

DR. GARY MICHAEL GAUKLER

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RESEARCH INTERESTS

Applications of RFID in operations management
Supply chain visibility and inventory control policies
Homeland security and supply chain vulnerabilities
Health care and pharmaceutical supply chain management

TEACHING INTERESTS

Supply chain management
Production and operations management
Logistics
Applied probability

EDUCATION

Sep 2005	Stanford University, Stanford, California Ph.D. in Management Science and Engineering Concentration: Production and Operations Management Principal Advisor: Warren H. Hausman; Readers: Feryal Erhun, Ozalp Ozer Thesis: "RFID in Supply Chain Management". This dissertation was ranked top-selling operations management dissertation by ProQuest in 2007.
April 2003	Stanford University, Stanford, California Master of Science in Management Science and Engineering Concentration: Operations Research; GPA: 3.9/4.0
May 2000	Georgia Institute of Technology, Atlanta, Georgia Master of Science in Industrial and Systems Engineering Concentration: Manufacturing and Logistics Systems; GPA: 3.9/4.0
Sep 1998	Universität Karlsruhe, Karlsruhe, Germany Vordiplom (B.Sc.) in Engineering and Management Science

PAPERS

Gary M. Gaukler, Warren H. Hausman: *RFID in Assembly Operations: Process and Quality Savings*. IIE Transactions, forthcoming, 2008.

Gary M. Gaukler, Ozalp Ozer, Warren H. Hausman: *Order Progress Information: Improved Dynamic Emergency Ordering Policies*. Production and Operations Management (POM), forthcoming, 2008.

Gary M. Gaukler, Ralf W. Seifert, Warren H. Hausman: *Item-level RFID in the Retail Supply Chain*. Production and Operations Management (POM), Vol. 16, Issue 1, 2007.

Gary M. Gaukler, Ralf W. Seifert: *Applications of RFID in Supply Chains*. In "Trends in Supply Chain Design and Management: Technologies and Methodologies", Chapter 2, ed. Hosang Jung, Frank Chen, Bongju Jeong, Springer London Ltd., March 2007.

Gary M. Gaukler: *The Impact of Item-level RFID on Product Availability and Demand Forecasting in Retail*. Under review by POM, September 2007.

Vijaya Chebolu-Subramanian, Gary M. Gaukler: *RFID-enabled Traceability of Contaminated Products*. Working paper, March 2007.

Gary M. Gaukler, GakGyu Kim: *Spatial Location of Objects Using RFID*. Working paper, January 2007.

Gary M. Gaukler: *Lateral Transshipment Options in a 2-stage Supply Chain*. Working paper, August 2006.

Gary M. Gaukler: *RFID and Product Progress Information: Improved Dynamic Emergency Ordering Policies*. Conference Proceedings, MSOM Conference, Chicago, IL, June 27-28, 2005.

Gary M. Gaukler: *RFID in the Retail Supply Chain: Benefits, Roll-Out Strategies, and Cost Sharing Agreements*. The Supply Chain Connection, Stanford Global Supply Chain Management Forum, Vol. 10, Issue 2, Spring 2004.

PRESENTATIONS

The Impact of Item-level RFID on Product Availability in Retail.
Invited Presentation, INFORMS Annual Conference, Seattle, WA, November 5, 2007.

Locating Hospital Equipment Using RFID.
Invited Presentation, INFORMS Conference, Puerto Rico, USA, July 10, 2007.

Process vs. Quality Cost Savings in Assembly Operations.
Invited Presentation, IIE Annual Conference, Nashville, TN, May 20, 2007.

Lateral Transshipment Options in a 2-stage Supply Chain.
Invited Presentation, INFORMS Annual Conference, Pittsburgh, PA, November 5-8, 2006.

RFID in Assembly Operations.
Invited Presentation, IIE Annual Conference, Orlando, FL, May 22-24, 2006.

RFID in Operations Management: Current Research Directions.
Invited Presentation, Distinguished Speaker Series at University of Houston, Houston, TX, April 2006.

RFID and Quality Checking in a Complex Assembly Process.
Invited Presentation, INFORMS Conference, San Francisco, CA, November 13-16, 2005.

Order Progress Information: Better Inventory Control Using Emergency Ordering.
Invited Presentation, INFORMS Conference, San Francisco, CA, November 13-16, 2005.

RFID and Product Progress Information: Improved Dynamic Emergency Ordering Policies.
Invited Presentation, MSOM Conference, Chicago, IL, June 27-28, 2005.

RFID in Completeness Checking.

Invited Presentation, Volkswagen Electronics Research Lab and Volkswagen Corporate (Germany), Palo Alto, CA, May 5, 2005.

RFID in Configuration and Assembly.

Invited Presentation, HP Labs, Palo Alto, CA, April, 2005.

Market Dynamics in a Retail Supply Chain Under RFID.

Invited Presentation, INFORMS Annual Conference, Denver, CO, October 24-27, 2004.

The State of RFID Modeling and Research in Retail, Inventory Management, and Production.

Invited Presentations, Sun Microsystems, Tibco, Inc., SAP Labs, Volkswagen of America, and Omnicell, March – October, 2004.

Item-level RFID: Hype or Real Benefits? Analyzing the Retail Supply Chain Case.

Poster Presentation, Stanford MS&E Industry Affiliates Meeting, November 12, 2003.

Item-level RFID within the Retail Supply Chain.

Invited Presentation, INFORMS Annual Conference, Atlanta, GA, October 19-23, 2003.

Modeling the Impact of Item-level RFID: The Retail Supply Chain Case.

Invited Presentation, HP Labs, Palo Alto, CA, October 7, 2003.

What You Should Know About RFID: Real-world Applications.

Panelist, SensorsExpo Conference, Anaheim, CA, September 22-25, 2003.

RESEARCH FUNDING

- | | |
|-------------|---|
| 2007 – 2012 | <i>ARI-LA: A Framework for Developing Novel Detection Systems Focused on Interdicting Shielded HEU</i>
Co-PI and Systems Engineering Team Lead
NSF/DNDO, \$7.5 million (ISEN portion \$1 million; \$500,000 to G.M. Gaukler). |
| 2005 | <i>Development of Simulation Support Methods for Training and Exercise Development Tools to Address Animal Biosecurity</i>
Co-PI
TEES, \$66,000 (ISEN portion \$25,000; \$12,500 to G.M. Gaukler). |

TEACHING EXPERIENCE

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| Since Sep 2005 | Texas A&M University, College Station, Texas
Assistant Professor, Department of Industrial and Systems Engineering
Courses taught: <ul style="list-style-type: none">• INEN 615 Production and Inventory Control (Graduate).
Teaching evaluation: 4.5/5.0.• INEN 601 Facility Location and Logistics (Graduate).
Teaching evaluation: 4.6/5.0.• INEN 689 Competing on Information Flows (Graduate).
Teaching evaluation: 4.8/5.0.• INEN 315 Production Systems Planning (Undergraduate).
Teaching evaluation: 4.6/5.0.• INEN 220 Introduction to Production and Manufacturing Systems (Undergraduate). |
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- Oct 01 - Mar 03 **Stanford University, Stanford, California**
Teaching Assistant, Department of Management Science and Engineering
 Analysis of Production and Operations Systems; Inventory Control and Production Systems; Manufacturing Strategy; Engineering Economy.
- Oct 97 - Jul 99 **Universität Karlsruhe, Karlsruhe, Germany**
Teaching Assistant, Inst. Applied Comp. Sci. and Formal Description Methods
 Programming; Algorithm Theory; Logic; Automata Theory.

RESEARCH EXPERIENCE

- Since May 2006 **Texas A&M University, College Station, Texas**
Director, RFID and Supply Chain Systems Lab, Department of Industrial and Systems Engineering
 Research focuses on mathematically modeling applications of RFID in supply chains, operations management, health care, and homeland security.
- Since Sep 2005 **Texas A&M University, College Station, Texas**
Assistant Professor, Department of Industrial and Systems Engineering
- Jul 03 – Aug 05 **Stanford University, Stanford, California**
Research Assistant
 Research on supply chain management and RFID. Research presentations in industry and academia, experts panel service, and conference attendance. Close collaboration and consulting work with industry partners Hewlett-Packard and Volkswagen of America.
- Apr 03 - Jun 03 **IMD Institute for Management Development, Lausanne, Switzerland**
Research Associate
 Research on RFID in retail operations.
- May 98 - Jul 99 **Universität Karlsruhe, Karlsruhe, Germany**
Research Assistant, Inst. Applied Comp. Sci. and Formal Description Methods
 Research on evolutionary algorithms.

CONSULTING AND INDUSTRY EXPERIENCE

- Nov 04 – Jul 05 **Volkswagen AG, Wolfsburg, Germany, and Palo Alto, CA**
Research Consultant
 Evaluated expected cost and benefit of an introduction of RFID technology to the automotive assembly process company-wide. Applied analytical modeling techniques to identify areas of quick return-on-investment and created recommendations for a staged RFID roll-out.
- Jul 04 – Jul 05 **Hewlett-Packard, Richmond, VA, Memphis, TN, and Ontario, CA**
Research Consultant
 Performed process cost analysis of proposed RFID installations at three company sites. Created a mathematical model to quantify realistic RFID cost and process benefits in warehousing, transportation and product assembly.
- Jun - Sep 2001 **Applied Materials, CPI Operations, Santa Clara, California and Austin, Texas**
College Intern reporting to Senior Director of Global Operations
 Team member of company wide initiative focused on re-engineering the company's existing order fulfillment process. Facilitated the design of a cross-functional global tracking and information framework to proactively communicate orders at risk to cycle timeline and other metrics. Identified best practices among the company's divisions, established realistic targets for cycle time and accuracy metrics, and strongly supported change management activities. Organized and led meetings and interacted with all levels of management and staff across multiple divisions. 1.5 years after the inception of the new order fulfillment process,

order cycle times decreased by 50%, and at the same time the number of non-conforming orders decreased by almost 80%.

May - Sep 2000

Earle M. Jorgensen Company (EMJ Metals), Chicago, Illinois
Industrial Engineer Intern reporting to Vice President of Operations

Performed the operational feasibility study on the company's \$31.5 million warehouse expansion and automation plans and developed a projection of the new system's expected output and performance levels. KASTO Engineering subsequently touted this automated warehouse as "the largest, most automated, least expensive, and quickest service center on Earth". EMJ Metals is the largest independent metals distributor in the U.S., and has 35 distribution and service centers worldwide.

UNIVERSITY SERVICE

2008	Chair, Professional Recognition Committee, INFORMS National.
2007/08	Conference Session Chair: IERC 2007, IERC 2008.
Since Oct 2006	Faculty Advisor, Alpha Pi Mu Industrial Engineering Honor Society, Texas A&M.
Oct 04 – Aug 05	President, Stanford German Student Association, Stanford University.
Feb 04 – Oct 05	Representative, Chapters/Fora Committee, INFORMS National.
May 02 – Oct 04	President, INFORMS Student Chapter, Stanford University.
Feb 01 – Aug 05	Social Coordinator, Stanford German Student Association, Stanford University.
2000	Vice President, Residence Hall Council, Georgia Tech.
2000	Senator, Graduate Student Senate, Georgia Tech.

HONORS

2007	5 th -best selling dissertation overall, and #1 selling dissertation in industrial engineering and operations management as ranked by ProQuest. The ProQuest database contains more than 1 million theses.
2004	Department Service Award 2003/2004, MS&E Dept., Stanford University.
2003 - 2004	Partial academic year RFID research funding, The UPS Foundation and The Lillie Funds.
2002	Outstanding Contribution Award, CPI Operations, Applied Materials, Inc.
2000/2001	Doctoral Fellowship, School of Engineering, Stanford University.
Aug 99 - May 00	Foreign Student Scholarship, World Student Fund and Georgia Tech YMCA.
Aug 99 - May 00	Studies Abroad Fellowship, Friedrich Naumann Foundation, Germany.
Oct 98 - Sep 00	Graduate Fellowship, Friedrich Naumann Foundation, Germany.

INTERESTS

Cars – history, restoration, repair and maintenance

Sports – martial arts, running, biking, swimming, tennis, golf

Literature – Shakespeare, Faulkner