



**Sunderesh S. Heragu**  
*Director*



**Thomas Riedel**  
*Associate Director*

## *A Message from the Director*

One aspect of my LoDI Directorship responsibility I look forward to is to report on the progress of LoDI faculty, staff and students over the preceding six months.

We are pleased to report that LoDI faculty and students have been hard at work on a 3-year, \$3.3 million project to develop real-time decision support system for use by healthcare and public health and emergency services sector personnel during and immediately after a pandemic influenza or H1N1 attack.

As part of this project, four post-doctoral fellows – Drs. Aman Gupta, Rob Kelley, Kamran Moghaddam and Yang Liu – have been recruited to assist in various areas of the project. Drs. Gupta, Kelley and Moghaddam are recent graduates of UofL, while Dr. Liu is a graduate of UK. Welcome aboard!

I want to congratulate past LoDI GRAs, Xiao Cai, Aldo McLean, and Xu 'Cissy' Yang for successfully defending their dissertation and finding employment at Federal Express, University of Tennessee, Knoxville and Massachusetts Institute of Technology, respectively. Three new GRAs – Christopher Caragianis (Mathematics), Phani Polina (Computer Science) and Erin Gerber (Industrial Engineering) – have joined the LoDI team and I look forward to their contributions. We are sad to report the unexpected demise of Garry Buttermann, a past LoDI GRA, who was about to complete his doctoral dissertation.

In addition to the above mentioned recruitments and departures, LoDI has had other changes in personnel. Dr. Richard Germain, Professor of Marketing and Challenge for Excellence Chair in Supply Chain Management as well as Associate

Director and Past Director of LoDI, has taken a leave of absence for two years effective September 1st. He will be teaching in St. Petersburg in Russia and on behalf of LoDI. I sincerely thank him for his many contributions to LoDI over the past six years and wish him continued success. I also want to take this opportunity to thank Drs. Suraj Alexander, Professor of Industrial Engineering and Tony Arnold, Boehl Chair in Property and Land Use, Professor of Law for their services as members of the IAB. I am pleased to announce that Dr. Thomas Riedel, Professor and Chair of Mathematics has kindly agreed to serve as Associate Director, and Drs. Gail DePuy and Jerry Evans have agreed to serve as members of the IAB. Dr. Riedel has been a valuable member of the Internal Advisory Board (IAB) of LoDI for several years now and I look forward to his advice and guidance for the next few years. Drs. DePuy and Evans have years of experience in many areas of logistics and distribution and I look forward to collaborating with them.

LoDI is currently focused on the healthcare and public health project and we hope to have developed prototype decision support systems by the time the next newsletter is published. We are grateful for the opportunity to work on problems that impact the cost and quality of logistics services which in turn impact the lives of citizens in the Louisville metro area and beyond. We believe we have been good stewards of the funding we receive and have successfully leveraged it to secure significant extramural funding that will help put UofL and LoDI on the national research map in select areas.

*Sunderesh S. Heragu*

### **Internal Advisory Board**

Gail DePuy  
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*Urban & Public Affairs*

Gerald W. Evans  
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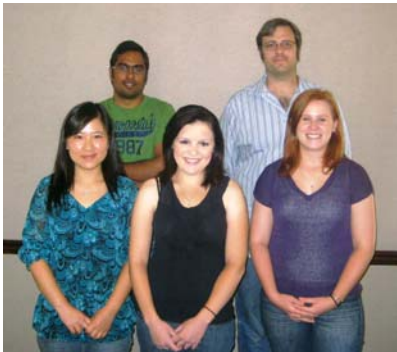
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# WHO'S WHO IN LODI

## Graduate Research Assistants (2010-2011)



From left to right: Li Sun, Phani Polini, Elizabeth Gentry, Christopher Caragianis and Erin Gerber.

### GRA Spotlight



**E**lizabeth Gentry is currently working on her doctoral degree in the Department of Industrial Engineering at the University of Louisville. Dr. Gail DePuy and Dr. Gerald Evans are advising her in her dissertation work. Elizabeth finished both her bachelor's degree and master's degree at the University of Louisville.

While working on both of these degrees, she was an active member of Sigma Kappa Sorority, where she had several positions in the sorority, and now is involved with the Alumni Chapter. Elizabeth is also a volunteer at Southeast Christian Church and tutors the University of Louisville Men's Basketball Team. She is a member of the Institute of Industrial Engineers, Society of Health Systems, Institute for Operations Research and the Management Sciences, and Alpha Pi Mu. She enjoys the field of logistics, along with sports. Elizabeth's dissertation topic combines both of these topics by applying logistics to the subject of NCAA Conference Expansion. She will be analyzing the effects that expanding a conference will have on costs to the student-athlete and to the school and then using the analytical hierarchy process, a decision-making technique, to find out the best ways to save on costs and reduce the distance traveled for games. She is very excited about what she is researching and wants to continue doing research in the field of logistics when she graduates as a professor or engineer at Walt Disney World.

## In Memory Garry G. Buttermann



LoDI Graduate Research Assistant Garry Buttermann passed away on July 15, 2010 after a long illness. Garry was with LoDI from 2007-2009.

## Visiting Scholar from the Netherlands Interns at UofL

### Marcel Ploeg (right) along with Elvin Serrano of the EVPR Office

**V**isiting scholar Marcel Ploeg recently spent time at UofL working with LoDI Director Dr. Sunderesh Heragu. Marcel, a student at the University of Twente, Enschede, The Netherlands, worked as a temporary research assistant on various health care projects.



### Aldo McLean, Ph.D.

## LODI ALUMNI Where Are They Now?



Dr. McLean recently became Assistant Professor of the Engineering Management Department of the College of Engineering and Computer Science at the University of Tennessee in Chattanooga. He was a LoDI GRA until 2007, and later an Adjunct Assistant Professor at the University of Louisville until July 2010.

His teaching and research areas include logistics, supply chain management, quality and operations management.

# WHO'S WHO IN LODI

## External Advisory Board Spotlight

### **Donald G. Fitzpatrick** **General Manager,** **Global Cisco Alliance** **IBM Corporation**



**D**on Fitzpatrick re-joined IBM in November 2001, as Vice President, Global Cisco Alliance, with responsibility for IBM's overall strategy, direction, and business relationship with Cisco.

Under Fitzpatrick's leadership, IBM's business with Cisco has grown into a multi-billion, cross-divisional partnership; with IBM now being recognized as one of Cisco's largest global systems integrators and a top technology provider for their line of networking products. In recognition of this, he was promoted to General Manager in January 2008, and continues to work closely at CEO and senior executive levels across both companies to effectively drive this complex, multi-faceted relationship on a global basis.

Fitzpatrick returned to IBM following six years as President and CEO of AdWare Systems, Inc., a leading solutions provider to the global advertising industry. While at AdWare, he successfully transformed their U.S. and London-based application offerings to a hosted, Software-as-a-Service (SaaS) model, and expanded their customer base to over twenty countries. He established AdWare as a leader in the digital content management arena by forging a partnership with IBM to build and co-market solutions on a global basis, and by hosting a first-of-a-kind content management service at one of the world's largest advertising conglomerates. Working directly with major advertising agencies, broadcasters and advertisers, he drove cross-industry initiatives to streamline the media buying and delivery supply chain, utilizing XML and advanced digital media and telecommunications technologies. Fitzpatrick successfully led the effort to sell the company in 2000.

From 1980 through 1994, he held positions in sales, market development, marketing management and general management with IBM. His experience included extensive exposure to the telecommunications and advertising industries. He created IBM's marketing communications vertical industry segment in New York, and went on to lead business development efforts for that industry across North America. He then led the marketing and systems engineering teams driving workstation and networking solutions across NYNEX. Fitzpatrick's most recent assignment at IBM during this period was as Business Unit Executive, Connecticut Region. This included management responsibility for sales, consulting, and technical professionals covering major Fortune 500 companies across Connecticut. He earned numerous awards for business attainment, customer satisfaction, management excellence, and leadership.

Fitzpatrick was a founding member of the Louisville chapter of The Executive Committee, a global network of CEOs, is a past Director of the Greater Louisville Economic Development Partnership, and served as Greater Louisville Inc.'s Executive-in-Residence during 2001. He currently serves as IBM's Senior State Executive for the Commonwealth of Kentucky, is on the Board of Directors of the Greater Louisville Logistics Network, and is a member of University of Louisville's Logistics and Distribution Institute (LoDI) Advisory Board.

He graduated from Syracuse University in 1980, with a Bachelor of Arts degree from the Maxwell School of Citizenship and Public Affairs, and has attended several advanced management programs at Harvard University and Babson College. He resides in Louisville, Kentucky with his wife and three children.

## LODI SEMINARS and WORKSHOPS

### Suresh P. Sethi

School of Management  
The University of Texas at  
Dallas



### Kenneth J. Musselman, Ph.D.

Strategic Collaboration Director  
Regenstrief Center for  
Healthcare Engineering  
Purdue University

### Cooperative Advertising in a Dynamic Retail Market duopoly

March 1, 2010  
Vogt Engineering Bldg., Room 311

**C**ooperative advertising is an important incentive offered by a manufacturer to influence retailers' promotional decisions. We analyze a retail market duopoly where one or both of competing retailers are supported by the manufacturer in their advertising costs. We model the problem as a Stackelberg differential game in which the manufacturer announces his shares of advertising costs of the two retailers or his participation rates, and the retailers in response play a Nash differential game in choosing their optimal advertising efforts over time. We obtain the feedback equilibrium solution consisting of the optimal advertising policies of the retailers and manufacturer's participation rates. We identify the key drivers that determine the optimal participation rates and, in particular, obtain the conditions under which the manufacturer will support one or both of the retailers. Finally, we analyze the extent to which cooperative advertising coordinates the channel.

### Transforming Healthcare Delivery

September 10, 2010  
Vogt Engineering Bldg., Room 311

**T**he United States is the undisputed world leader in developing revolutionary medical equipment and pharmaceuticals, yet our healthcare delivery system causes more than 98,000 preventable deaths and one million injuries each year. Moreover, our per capita health expenditures are significantly higher than any other nation, and they continue to increase at three times the inflation rate. The system is plagued with inefficiencies, unnecessary duplications, poor communication, lack of patient engagement, and misuse of resources – barriers which generate more than a half-trillion dollars of system waste each year.

In 2005, a study of healthcare delivery by the National Academy of Engineering and the Institute of Medicine urgently called for a new partnership between engineering and healthcare to address these issues. In response, Purdue University established a healthcare engineering research center to design, implement and sustain multidisciplinary solutions to achieve a transformed healthcare delivery system that optimizes quality, cost-effectiveness and access for all persons. This presentation will explore how the Regenstrief Center for Healthcare Engineering is helping to systematically reshape our healthcare delivery system.

# LODI EVENTS

## Industrial Engineering German Scholars

Approximately 50 German students were at UofL during the summer working on their PhDs with the Industrial Engineering Department. LoDI was host to the visitors on Friday evening, July 16, at Hillcrest in Prospect. Invited guests included faculty, staff, and students.



## Real-Time Pandemic Response

The U.S. Department of Homeland Security, through the National Institute for Hometown Security, funded a \$3.3 million award for UofL researchers to address 'real-time' pandemic response. The research group is headed by LoDI Director, Industrial Engineering Professor and Mary Lee and George F. Duthie chair Dr. Sunderesh Heragu, and includes faculty from the Speed School as well as the School of Public Health and Information Sciences.



## REFEREED RESEARCH ARTICLES

### by LODI FACULTY & STUDENTS (2009-2010)

- A. Kuruville and **S.M. Alexander**. "A Study of the Cascading Effects of Ambulance Diversion Among Hospitals", accepted, to appear in the International. *Journal of Information Systems in the Service Sector*, 2010.
- A. Kuruville and **S.M. Alexander**, "Predicting Ambulance Diversion", to appear in *International Journal of Information Systems in the Service Sector*, Mar. 2009.
- X. Wang and **S.M. Alexander**, "Linking medical records: a machine learning approach", accepted to appear, *International Journal of Collaborative Enterprise*, 2010.
- **G. Buttermann** and **R. Germain**, "Entrepreneurial Orientation, Inventory Efficiency, and Medical Performance: A Study of Short Term Acute Care Hospitals," to appear in *Proceedings of the 2010 Babson College Entrepreneurship Research Conference*, 2010.
- **G. Buttermann**, **R. Germain** and K. Iyer, "Contingency Theory "Fit" as Gestalt: An Application to Supply Chain Management," to appear in *Transportation Research Part E: Logistics and Transportation Review*, 2010.
- **X. Cai**, **S.S. Heragu**, A. Krishnamurthy, and C.J. Malmborg, "Analysis of Autonomous Vehicle Storage and Retrieval System by Open Queuing Network," *Proceedings of the 2009 IEEE Conference on Automation Science and Engineering*, Bangalore, India, Aug 22-25, 2009.
- **L. Chen** and **S.M. Alexander**, "Capacity Driven Pricing Mechanism in Special Service Industries", *The Journal of Revenue and Pricing Management: Special Issue on Pricing and Revenue Models in the New Service Economy*, Nov. (2010)
- **B. Davis**, **R. Germain** and T. Stank, "The Impact of Order Fulfillment Service on Retailer Merchandising Decisions in the Consumer Durables Industry," to appear in *Journal of Business Logistics*, 2010.
- **B. Davis**, **R. Germain** and K. Iyer, "Supply Chain Technology: The Role of Environment in predicting Performance," to appear in *Journal of the Academy of Marketing Science*, 2010.
- R.M. McCardle, **G.W. DePuy**, and **L. Chen**. "Farm Management Optimization," *Proceedings of the 2009 Industrial Engineering Research Conference*, May 30-June 3, 2009, Miami, Florida, 6 pages.
- **G.W. DePuy**, "Chain-reaction: A puzzle to demonstrate TSP formulation, *INFORMS Transactions on Education*, Vol. 10, No. 1, pp. 41-44, 2009.
- **G.W. DePuy**, "Design Tool for Unit Load AS/RS Systems," *Proceedings of the 2009 Industrial Engineering Research Conference*, May 30-June 3, 2009, Miami, Florida, 6 pages.
- **G.W. DePuy**, D. Grieshaber, and C.T. Hardin. "Skills Management Assignment Problem with Dynamic Costs," *Proceedings of the 2009 Industrial Engineering Research Conference*, May 30-June 3, 2009, Miami, Florida, 6 pages.
- **G.W. DePuy**, "Excel-Based Design Tool for Unit Load AS/RS Systems," *Proceedings of the 2009 International Conference on Value Chain Sustainability*, October 19-21, 2009, Louisville, Kentucky, 6 pages.
- **G.W. DePuy**, "Solving the QAP Using Combinations of Heuristics," *Proceedings of the 2009 International Conference on Value Chain Sustainability*, October 19-21, 2009, Louisville, Kentucky, 6 pages.
- **G.W. DePuy**, "Facilities Layout Meta-Heuristic," *Proceedings of the 2009 International Conference on Value Chain Sustainability*, October 19-21, 2009, Louisville, Kentucky, 6 pages.
- **G.W. DePuy**, **J.S. Usher**, **R.L. Walker**, and G.D. Taylor. "Production Planning for Remanufactured Products," to appear in *Production Planning and Control*, 2010.
- S. Hepdogan, R. Moraga, **G.W. DePuy**, and G.E. Whitehouse, "A Meta-RaPS Solution for the Early/Tardy Single Machine Scheduling Problem," *International Journal of Production Research*, Vol. 47, No.7, pp. 1717-1732, 2009.
- D. Drosos, **G.W. DePuy**, G.D. Taylor, and T. Whyte, "Clustering Techniques for Barge to Boat Assignment," *International Journal of Industrial Engineering*, Vol. 16, No. 2, pp. 71-81, 2009.
- **B. Ekren** and **S.S. Heragu**, "Approximate Analysis of Load Dependent Generally Distributed Queuing Networks with Low Service Time Variability," *European Journal of Operational Research*, Vol. 205, No. 2, pp. 381-389, September 2010.
- **B. Ekren**, **S.S. Heragu**, A. Krishnamurthy and C.J. Malmborg, "Simulation Based Experimental Design to Identify Factors Affecting Performance of AVS/RS," to appear in *Computers and Industrial Engineering*, Vol. 58, No. 1, pp. 175-185, February 2010.
- **B. Ekren** and **S.S. Heragu**, "Simulation Based Regression Analysis for Rack Configuration of Autonomous Vehicle Storage/ Retrieval Systems", to appear in *International Journal of Production Research*, 2010, DOI: 10.1080/00207540903321665.
- **B. Ekren** and **S.S. Heragu**, A. Krishnamurthy, and C. J. Malmborg, "Simulation Based Experimental Design To Identify Factors Affecting Performance of AVS/RS", *Proceedings of the 2009 Industrial Engineering Conference*, Miami, FL, May 30-June 1, 2009.
- **B. Ekren**, **S.S. Heragu**, A. Krishnamurthy and C.J. Malmborg, "Semi-Open Queuing Network Approach for Modeling Autonomous Vehicle Storage and Retrieval System," *Proceedings of the 2009 Factory Automation and Information Management Conference*, Middlesbrough, UK, July 5-8, 2009.
- **B. Ekren** and **S.S. Heragu**, "Simulation Based Regression Analysis for Rack Configuration of Autonomous Vehicle Storage and Retrieval Systems," *Proceedings of the Winter Simulation Conference*, December 13-16, Austin, TX, 2009.
- **G.W. Evans** and **L. Chen**, "Incorporation of Critical Thinking Concepts into Industrial Engineering Courses," in the *Proceedings of the 2010 Industrial Engineering Research Conference*, Cancun, Mexico, June 2010.
- C. Forgie and **G.W. Evans**, "Methodology for Assessing Technology Development Risk," to appear as Chapter 4 in *Systems Engineering: Tools and Methods for Engineers* (A. Kamrani, Ed.), Taylor and Francis Publishing Co., New York.
- A. Gupta and **G.W. Evans**, "A Goal Programming Model for the Operation of Closed Loop Supply Chains," *Engineering Optimization*, 41:8, pp. 713-735, August 2009.
- M. Zakerifar, W.E. Biles, and **G.W. Evans**, "Kriging Metamodeling in Multi-Objective Simulation Optimization," in the *Proceedings of the 2009 Winter Simulation Conference*, Austin Texas, December 2009.
- K. Iyer, **R. Germain** and C. Claycomb, "B2B E-commerce Supply Chain Integration and Performance: A Contingency Fit Perspective on the Role of Environment," to appear in *Information & Management*, 2010.

## RESEARCH ARTICLES

### by LODI FACULTY & STUDENTS (Cont'd)

- **R. Germain**, C. Dröge and C. Claycomb, "Supply Chain Variability, Organizational Structure and Performance: The Moderating Effect of Demand Unpredictability," to appear in *Journal of Operations Management*, 2010.
- **R.S. Hadavale** and **S.M. Alexander**, "A Framework for Risk Assessment and Mitigation in the Supply Chain", *Proceedings FAIM conference*, San Francisco, CA., 2010.
- **R.S. Hadavale** and **S.M. Alexander**, "Application of Web Based Supplier Risk Assessment for Supplier Selection.", *Proceedings, IERC Annual conference*, Miami, FL, 2009.
- **S.S. Heragu**, **X. Cai**, A. Krishnamurthy and C.J. Malmborg, "Open Queueing Network Model for an Autonomous Vehicle Automated Storage/Retrieval System," in R. Meller, M.K. Ogle, B.A. Peters, G.D. Taylor and J.S. Usher (Eds.), *Progress in Material Handling Research:2008*, The Material handling Institute, Charlotte, NC, ISBN: 978-1-882780-15-0. 2009.
- **S.S. Heragu**, **C. Xiao**, A. Krishnamurthy and C.J. Malmborg and "Analytical Models for Automated Storage and Retrieval Systems and Autonomous Vehicle Storage and Retrieval Systems", to appear in *International Journal of Production Research*, 2010.
- **S.S. Heragu** and **B. Ekren**, "Materials Handling Systems Design", in M. Kutz (Ed.), *Environmentally Conscious Manufacturing*, Wiley, Hoboken, NJ, pp. 1-29, 2009.
- **S.S. Heragu** and **B. Ekren**, "Manufacturing Facility Design and Layout", in J.J. Cochran (Ed.), to appear in *Wiley Encyclopedia of Operations Research and Management Science*, Wiley, New York, NY, 2010.
- **S.S. Heragu** and M. Srinivasan, "Analysis of Manufacturing Systems via Semi-Open Queueing Networks," to appear in *International Journal of Production Research*, 2010, DOI: 10.1080/00207540903527378.
- **S.S. Heragu** and M. Srinivasan, "Analysis of Manufacturing Systems via Semi-Open Queueing Networks," to appear in *International Journal of Production Research*, 2010.
- D. Roy, A. Krishnamurthy, **S.S. Heragu**, and C.J. Malmborg, "Vehicle Interference Effects in Warehousing Systems with Autonomous Vehicles," *Proceedings of the 2010 IEEE Conference on Automation Science and Engineering*, Toronto, Canada, Aug 21-24, 2010.
- D. Roy, A. Krishnamurthy, **S.S. Heragu**, and C.J. Malmborg, "Impact of Zones on Throughput and Cycle Times in Warehouses with Autonomous Vehicles," *Proceedings of the 2009 IEEE Conference on Automation Science and Engineering*, Bangalore, India, Aug 22-25, 2009.
- Jia, J. and **S.S. Heragu**, Solving Semi-Open Queueing Networks, *Operations Research*, Vol. 57, No.2, pp.391-401, March-April 2009.
- G. Meng, **S.S. Heragu** and H. Zijm, "Two-level Analysis of Manufacturing Systems with Cells or Departments," *International Journal of Production Research*. Vol.47,No.1, pp.2301-2326, May 2009.
- **L. Sun**, **S.S. Heragu**, **L. Chen**, and M.L. Spearman, "Simulation Analysis of a Multi-Item MRP System Based on Factorial Design," *Proceedings of the Winter Simulation Conference*, December 13-16, 2009, Austin, TX.
- **L. Sun** and **S.S. Heragu**, "Comparison of OQN, CQN, and SOQN via Simulation on CONWIP Systems," *Proceedings of the Winter Simulation Conference*, December 13-16, 2009, Austin, TX.
- L. Zhang, A. Krishnamurthy, C. J. Malmborg, and **S.S. Heragu** "Variance-Based Approximations of Transaction Waiting Times in Autonomous Vehicle Storage and Retrieval Systems", *European Journal of Industrial Engineering*, Vol. 3, No. 2, pp. 146-169, 2009.
- L. Zhang, A. Krishnamurthy, C.J. Malmborg and **S.S. Heragu**, "Specialized Queueing Models for Autonomous Vehicle Automated Storage and Retrieval Systems," in R. Meller, M.K. Ogle, B.A. Peters, G.D. Taylor and J.S. Usher (Eds.), *Progress in Material Handling Research: 2008*, The Material handling Institute, Charlotte, NC, ISBN: 978-1-882780-15-0, 2009.
- **T. Rao**, **S.S. Heragu**, **G.W. Evans**, "Quantifying the Costs and Benefits of Product Variety on Key Performance Measures", *Proceedings of the 2009 Industrial Engineering Conference*, Miami, FL, May 30-June 1, 2009.
- **T. Rao**, **S.S. Heragu**, **G.W. Evans**, "Quantifying the Costs and Benefits of Product Variety on Key Performance Measures", *Proceedings of the 2009 Industrial Engineering Conference*, Miami, FL, May 30-June 1, 2009.
- "**X. Yang**, **S.S. Heragu**, and **G.W. Evans**, "Integrated Production-Inventory-Distribution Optimization in a Multi-echelon, Multi-product, Multi-carrier, Multi-period System, to appear in *International Journal of Value Chain Management*, 2010.

## SPONSORED RESEARCH PROJECTS by LODI FACULTY — 2009-10

- "Development and Field Testing of a Shopping Mall and Public Facility HVAC Explosives Monitoring System," 2005-2009, *Department of Homeland Security*, \$1,205,184, Naval Research Labs, R. Keynton, K. Walsh, **S.M. Alexander**, J. Naber, T. Roussel and M. Martin.
- "Training for Implementation of Critical Thinking Constructs in the Undergraduate Core at the JB Speed School of Engineering," 2010-2011, funded for \$15,000 by the *University of Louisville i2a Task Force*, co-PIs: P.A.S. Ralston, M. Schreck, D.J. Hagerty, J.H. Graham, and **G.W. Evans**.
- "'Studying the Impact of RFID in the Design & Analysis of Next Generation Distribution & Logistical Systems", \$149,911 1 year, Aug 2008-July 2009, *National Science Foundation*, **S.S. Heragu** and R. Ingalls (Oklahoma State University).
- "Center for Engineering Logistics and Distribution (CELDi)", *National Science Foundation I/U-CRC*, \$492,000, 2002-2011. **S.S. Heragu** & **J.S. Usher**
- "Conceptualization Tools for Unit Load Warehouse Design Based on Autonomous Vehicle Technology," \$340,350 Aug 2005 - Sept 2009, *National Science Foundation*, A. Krishnamurthy (University of Wisconsin-Madison), **S.S. Heragu**, and C.J. Malmborg (Rensselaer Polytechnic Institute).
- "Collaborative Proposal: Early-concept Grants for Exploratory Research (EAGER): Design Principles for Warehouses with Autonomous Vehicles (WAVE)," *National Science Foundation*, \$260,000, Oct 1, 2009-Sept 30, 2011, **S.S. Heragu** and A. Krishnamurthy (University of Wisconsin-Madison).
- "Real-time decision support system for healthcare and public health sector protection," \$3.3 million, *The Department of Homeland Security via the National Institute of Hometown Security*, **S.S. Heragu** & **several co-PIs** Jan 2010-Dec 2012.

## David F. Baker Distinguished Research Award Announcement

**S**underesh S. Heragu, Professor and the Mary Lee and George F. Duthie Chair in Engineering Logistics in the Industrial Engineering department at the University of Louisville (UofL), was awarded the *David F Baker Distinguished Research* award by the *Institute of Industrial Engineers* (IIE) on June 7<sup>th</sup>, 2010 in Cancun, Mexico at an awards banquet during IIE's annual conference.



The *David F Baker Distinguished Research* award recognizes outstanding research in the profession. It is given for a career of accomplishments that has broadly benefitted practitioners, organizations, or other researchers rather than for a single activity or application. It is one of two top awards given by the Institute

Institute and *the* top award for research. Only 34 awards have been given in the past 43 years.

IIE is the world's largest professional society dedicated solely to the support of the industrial engineering profession and individuals involved with improving quality and productivity. Founded in 1948, IIE is an international, nonprofit association that provides leadership for the application, education, training, research, and development of industrial engineering. Dr. Heragu is a Fellow of IIE. In the past, he has received numerous awards from IIE - the IIE Award for Technical Innovation, the IIE Transactions on Design and Manufacturing Award and IIE Transactions Award for Best Paper published in "Feature Applications" as well as the Gold Award of Excellence for leadership in Facilities Planning and Design.

This publication was prepared by the University of Louisville and printed with state funds KRS 57.375.

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