mechanisms in Humanitarian Relief Chain",*Proceedings of the 2011 Industrial Engineering Research Conference*, May 21 - 25, Reno, NV.

38. Cong Guo (*), **Xueping Li** and Joseph Wilck (2011),"Supply Chain Information Sharing Strategy on Inventory Systems", *Proceedings of the 2011 Industrial Engineering Research Conference*, May 21 - 25, Reno, NV.

39. Zhaoxia Zhao (*), Xiaoyan Zhu and **Xueping Li** (2011), "Analyzing Trade-offs Between Efficiency and Equity on Public Facility Location", *Proceedings of the 2011 Industrial Engineering Research Conference*, May 21 - 25, Reno, NV.

40. Jiao Wang (*), **Xueping Li** and Rupy Sawhney (2009), " Precedence Constrained Scheduling to Minimize Maximum Job Cost on Identical Parallel Machines", *Proceedings of the 2009 Industrial Engineering Research Conference*, May 30 - June 3, Miami, FL, pp. 2067-2072.

41. Dengfeng Yang (*), Jiao Wang, **Xueping Li** and Rapinder Sawhney (2009), "Modeling, Identifying and Mitigating Global Supply Chain Risk Management", *Proceedings of the 2009 Industrial Engineering Research Conference*, May 30 - June 3, Miami, FL, pp. 1339-1344.

42. Yanzhen Li, Gagan Rajpal, Rupy Sawhney and **Xueping Li** (2009), "Enhancing Lean Sustainability via Bayesian Network Techniques", *Proceedings of the 2009 Industrial Engineering Research Conference*, May 30 - June 3, Miami, FL. pp.1171-1178 .

43. Chayawat Indranoi (*), Tami Wyatt and **Xueping Li** (2009), "Development and Usability of iCare: An Electronic Health Record System", *Proceedings of the 2009 Industrial Engineering Research Conference*, May 30 - June 3, Miami, FL. pp. 797-802.

44. Yuerong Chen (*) and **Xueping Li** (2009), "Conflict and Cooperation of Scheduling in a Two-echelon Supply Chain", *Proceedings of the 2009 Industrial Engineering Research Conference*, May 30 - June 3, Miami, FL. pp. 1357-1362.

45. Laigang Song (*), **Xueping Li**, and Alberto Garcia-Diaz (2009) "A New Quantitative Measurement of Bullwhip Effect", *Proceedings of the 2009 Industrial Engineering Research Conference*, May 30 - June 3, Miami, FL. pp. 1333-1338.

46. Yuerong Chen (*) and **Xueping Li** (2009), "The Effect of Customer Segmentation on an Inventory System in the Presence of Supply Disruptions". Winter Simulation Conference (WSC 2009), forthcoming Dec 13-16, Austin, Texas.

47. Dengfeng Yang (*), **Xueping Li** , Gawang Son and Xiaorui Wang (2008) "On-demand Coverage Scheme for Wireless Sensor Networks", *Proceedings of the 2008*

Industrial Engineering Research Conference, J. Fowler and S. Mason, eds. **Best Paper Award**.

48. Laigang Song (*), **Xueping Li** and Alberto Garcia-Diaz (2008) "The Influence of Demand Substitution to a Two Echelon Supply Chain", *Proceedings of the 2008 Industrial Engineering Research Conference*, J. Fowler and S. Mason, eds.

49. Jiao Wang (*), **Xueping Li**, Rapinder Sawhney and Yang Sun (2008) "Makespan Minimization on Identical Parallel Machines with Precedence Constraints", *Proceedings of the 2008 Industrial Engineering Research Conference*, J. Fowler and S. Mason, eds.

50. Ashutosh Hengle, Joseph Amalesh, Rapinder Sawhney and **Xueping Li** (2008) "A Methodology to Manage Complex System Assembly with uncertainty in the Supply Chain", *Proceedings of the 2008 Industrial Engineering Research Conference*, J. Fowler and S. Mason, eds.

51. Arun Balasundaram, Sirisha Saripalli Nukala, Joseph Amalesh, Rapinder Sawhney and **Xueping Li** (2008) "Optimization of Sales Territory in Supply Chain Network", *Proceedings of the 2008 Industrial Engineering Research Conference*, J. Fowler and S. Mason, eds.

52. Sirisha Saripalli Nukala (*), Naveed Ahmed, Rapinder Sawhney and **Xueping Li** (2008) "Student-Advisor Allocation in Doctoral Programs - A Markov Chain Application", *Proceedings of the 2008 Industrial Engineering Research Conference*, J. Fowler and S. Mason, eds

53. **Xueping Li** and Q.S. Song (2007) "Markov Chain Approximation Methods on Generalized HJB Equation", *IEEE Conference on Decision and Control.*

54. Yuerong. Chen (*), **Xueping Li** and Somasundaram Kumanan (2007) "Job Completion Time Variance Minimization on Identical Parallel Machines", *Proceedings of the 2007 Industrial Engineering Research Conference*, G. Bayraksan, W. Lin, Y. Son, and R. Wysk, eds. **Best Paper Award**.

55. **Xueping Li**, M. Louidor, Laigang Song and Yuerong Chen (2007) "On the Minimization of Completion Time Variance of On-line Jobs", *Proceedings of the 2007 Industrial Engineering Research Conference*, G. Bayraksan, W. Lin, Y. Son, and R. Wysk, eds.

56. Laigang Song (*), **Xueping Li** and A. Garcia-Diaz (2007) "Weighted Feature Vector Selection in Web Document Clustering Analysis", *Proceedings of the 2007 Industrial Engineering Research Conference*, G. Bayraksan, W. Lin, Y. Son, and R. Wysk, eds.

57. Dengfeng Yang (*), **Xueping Li** and Rapinder Sawhney (2007) "ADA-QUEST: An Adaptive Query-Storage Scheme for Large Scale Sensor Network", *Proceedings of the 2007 Industrial Engineering Research Conference*, G. Bayraksan, W. Lin, Y. Son, and R. Wysk, eds.

58. A. Naveed, Rapinder Sawhney and **Xueping Li** (2007) "A Model to Manage Emergent Manufacturing", *Proceedings of the 2007 Industrial Engineering Research Conference*, G. Bayraksan, W. Lin, Y. Son, and R. Wysk, eds.

59. **Xueping Li**. and Dengfeng Yang (2006) "A Quantitative Survivability Evaluation Model for Wireless Sensor Networks", *IEEE International Conference on Networking, Sensing and Control*, April 23-25, Ft. Lauderdale, FL.

PRESENTATIONS AND CONFERENCE ABSTRACTS

60. **Xueping Li** and Olufemi Omitaomu (2012), "Optimal Solar PV Arrays Integration for Distributed Generation", ISERC 2012, Orlando, FL, May 19-23, 2012.

61. Cong Guo, **Xueping Li** and Yang Sun (2012), "A Multi-level Inventory Control Model for File System Prefetching via Simulation". ISERC 2012, Orlando, FL, May 19-23, 2012. Invited Session Chair.

62. Gautham Rajappa, Joseph Wilck and Xueping Li (2012), "Ant Colony Optimization For Split Delivery Vehicle Routing Problem", ISERC 2012, Orlando, FL, May 19-23, 2012. Invited Session Chair.

63. Yu Huang, **Xueping Li**, Joseph Wilck, and Tom Berg (2012), "Cost Reduction in Healthcare via Lean Six Sigma", ISERC 2012, Orlando, FL, May 19-23, 2012.

64. Zhaoxia Zhao, **Xueping Li** and Xiaoyan Zhu (2012), "Schedule Elective Surgeries to Operating Rooms Using Constraint Programming", ISERC 2012, Orlando, FL, May 19-23, 2012. Invited Session Chair.

65. Joseph Wilck, Gautham Rajappa and **Xueping Li** (2012), "Sustainable Vehicle Routing with Multiple Objectives", ISERC 2012, Orlando, FL, May 19-23, 2012.Invited Session Chair.

66. Joseph Wilck, H. Lee Martin, **Xueping Li**, Rupy Sawhney and Gautham Rajappa (2012), "Results from Engineering Entrepreneurship Minor within Industrial Engineering Curriculum", ISERC 2012, Orlando, FL, May 19-23, 2012.

67. Yu Huang, **Xueping Li** and Olufemi Omitaomu (2011), "Conceptual Supernetwork Model for Coordination Mechanisms in Humanitarian Relief Chain", IERC 2011, Reno, NV, May 21- 25, 2011. **Session Chair**.

68. Cong Guo, **Xueping Li** and Joseph Wilck (2011),"Supply Chain Information Sharing Strategy on Inventory Systems", IERC 2011, Reno, NV, May 21- 25, 2011. **Session Chair.**

69. Isaac Atuahene, Rupy Sawhney, **Xueping Li** and Charles Aikens (2011), "An Optimal-Model of Entry, Ticketing and Seating of Neyland Stadium", IERC 2011, Reno, NV, May 21- 25, 2011.

70. Zhaoxia Zhao, Xiaoyan Zhu and **Xueping Li** (2011), "Analyzing Trade-offs Between Efficiency and Equity on Public Facility Location", IERC 2011, Reno, NV, May 21- 25, 2011. **Invited Session Chair.**

71. Yang Sun, **Xueping Li** and John Fowler (2011), "Minimizing Weighted Completion Time Variance on Homogeneous Servers", IERC 2011, Reno, NV, May 21- 25, 2011. **Invited Session Chair**.

72. Gautham Rajappa, Joseph Wilck, Michael Vanderlan and **Xueping Li** (2011), "Variable Fuel Prices Within the Stochastic SDVRP", IERC 2011, Reno, NV, May 21- 25, 2011.

73. **Xueping Li,** Zhe Zhang, et al. (2010) "Supply Chain Management Models and Heuristics for Data Cache Management", INFORMS 2010, Austin, TX. **Invited Session Chair.**

74. Joe Wilck, **Xueping Li (2010) "** User Strategies for Super Computer Scheduling", INFORMS 2010, Austin, TX. **Invited Session Chair.**

75. **Xueping Li** (2010) "Simulation and Optimization of Supply Chain Models for Supercomputing", INFORMS 2010, Austin, TX. **Session Chair.**

76. **Xueping Li** (2010) "Interactive Narrative Asthma Program: Usability Testing of Okay with Asthma v.2.0", INFORMS 2010, Austin, TX. (Interactive Poster Session)

77. **Xueping Li** (2009) "NIH Challenge Grant", Colloquia Series in the College of Nursing, University of Tennessee.

78. **Xueping Li** and Dengfeng Yang (2009), "QoS Algorithm Design and Evaluation Framework in Wireless Sensor Networks", May 30 - June 3, Miami, FL.

79. Gagan Rajpal, Ashutosh Hengle, Rupy Sawhney and **Xueping Li** (2009), "Methodology to Assess and Manage Material and Machine Tool Risks", May 30 - June 3, Miami, FL.

80. Sasikumar Naidu, Prasanna Rao, Rupy Sawhney and **Xueping Li** (2009), "Network Design of a Generic Recovery Model with Extensions", May 30 - June 3, Miami, FL.

81. Gagan Rajpal, Rapinder Sawhney and **Xueping Li** (2008) "Role of Reliability in Enhancing Lean", IERC'08, May 17-21, Vancouver, BC, Canada.

82. Ashutosh Hengle, Joseph Amalesh, Rapinder Sawhney and **Xueping Li** (2008) "A Methodology to Manage Complex System Assembly with uncertainty in the Supply Chain", IERC'08, May 17-21, Vancouver, BC, Canada.

83. Sirisha Saripalli Nukala, Joseph Amales, Rapinder Sawhney and **Xueping Li** (2008) "Student-Advisor Allocation in Doctoral Programs - A Markov Chain Application", IERC'08, May 17-21, Vancouver, BC, Canada.

84. Sirisha Saripalli Nukala, Rapinder Sawhney, **Xueping Li** and Naveed Ahmed (2008) "Student-Advisor Allocation in Doctoral Programs - A Markov Chain Application", OR Posters, IERC'08, May 17-21, Vancouver, BC, Canada.

85. **Xueping Li** and Q.S. Song (2007) "Markov Chain Approximation Methods on Generalized HJB Equation", *IEEE Conference on Decision and Control,* New Orleans, LA, 2007.

86. Dengfeng Yang, **Xueping Li** and Rapinder Sawhney (2007) "ADA-QUEST: An Adaptive Query-Storage Scheme for Large Scale Sensor Network", IERC'07.

87. Laigang Song, **Xueping Li** and Alberto Garcia-Diaz (2007) "Weighted Feature Vector Selection in Web Document Clustering Analysis", IERC'07.

88. **Xueping Li**, M. Louidor and Yuerong Chen (2007) "On the Minimization of Completion Time Variance of On-line Jobs", IERC'07.

89. A. Naveed, Rapinder Sawhney and **Xueping Li** (2007) "A Model to Manage Emergent Manufacturing ", IERC'07.

90. Yuerong Chen, **Xueping Li** and Somasundaram Kumanan (2007) "Job Completion Time Variance Minimization on Identical Parallel Machines", IERC'07.

91. **Xueping Li**, Laigang Song (2006) "Adaptive Web Presence and Evolution Through Web Usage Mining", Invited Session, INFORMS Data Mining Cluster.

92. **Xueping Li**, Yuerong Chen, and Yang Sun (2006) "Minimizing Class-Based Completion Time Variance in Single Machine Systems", Invited Session, INFORMS Scheduling Cluster.

93. Inho Kang, M. K. Jeong, **Xueping Li**, and Dongjoon Kong (2006) "Adaptive Thresholding Approach for the Anomaly Intrusion Detection," 2006 IIE Annual Conference, May 20 - 24, Orlando, Florida.

94. **Xueping Li** (2005) "Web Mining and Information Assurance", Colloquia Series in Statistics, Operations, and Management Science, University of Tennessee.

RESEARCH REPORTS

95. Rapinder Sawhney, **Xueping Li** and Joe Wilck (2012), "Innovation and Entrepreneurship in Product Development and Commercialization", NSF IIP # 0438641.

96. Rapinder Sawhney, **Xueping Li** and Joe Wilck (2011), "Innovation and Entrepreneurship in Product Development and Commercialization", NSF IIP # 0438641.

97. **Xueping Li** (2010), "Usability of iCare: An Academic Electronic Health Record Clinical Simulation Tool", NSF IIP #1013586.

98. **Xueping Li** and Tami Wyatt (2010), "Usability testing Okay with Asthma V.2.0: An interactive narrative asthma program", NIH #NR011352.

99. Rapinder Sawhney, **Xueping Li** and Joe Wilck (2010), "Innovation and Entrepreneurship in Product Development and Commercialization", NSF IIP # 0438641.

GRANTS AND CONTRACTS

- **Recent/Current Projects:**
  o "Bringing Interprofessional Teams Together Through Technology to Create Solutions for Healthcare", National Institutes of Health, ($1,080,320, PI Team: Pierce and Li), 2012-2015.
  o "Advanced Modeling and Simulation for System Optimization", Funded by **B&W Y-12**, (#PD121492, PI, Team (Li, Wilck, Sawhney)), $304,847, 2011-2013.
  o "mLearning for Engineering Education – A Pilot Study", OIT-UTK (PI Team: Li/Aydeniz), 2012.
  o "Health Information Technology & Simulation Lab" ORU, SARIF $40,000, FY13.
  o "Health Information Technology & Simulation Lab" ORU, $38,838, FY12.

- o "Health Information Technology & Simulation Lab" ORU, SARIF $18,000, FY12.
- o "Demand Driven Forecasting and Supply Chain Intelligence for QCN". $15,000, PI, 2012.
- o "iLab: The Ideation Laboratory", Funded by **UT COE**, $220,000, 2011-2012.
- o "Usability of iCare: An Academic Electronic Health Record Clinical Simulation Tool.", Funded by **National Science Foundation (NSF)**, $150,000, (*Grant # IIP- 1013586*), PI, 2010.
- o "Usability testing Okay with Asthma V.2.0: An interactive narrative asthma program", Funded by **National Institutes of Health (NIH)**, $145,904, (Grant # 1R03 NR011352-01. MPI: Li & Wyatt), 2009-2012.
- o "Innovation and Entrepreneurship in Product Development and Commercialization", Funded by **National Science Foundation (NSF)**, $600,000, (*Grant # IIP-0438641*, Co-PI, Team (Sawhney, Li, Wilck), No-cost extension $350K), 2009-2012.
- o "Construction Industry Information and Construction Inspections - OSHA", Funded by **Department of Labor (DOL)**, $239,851, co-PI, 2009-2011.

- ▪ **Completed Projects:**
  - o Geo-Batching Optimizer Program (GBOP) for **Nissan North America**, $133,058 (Original PI: Ding), 2010.
    - - Designed for Nissan various plants to synchronize production scheduling and production distribution
    - - Projected cost savings: $1.2M annually
    - - Techniques/tools: ILOG/OPL, C#.Net
  - o UT **SARIF** award for iCare Development ($3,600, Ph.D. student Elaine Zhao), 2010.
  - o "ALPR: Automatic License Plate Reading", **INEX/ZAMIR** Inc., $4,320, PI, 2009.
  - o "Parts Substitution Management to Reduce Inventory and Improve SLA", **Quanta Computers** Inc., $9,989.00, PI, 2008-2009.
  - o "Transforming Data into Information via Statistical Analysis and Data Mining", **Halliburton**, $30,000, co-PI, 2009.
  - o "Designing a Decision System to Manage Moves at a National Laboratory", **UT-Battelle**, LLC-ORNL, $10,000, co-PI, 2009-2010.
  - o "Transforming Data into Information via Statistical Analysis and Data Mining", $50,000, 2008, **Halliburton**, co-PI.
  - o "Web-Based Training Modules for Undergraduate Students in Information Engineering", Teaching with Technology Grant-**UTK**，$15,000, 2006, PI.
  - o "Halliburton Nisku Manufacturing: Shorten The Total Lead Time of Production Time of A 9600 Geo Pilot Tool", **Halliburton**, $10,000, 2007, Co-PI.

- o "Nuclear Nonproliferation Program Functional Analysis", **UT-Battelle - Oak Ridge National Laboratory**, $18,000, 2007, Co-PI.
- o "Imagepoint Process Standardization", **Imagepoint**, $10,512, 2007, Co-PI.
- o "A Lean Assessment Methodology for Johnson & Johnson**", Johnson & Johnson**, $23,124, 2007, Co-PI.
- o UT **SARIF** award for iCare Development ($3,600, Ph.D. student Indranoi), 2008.
- o UT 2006 Teaching with Technology Grant (**OIT-UTK**), $15,000. "Web-Based Training Modules for Undergraduate Students in Information Engineering", **UT**, 2006-2007.
- o "A Complex Adaptive System Approach to QoS Assurance and Stateful Resource Management for Dependable Information Infrastructure", Air Force Office of Scientific Research (**AFOSR**), Research Assistant, 2002-2005.
- o "Cyber Signal/Noise Characteristics and Sensor Models for Early Cyber Indications and Warning", The Advanced Research and Development Activities (**ARDA**) of the US Intelligent Community and the Air Force Research Laboratory (**AFRL**), Research Assistant, 2004-2005.

SYNERGISTIC ACTIVITIES

- Invited Session Chair, *Supply Chain and Logistics Applications* - I, 2011 Industrial Engineering Research Conference, May 21 - 25, Reno, NV.
- Invited Session Chair, *Supply Chain and Logistics Applications* - II, 2011 Industrial Engineering Research Conference, May 21 - 25, Reno, NV.
- Invited Session Chair (INFORMS'10, Austin) "*Optimization and Scheduling for Supercomputers*" in "*Optimization/Computational Optimization and Software*" Cluster.
- Session Chair: "*Simulation and Optimization II*", INFORMS'10, Austin.
- Invited panelist of research grant proposals
    - o National Institutes of Health (NIH), 2009
    - o National Science Foundation (NSF), 2008
    - o NSF CMMI 2008 Research and Innovation Conference, Knoxville, TN, 2007.
- Editorial board member of
    - o IETECH (International Engineering and Technology)
        - Journal of Advance Computations
    - o International Journal of Data Mining, Modeling and Management (IJDMMM)
    - o International Journal of Operations Research and Information Systems (IJORIS)
- Reviewer for journals of
    - o Operations Research
    - o IIE Transactions
    - o IEEE Transactions on Reliability
    - o IEEE Transaction on Systems, Man and Cybernetics, Part A

- o IEEE Transaction on Systems, Man and Cybernetics, Part C
- o Computers and Operations Research
- o Computers and Industrial Engineering
- o INFORMS Journal of Computing
- o Data & Knowledge Engineering
- o Advances in Engineering Software
- o International Journal of Advanced Operations Management
- o Journal of Computer Science and Technology
- o International Journal of Operations Research and Information Systems
- o International Journal of Data Mining, Modeling and Management
- Co-founder, iCare Academic LLC. (http://iCareAcademic.com)
- Innovating in Teaching with Technology (TWT), University of Tennessee 2006; Developing online modules for Information Engineering education.
- **Who's Who in Engineering Higher Education**
- **Who's Who in America**
- Member of **IIE**, **IEEE** and **INFORMS**.
- US Patent: "The YELF Spiral: A Task Scheduling Technique to Reduce the Variance of Waiting Time for Performance Stability and Predictability". ASU Case No. M3-069.

TEACHING

- Courses Taught

    - o MS/IE514: ADVANCED INFORMATION ANALYSIS AND DESIGN. SPRING 2011.
    - o IE406: SIMULATION, SPRING 2011
    - o MS/IE526: ADVANCED APPLICATIONS OF SYSTEMS MODELING AND SIMULATION, FALL 2010
    - o MS/IE514: ADVANCED INFORMATION ANALYSIS AND DESIGN. SPRING 2010.
    - o IE406: SIMULATION, SPRING 2010
    - o MS/IE514: ADVANCED INFORMATION ANALYSIS AND DESIGN. SPRING 2009.
    - o IE406: SIMULATION, SPRING 2009
    - o IE526: ADVANCE SYSTEMS MODELING AND SIMULATION, FALL 2008.
    - o IE405: ENGINEERING ECONOMICS ANALYSIS. SUMMER 2008.
    - o IE514: ADVANCED INFORMATION ANALYSIS AND DESIGN. SPRING 2008.
    - o IE406: SIMULATION, SPRING 2008.

- o IE526: ADVANCE SYSTEMS MODELING AND SIMULATION, FALL 2007.
- o IE340: PROCESS IMPROVEMENT THROUGH PLANNED EXPERIMENTATION, SPRING 2007.
- o IE406: SIMULATION, SPRING 2007.
- o IE421: INFORMATION SYSTEM ANALYSIS AND DESIGN, FALL 2006.
- o IE406: SIMULATION, FALL 2006.
- o IE422: SENIOR PROBLEMS ANALYSIS, SUMMER 2006.
- o IE495: SPECIAL TOPICS IN INDUSTRIAL ENGINEERING, SUMMER 2006.
- o IE440: PROCESS IMPROVEMENT THROUGH PLANNED EXPERIMENTATION, SPRING 2006.
- o IE421: INFORMATION SYSTEMS ANALYSIS AND DESIGN, FALL 2005.

The average score of student evaluation of my courses is about 4 of 5.

- **I&IE Outstanding Teaching Award**, 2009
- eTeaching Distance Education (DE) Certified
- Course Management Systems (CMS) Certified
- Designed, developed and deployed *Virtualization Servers* for a variety of courses
  - o Hyper-V Virtual Serves hosting software including **Arena, Minitab, Matlab, Lingo, ILOG/OPL/CPLEX, GAMS, JMP, Dreamweaver**, and so on.
- Overall average teaching evaluation is about 4~4.6 out of 5. (TN101 Online)

SOFTWARE EXPERIENCE

- *Database Management Systems*: Oracle, MS SQL Server, MS Access, SQL, ERD
- *Computer Languages*: Java, C#, VB.Net, Java, C, Pascal, HTML/XHTML, JSP, ASP.NET
- *Optimization Packages*: ILOG/OPL/CPLEX, GAMS, Lingo/Lindo
- *Statistical software packages*: Statistica, Minitab, JMP, Design Expert
- *Modeling and Simulation*: Arena, AnyLogic.
- *Server platforms:* Windows 2008/2003 Server R2 (Hyper-V, RDS), Apache Web Server
- *Graphics:* Adobe Master Collection (Fireworks, Photoshop, Illustrator, …)
- *Gaming:* Unity3D

DISSERTATION AND THESIS ADVISOR

- **Advisees:**
  - o Ph.D. Graduates and organizational affiliations

- Jiao "Jojo" Wang, Ph.D., "*Revenue Management for Make-to-Order and Make-to-Stock Systems*", **UT Athletics Department Award recipient.** Employer: Bank of America.

- Dengfeng Yang, Ph.D., "*QoS Provision for Wireless Sensor Networks", 2009*. Employer: Infor, after PostDoc at Northwestern Univ. **Best Paper Award recipient of IIE Conference IERC'08.**

- Yuerong Chen, Ph.D., "S*cheduling for Service Stability and Supply Chain Coordination*", 2009. Employer: PostDoc, University of Akron. **Best Paper Award recipient of IIE Conference IERC'07.**

- Laigang Song, Ph.D., "*Supply Chain Management with Demand Substitution", 2009. (Co-advisor: Dr. Alberto Garcia).* Employer: MPLNET after INEX/ZAMIR. **Recipient of Outstanding Graduate Student Award, I&IE 2009.**

- Nukala, Sirisha Saripalli, Ph.D., "Demand Estimation at Manufacturer-Retailer Duo: A Macro-Micro Approach", 2008. *(Co-advisor: Dr. Rapinder Sawhney).* Employer: ORNL.

o M.S. Graduates and organizational affiliations

- Godswill Chukwugozie Nsfor, M.S., "Comparative Analysis of Predictive Data-Mining Techniques", 2006. Employer: Jtekt.com

o Current Graduate students

- Shima Mohebbi: University of Tennessee, Ph.D. student

- Elaine Zhaoxia Zhao: University of Tennessee, **SARIF Award recipient 2010.**

- Chayawat Indranoi: University of Tennessee, **SARIF Award recipient 2008.**

- Alison Yu Huang: University of Tennessee, Ph.D. student

- Simon Cong Guo: University of Tennessee, Ph.D. student

o Research Associates:

- Rui Xu, University of Science and Technology of China. (2009-2010).

- Eui Soon Kim, 2007~2008. Korea Institute for Defense Analyses.

- **Dissertation/Thesis Committee member of**
  o Ph.D. Students *(Partial list)*

  - Sasikumar Naidu, "Towards Sustainable Development of Nanomanufacturing", 2011.

  - Jian Sun, "Robust Multichannel Functional-Data-Analysis Methods for Data Recovery in Complex Systems", 2011.

- Chia-Han Yang, "Reliability Analysis of Nanocrystal Embedded High-K Nonvolatile Memories", 2011.
- Karima Tayab, "The Impact of Change on System of Systems Performance with an Application to Multihospital Systems", 2011.
- Bruce Holt, "Predicting the Sustainability of a Learning Organization". 2011.
- Qingzhu (Drew) Yao, "Birnbaum Importance Patterns in Linear Consecutive k-out-of-n Systems and Birnbaum Importance-based Heuristics for the Reliability Assignment Problem". 2011.
- Jamie Coble, "Merging Data Sources to Predict Remaining Useful Life – An Automated Method to Identify Prognostic Parameters", 2010.
- Moraes Franscisco Oliveira-Neto, "Matching Vehicle License Plate Numbers Using License Plate Recognition and Text Mining Techniques", 2010. (CEE)
- Ming Chen, "Adaptive Performance and Power Management in Distributed Computing Systems", 2010. (EECS)
- Huijuan Li, "An Adaptive Voltage Control Method with Distributed Energy Resources", 2010. (EECS)
- Stainback IV, Joseph Ruric (Joe), "Improving Race Team Performance through Team-Driver Communication Efficacy: A New Lean Model to Eliminate Waste", 2010.
- Rolando-Jose Acosta-Amado, "A Multi-Commodity Network Flow Approach for Sequencing Refined Products in Pipeline Systems".
- Cameron Coates, "System Effectiveness Model Formulation With Application To Nuclear Safeguards Systems", 2009.
- Yanzhen Li, "Developing a Risk-Informed Model to Enhance Process Improvement", 2008.
- Robert Shegiharu Keyser, "Reliability in Lean Systems", 2008.
- Inho Kang, "Differentiated Intrusion Detection and SVDD-based Feature Selection for Anomaly Detection", 2007.
  - o M.S. Students
    - Amoldeep Singh Jaggi, "An experimental approach for RFID ready receiving and shipping", May 2011.
    - Seyed A. Niknam. "Diagnosis and Prognostic Modeling of High-speed Milling Cutters", 2011.

- Michael Vanderlan, "Analyzing Supercomputer Utilization Under Queuing with a Priority Formula and a Strict Backfill Policy ", 2011.

- Venkatewara, Prasanna Rao, "Increasing Accuracy of Simulation Modeling via a Dynamic Modeling", 2010.

- Clayton Jerrett Capizzi, "An Industrial Engineering Approach to Government Contract Closeouts", 2009.

- Karthik Subburaman, "A Modified FMEA Approach to Enhance the Reliability of Lean Systems", 2009.

- Christian Sonntag, "Sustainability of Lean via Reliability: A Managerial Guideline", 2008.

- Ashutosh Hengle, "A Methodology to Assess and Manage Material and Machine Tool Risks for a Manufacturer, 2008.

- Joseph Virgil Amalesh, "Enterprise Level Maintenance Strategy Selection: An Empirical Model", 2008.

- Naveed Ahmed, "A Demand Forecasting Model for Emergent Manufacturing", 2007.

- Zeid El-Akkad, "The Impact of Organizational Attributes on Project Performance as Measured by On-Time Delivery and Budget", 2007.

- Soundararajan Kannan, "Developing a Maintenance Based Value Stream Map", 2006.

o Invited International dissertation/thesis evaluator

- National Institute of Technology, Tiruchirappalli, India (http://www.nitt.edu).

- Anna University, ChenNai, India (http://www.annauniv.edu).