



2015 DCMME Fall Conference

Friday, October 30, 2015

“Managing Smart Manufacturing”

Featured Speakers from



Thank you, Center Partners & Event Sponsors!



Message from the Center Director

October 30, 2015

Dear Conference Attendees,

On behalf of the Krannert School of Management's Dauch Center for the Management of Manufacturing Enterprises (DCMME), welcome to Purdue University! We trust that you will find the information shared during this conference on "Managing Smart Manufacturing" to be both interesting and beneficial to you.

We are delighted to hear from nine featured speakers: Will Phillips & Daniel Louks of *INDYCAR*; Russell Hillenburg of *Woven Metal Products, Inc.*; Tomás Díaz de la Rubia of *Purdue Discovery Park*; Eric Matteson of *GE Aviation*; Stacey M. DeVecchio of *Caterpillar Inc*; Roy Vasher of *Purdue University*; Bob Nida of *Wabash National*; and Alexander Nazarov of *Cummins Inc.*

We appreciate our industry sponsors and partners for continually introducing interesting business issues to the Center, which enable our faculty and students to learn about unique, developing industry challenges. We are actively collaborating with our sponsors and exploring various project opportunities.

It is our sincere hope that the interaction with our talented faculty, our energetic students, and your fellow practitioners will be of great benefit to you and your organizations. We hope you'll share the benefits of the conference and our Center with your colleagues. We truly appreciate your interest and support of the Krannert School of Management and the DCMME Center.



Dr. Ananth Iyer
Susan Bulkeley Butler Chair in Operations
Management
Director, DCMME and GSCMI
Faculty Director, PurdueNExT
Krannert School of Management
Purdue University





Dr. Ananth Iyer

**Susan Bulkeley Butler Chair in Operations Management
Director, DCMME and GSCMI
Faculty Director, PurdueNExT
Krannert School of Management, Purdue University**

Professor Iyer is the Susan Bulkeley Butler Chair in Operations Management at the Krannert School of Management. He is also the Director of Purdue NExT (a University wide modular online interactive courses for global distribution) and Director of the DCMME & GSCMI Centers. He was the Associate Dean for Graduate Programs (2011-2013) and Director of DCMME (Dauch Center for the Management of Manufacturing Enterprises) and the founding Director of GSCMI (the Global Supply Chain Management Initiative) (2006-2011) at the Krannert School of Management. Previously, he was Purdue University Faculty Scholar from 1999-2004. His teaching and research interests are operations and supply chain management. Professor Iyer's research currently focuses on analysis of supply chains including the impact of promotions on logistics systems in the grocery industry, and analysis of the impact of competitors on operational management models and the role of supply contracts. His other topics of study include inventory management in the fashion industry, effect of supplier contracts, and use of empirical data sets in operations management model building.

He has four books ranging from a textbook on Managing Supply chains to trade books on Toyota Supply Chains, Supply Chains on the Silk Road and Orchestrating Supply Chain Opportunities. His published works (with co-authors listed in the publications list) include "An Approach to Identifying Beneficial Collaboration Securely in Decentralized Logistics Systems, MandSOM (to appear)," "Efficient Supply Chain Management at the US Coast Guard using Part Age Dependent Supply Replenishment Policies", Operations Research, 2006, 'A Principal Agent Model for Product Specification and Production', Management Science, 2005, "The Logistics Impact of a Mixture of Order Streams in a Manufacturer-Retailer System", Management Science, 2003, "The Supply Chain Impact of Smart Customers in a Promotional Environment" with Huchzermeier and Freiheit, MandSOM, 2002; "Inventory Cost Impact of Managing Lead Times using Priority Queues based on Demand Uncertainty," Naval Research Logistics, 2002; "A Logistics Model in a Promotion Sensitive Grocery Environment" with J. Ye, Networks, 2001; "Assessing the Value of Information Sharing in a Promotional Environment" with J. Ye, Manufacturing and Service Operations Management, 2000; "Quick Response in Manufacturer Retailer Channels" with Mark Bergen, Management Science, 1997; "Backup Agreements in Fashion Buying - The Value of Upstream Flexibility" with G. Eppen, Management Science, 1997; and "Separating Logistics Flows in the Chicago School System" with D. Elsenstein, Operations Research, Vol. 44, No. 2, 1996. He was the FMC Scholar in 1990-91. He has served as a Department Editor of Management Science, Associate Editor of Operations Research, is on the editorial boards of Operations Research Letters, IIE Transactions, the ECR Journal and Manufacturing and Service Operations Management editorial board, and member of INFORMS.

He was president-elect of the MSOM Society of INFORMS in 2001-02 and served as president for the year 2002-03. Prior to joining the Krannert faculty in 1996, Professor Iyer taught at the University of Chicago. He has been affiliated with the Production and Distribution Research Center at Georgia Tech, and a consultant to Daymon Associates, Sara Lee, Turner Broadcasting and others. He served his Chicago community as a pro bono consultant to the Chicago School System and the Chicago Streets and Sanitation Department. [Dr. Iyer blogs about Global Supply Chain Management at http://aviyer2010.wordpress.com/author/aviyer2010/](http://aviyer2010.wordpress.com/author/aviyer2010/)



Steven Dunlop

Managing Director, DCMME-GSCMI Centers

Managing Director, PurdueNExT

Steven Dunlop has over 25 years of experience working within the private sector in project and senior management positions in the areas of finance, IT, commodity trading, and transportation. He has spent the last 5 years within Purdue University as Project Director for a variety of education and software development projects, including a \$2,000,000 NSF grant and worked within ITaP developing the team to support the Education and Outreach focus. Steven has his MBA from Indiana Wesleyan University.



Heidi Allwes

Center Coordinator, Dauch Center for the Management of Manufacturing Enterprises
& Global Supply Chain Management Initiative

*The Center of Management of Manufacturing Enterprises was initiated in 1987 with grants from Ameritech, Chrysler, Ingersoll-Rand, Hillenbrand Industries, and TRW. The Center was established in 1988 with the goal of creating a partnership between academia and the manufacturing community to develop academic and research programs for the purpose of producing technically sound, globally cognizant professionals and academicians to enhance **global manufacturing** competitiveness. In 1998, the Krannert School announced the naming of the center as the Dauch Center for the Management of Manufacturing Enterprises (DCMME) in honor of the Richard E. Dauch family. Manufacturing Excellence is what our partners practice, our faculty research, and our students learn.*

*The Global Supply Chain Management Initiative was launched in 2005 to provide a forum for students, faculty, industry partners and alumni to engage and interact through programs and services that will result in greater understanding of the differentiating advantage realized by a strategically coordinated **global supply chain**. The supply chains that typify commerce in today's global economy are highly fragmented, consisting of numerous independent entities scattered across the globe and separated by geographic, political, and economic barriers. The impact of establishing and maintaining these complex supply chains on the costs, speed, and flexibility of doing business is immense.*

DCMME Fall Conference

“Managing Smart Manufacturing”

OCTOBER 30, 2015

(Jerry S. Rawls Hall, RM 2082, Purdue University)

8:00am-8:30am	Registration and Breakfast, RM 2011 (Open Commons Area)
8:30am-8:35am	Welcome! RM 2082 Opening Remark Dr. Ananth Iyer , DCMME & GSCMI Center Director
8:35am-8:40am	Greetings from the Dean Dr. David Hummels , Dean of Krannert School of Management
8:40am-11:00am	2015 DCMME Fall Conference Session 1, Rawls Hall, RM 2082
8:40am-9:10am	Will Phillips , V.P. Technology, Daniel Louks , Engine Support Engineer, <i>INDYCAR, Verizon IndyCar Series</i> “Data Acquisition and the Role of Computer Technology in the Verizon IndyCar Series” (Session moderated by Dr. Karthik Kannan , Professor of Mgmt.)
9:10am-9:40am	Russell Hillenburg , President, <i>Woven Metal Products, Inc.</i> “Smart Business” (Session moderated by Dr. Susan Watts , Professor of Mgmt.)
9:40am-10:10am	Tomás Díaz de la Rubia , Chief Scientist & Exec. Dir., <i>Purdue Discovery Park</i> “Smart Challenges” (Session moderated by Dr. Tom Brush , Senior Associate Dean, Head of the Department of Management)
10:10am-10:15am	Session Summary, Dr. Ananth Iyer
10:15am-11:00am	Break & Poster Competition Part 1, RM 2011
11:00am-1:35pm	2015 DCMME Fall Conference Session 2, Rawls Hall, RM 2082
11:00am-11:30am	Eric Matteson , Plant Leader, <i>GE Aviation</i> “Brilliant Machines” (Session moderated by Dr. Ananth Iyer , <i>Susan Bulkeley Butler Chair in Operations Management, Professor of Mgmt.</i>)
11:30am-12:00pm	Stacey M. DelVecchio , Additive Manufacturing Product Manager, <i>Caterpillar Inc.</i> “Smart 3D Printing” (Session moderated by Dr. Dan Hirleman , Chief Corporate and Global Partnerships Officer, Office of the Exec. Vice President for Research & Partnerships)
12:00pm-12:30pm	Roy Vasher , Assistant Professor of Management, <i>Purdue University</i> “Smart Robotics” (Session moderated by Dr. Gemma Berenguer , Assistant Prof. Mgmt.)
12:30pm-12:35pm	Session Summary, Dr. Ananth Iyer
12:35pm-1:35pm	Lunch, Rawls Hall, RM 3011
1:35pm-3:20pm	2015 DCMME Fall Conference Session 3, Rawls Hall, RM 3011 & 2082
1:35pm-2:05pm	Poster Competition Part 2, RM 3011
2:05pm-2:35pm	Alexander Nazarov , Chief Engineer - COE, <i>Cummins Inc.</i> “Customer Expectations and How a Corporate Ecosystem Could Help” (Session moderated by Dr. John W. Sutherland , Professor and <i>Fehsenfeld Family Head, Department of Environmental and Ecological Engineering</i>)
2:35pm-3:05pm	Bob Nida , VP- Organizational Development, <i>Wabash National</i> “Smart People” (Session moderated by Dr. Ellen Kossek , <i>Basil S. Turner Prof. of Mgmt.</i>)
3:05pm-3:10pm	Conference Closing Remark Dr. Ananth Iyer , DCMME & GSCMI Center Director
3:10pm-3:20pm	Refreshments & Departure

Featured Speakers

(PRESENTATION ORDER)



Presenter: Will Phillips, V.P. Technology, INDYCAR,
Verizon IndyCar Series

Title: Data Acquisition & the Role of Computer Technology in the
Verizon IndyCar Series

Motorsports is about getting the car to perform competitively – better than competing designs. Large amounts of data from over 100 sensors track performance and is optimized through design adjustments to achieve this result. The presentation will highlight the close interaction between the data acquisition and its use to fine tune a competitive racecar. Optimizing this data to improve performance is thus a key capability in this industry. Participants will get a glimpse of the future of manufacturing – as the cost of sensors and data acquisition devices drop, more and more devices – from passenger cars to refrigerators and washing machine to machine tools, will generate lots of continuous data that will be routinely used to optimize their performance. How all of this comes together in the heat of the race will provide a fascinating look at this industry as a harbinger for Smart Manufacturing in Indiana.

About the Speaker:

INDYCAR named Will Phillips as Vice President of Technology in March 2011, responsible for overseeing the direction and implementation of the technical rules package for the next generation of Verizon IndyCar Series car and their enforcement starting with the 2012 season.

Additionally, Phillips chairs the IEC and IAC (INDYCAR Engine Committee and INDYCAR Aero Committee), groups of representatives from the Verizon IndyCar Series manufacturers that meet several times a year to discuss goals and emerging technologies while developing a roadmap for the future.

Phillips, of the United Kingdom, served as engineering director for Patron Highcroft Racing in the American Le Mans Series, which won the LMP championship in 2010. He also has held senior engineering positions in North American racing with de Ferran Motorsports, PacWest Racing, Herdez Competition and Rocketsports.

Phillips was responsible for the design, development and delivery of the Reynard 02S sports car. Additionally, he contributed to chassis design and development for March's 1989 & 90 Porsche Indy, the 1991 Fondmetal Formula One car and 1992 Venturi Larrouse Formula One car.

Phillips as a race engineer has worked with current Verizon IndyCar Series drivers Ryan Hunter-Reay, Simon Pagenaud and previously Alex Tagliani, Danny Sullivan, Scott Sharp, Nigel Mansell and Teo Fabi among others. www.indycar.com

Presenter: Daniel Louks, Engine Support Engineer, INDYCAR,
Verizon IndyCar

About the Speaker:

Daniel Louks joined INDYCAR as Engine Support Engineer in November 2011, responsible for data collection, analysis, and inspections of Honda and Chevy Engines for Rules compliance.

Louks, from Lebanon, Indiana, received his Bachelor of Science in Aeronautical and Astronautical Engineering from Purdue University in 1998. Following graduation, Daniel started his career working with drag-racing chassis manufacturer McKinney Corp. as an extension of research work he performed during his studies at Purdue. He continued the work with a variety of research & development projects including on-board data acquisition, CFD analysis, aerodynamic design, and custom software designs. He held data engineering positions in IndyCar Racing since 2001, and during his tenure with racing teams has worked with current Verizon IndyCar Series drivers Ryan Hunter-Reay, Takuma Sato, and Graham Rahal, among others.
www.indycar.com

Session moderated by Dr. Karthik Kannan, Professor of Mgmt.



Dr. Karthik Kannan, Professor of Management

Website: <http://www.krannert.purdue.edu/faculty/kkarthik/>

Karthik Kannan is a Professor at Purdue's Krannert School of Management. He has proposed the concept of "Design for Instincts" as a way to organize businesses in the current age. His research focuses on the same "Design for Instincts" theme. Specifically, he studies how different aspects of information technology may be used to exploit human instincts and biases in order to nudge/manipulate behavior. You can learn more about his research from [here](#). He works on three primary research streams: pricing using auctions of information goods, pricing of data networks, and economics of information security. His papers have been accepted in several leading conferences and journals in the information systems area, including

Management Science, Information Systems Research, Workshop on Information Technology and Systems, Workshop on Information Systems Economics, International Conference on Information Systems, and Conference on Information System and Technology. His papers have won the Best Paper Awards in the 10th and the 15th Annual Workshop on Information Technology and Systems. He currently serves/had served as an Associate Editor for *Management Science, Information Systems Research, and MIS Quarterly*. He is a member of AIS and INFORMS. He is also a [CERIAS](#) Fellow and Krannert's Faculty Fellow.

At Purdue, he teaches the IT course in the MBA programs (in the regular, weekend, and Exec Ed MBA). He has also been a visiting faculty member at GISMA and ISB. Previously, he taught the undergraduate core course as well as a database course.

Prior to joining Purdue, he obtained his PhD in information systems, MS in Electrical and Computer Engineering, and MPhil in Public Policy and Management all from Carnegie Mellon University. Before joining the graduate school, he worked with Infosys Technologies for a couple of years. His undergraduate degree is in Electrical and Electronics Engineering from NIT Trichy (formerly, REC Trichy).



Presenter: **Russell Hillenburg**, President

Woven Metal Products, Inc.

Title: **Smart Business**

Russ Hillenburg from Woven Metal Products, Inc. will present how being smart about managing domestic capacity to respond to urgent orders and routine orders helps them stay competitive, the technology investments that have been required, and the need to maintain skill sets to be competitive.

About the Speaker:

Michael Crossk began his career at AAM in June of 1997 as a College Graduate In Training in the Detroit Gear & Axle Materials Department. He has served primarily in the Material Handling and Packaging group in both a daily operational and advanced engineering role. Early on in his career Michael assumed the role of Material Handling Engineer with responsibilities for all Material Handling and Packaging throughout AAM's North American facilities. This included responsibilities to develop program budgets and forecasts as well as procuring all necessary packaging and material handling devices. Between 2008 and 2013 Michael has explored opportunities with Cummins Turbo Technologies and Fiat Chrysler Automobiles. Within these positions, Michael has had the opportunity to become well versed in lean packaging and lean material display strategies to optimize the operator's productivity and efficiency. Upon returning to AAM, Michael has been appointed Senior Value Stream Engineer for the North American Driveline Business Unit. In this role Michael is responsible for all the Advanced Engineering for new production programs with a specific focus on advanced value stream maps and Non-Value-Added-Activity reduction thru Lean Packaging and Lean Material Display. Michael has challenged himself to invoke a culture where optimum operator productivity and material delivery driver efficiency can be achieved thru establishing a Lean Methodology in step with the development of new manufacturing programs and product development. Michael holds a Bachelor of Science degree in Industrial Technology. He is the last in line from a large family of proud Purdue Boilermaker alum.

Session moderated by Dr. Susan Watts, Professor of Mgmt.



Dr. Susan Watts, Professor of Management

<http://www.krannert.purdue.edu/academics/Accounting/Professor-Susan-Watts-page.asp>

Susan Watts is currently a Professor of Management in the Krannert School of Management at Purdue University. Her research focuses on the effect of information and competition in markets. Most recently, her efforts have been focused on understanding voluntary disclosures made by firms—what triggers them and how they affect stock prices and product market competition. She has also continued to study firms' decisions to engage in socially responsible activities and how those decisions affect product market competition as well as disclosure and assurance decisions made by rival firms. Some of her earliest papers use experimental economics methods to study information dissemination in asset markets. Her work has been published in various journals including Journal of Accounting Research, Journal of Accounting & Economics, The Accounting Review, Rand Journal of Economics, Management Science, Review of Accounting Studies, Contemporary Accounting Research, Journal of Management Accounting Research, Journal of Economics & Management Strategy, and others. She has been named a Purdue University Faculty Scholar and a Krannert Faculty Fellow.

Professor Watts' teaching interests include financial and managerial accounting, and she has taught a Purdue Honors Program project course on corporate social responsibility and ethics. She also teaches and works closely with doctoral students on their research and is the area academic advisor for the doctoral program in Accounting. She was included in Purdue University's Book of Great Teachers in 2008 and was awarded the Purdue University Charles B. Murphy Teaching Award in 2004. She is a fellow of the Purdue University Teaching Academy and has participated both as a senior faculty member and a junior faculty award recipient in Purdue's Teaching for Tomorrow program. She has also received several School-wide teaching awards at Purdue. Before joining Purdue, she was a faculty member at Indiana University-Bloomington where she also received university, school and department teaching awards.



Presenter: **Dr. Tomás Díaz de la Rubia**, Chief Scientist & Exec. Dir.
Purdue Discovery Park
Title: **Smart Challenges**

Dr Tomas Diaz de la Rubia will present a vision for the future of manufacturing - integrating the internet of things, computing capabilities, augmented reality, 3D printing and more into a competitive global opportunity. His presentation will outline future challenges – megacities, surging population, education and healthcare needs as opportunities for manufacturing and technology to solve. His vision of a convergence between research and manufacturing will provide a thought provoking session encouraging attendees to ponder how they will seize this opportunity.

About the Speaker:

Tomás Díaz de la Rubia is Purdue University's chief scientist and executive director of Discovery Park. In this position, his responsibilities include building upon Discovery Park's foundation of excellence which has enabled high-impact research that crosses traditional academic boundaries. He works closely with the faculty and deans to help catalyze Purdue's many strengths and build on its legacy of interdisciplinary research with global impact and public-private partnerships.

Before coming to Purdue, Díaz de la Rubia served as innovation leader and a director in Deloitte's energy and resources industry practice in Washington, D.C., working with Fortune 500 energy and manufacturing companies to identify and capitalize on business opportunities arising from potentially disruptive, innovative new technologies.

Prior to joining Deloitte, Tomás was the chief research officer and deputy director for science and technology at the Lawrence Livermore National Laboratory (LLNL) in California, where he was responsible for the long-term health of the science and technology foundations of the laboratory's \$1.6 billion research program. From 2002-2009, he was an associate director at LLNL, leading its chemistry, materials science, life sciences, and energy and environmental sciences organizations, as well as its \$60 million basic materials science, chemistry and biology programs with the Department of Energy's Office of Science.

As a scientist and researcher, Díaz de la Rubia led LLNL's Computational Materials Science Group, investigating fundamental and applied materials science problems with an emphasis on multiscale phenomena and varying applications from radiation damage to semiconductor materials to materials in extreme environments. For his research, he partnered with the Department of Energy, Defense Advanced Research Projects Agency and other federal agencies as well as industry leaders Bell Labs, Intel, Applied Materials and others. Díaz de la Rubia has published more than 150 peer-reviewed articles and has co-edited several books and conference proceedings. He is a fellow of the American Physical Society and of the American Association for the Advancement of Science and served as an elected member of the board of directors of the Materials Research Society, and vice-chair of the division of computational physics of the American Physical Society. He holds a bachelor's degree (summa cum laude) and a doctorate in physics from The State University of New York, Albany.

**Session moderated by Dr. Tom Brush, Senior Associate Dean, Head
of the Department of Management**



**Dr. Tom Brush, Senior Associate Dean, Head of the Department of
Management, Professor of Management**

<http://www.krannert.purdue.edu/faculty/brusht/>

Thomas H. Brush (brusht@purdue.edu) is a Professor of Management in the Strategic Management Area at the Krannert School of Management, Purdue University. He is Senior Associate Dean, and Head of the Management Department. He received his Ph.D. in Economics and Business Administration at the University of Michigan where his doctoral dissertation received the 1991 Free Press Award for Outstanding Dissertation Research in Business Policy and Strategy. Before coming to Purdue University, Dr. Brush spent two years on the faculty at the University of Minnesota's Carlson School of Management and he spent a sabbatical year in 2001 as a Visiting Research Scholar at the Watson Research Center of the IBM Corporation.

His research focuses on corporate strategy and manufacturing strategy topics such as acquisitions, diversification, manufacturing capability exploitation within companies, supplier relationships and alliances. Connections between these streams include the disintermediation of existing business models with IT initiatives and the rise of new outsourcing opportunities in both primary activities and business processes. Some specific applications include HR outsourcing, knowledge management in outsourcing, e-commerce marketplaces, and the effect of customer capabilities on performance in online banking. Current research focuses on technology diffusion and the competitive choices of standards selection by incumbents and potential disruptors as well as corporate governance in acquisitions.

He has published in Management Science, Strategic Management Journal, Academy of Management Journal, Organization Science, Production and Operations Management, Journal of Operations Management, Journal of Economic Behavior and Organization, Managerial and Decision Economics and Explorations in Economic History.

He is an active member of the Academy of Management and the Strategic Management Society. He has done consulting and teaching for such firms as IBM, Dow Corning, Pioneer Hi-Bred, Navistar International, the American Animal Hospital Association and American Axle Manufacturing. He is also on the Board of Directors of Mackey Bancorp.

He enjoys sailing, tennis, gardening and playing with his six year old daughter.

At Purdue, he teaches the IT course in the MBA programs (in the regular, weekend, and Exec Ed MBA). He has also been a visiting faculty member at GISMA and ISB. Previously, he taught the undergraduate core course as well as a database course.



Presenter: **Eric Matteson**, Plant Leader, Lafayette Engine Facility,
GE Aviation
Title: **Brilliant Machines**

Headquartered in Memphis, TN FedEx Corporation provides customers and businesses worldwide with a broad portfolio of transportation, e-commerce and business services. With annual revenues of \$45 billion, the company offers integrated business applications through operating companies competing collectively and managed collaboratively, under the respected FedEx brand. Consistently ranked among the world's most admired and trusted employers, FedEx inspires its more than 300,000 team members to remain "absolutely, positively" focused on safety, the highest ethical and professional standards and the needs of their customers and communities. As the supply chain needs and requirements of customers have become more complex, the solutions FedEx provides have become more specialized and sophisticated. There are over 200 products and services in the FedEx portfolio. The combinations of possible solutions are endless. However, these solutions have little relevance unless they are targeted specifically to a customer's needs and are quantified to show the impact to their bottom line. FedEx Services has developed a simple yet effective formula to calculate the value of the solutions we design in terms of revenue, cost, and assets. We have built online application tools to standardize the calculations, show the results, and collect all the examples in a database easily accessible and replicable by our team members.

About the Speaker:

Eric was born in Buffalo, New York. He attended the Rochester Institute of Technology and graduated with a B.S. degree in Electrical Engineering in 1994. He started his career with GE in 1992 with GE Power Systems in Schenectady NY, and later joined GE Fanuc in 1994 as an application engineer in Albany NY. In 1996, Eric moved to GE Fanuc HQ in Charlottesville, VA where he held various roles including 3 years in a dedicated Six Sigma Black Belt role leading business critical projects.

In 2005, Eric accepted the role as Program Leader at GE Aviation in Durham NC. He led several jet engine assembly programs through periods of significant growth and expansion. Currently, Eric is leading the new GE Aviation Lafayette site start-up project, positioning this new facility to begin production operations in January of 2016.

Eric is married to Jacqueline, and has 3 children: Gabriel 20, Zachary 18, and Erica 17. He likes water sports, outdoor activities, and being creative with his hands. Most of all, he enjoys spending time with his family and friends.

Session moderated by Dr. Ananth Iyer, Susan Bulkeley Butler Chair in Operations Management, Professor of Mgmt.



Dr. Ananth Iyer, Susan Bulkeley Butler Chair in Operations Management, Professor of Mgmt.

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He was president-elect of the MSOM Society of INFORMS in 2001-02 and served as president for the year 2002-03. Prior to joining the Krannert faculty in 1996, Professor Iyer taught at the University of Chicago. He has been affiliated with the Production and Distribution Research Center at Georgia Tech, and a consultant to Daymon Associates, Sara Lee, Turner Broadcasting and others. He served his Chicago community as a pro bono consultant to the Chicago School System and the Chicago Streets and Sanitation Department. He blogs about Global Supply Chain Management at <http://aviyer2010.wordpress.com/author/aviyer2010/>



Presenter: **Stacey M. DelVecchio**, Additive Manufacturing Product Manager, Caterpillar Inc.
Title: **Smart 3D Printing**

Stacey DelVecchio will present how Caterpillar uses 3D printing to accelerate manufacturing.

About the Speaker:

As a manager for Caterpillar Inc., Stacey DelVecchio leads an engineering pipeline transformation project to ensure the best engineering talent is available to meet enterprise needs. She is also responsible for the engagement strategy with professional external organizations, as well as the science, technology, engineering, and math education (STEM) strategy.

In her more than 23 years with Caterpillar, DelVecchio has worked in process and product development for nonmetallic components, production support for paint and process fluids, and the build and start-up for a green-field facility in China. A certified Six Sigma Black Belt, she earned that classification by working on projects that included lean manufacturing, failure analysis, and employee engagement. Previously, DelVecchio was the hose and coupling engineering manager, as well as the new product introduction manager for Cat Fuel Systems. Most recently, she managed the project management office for Caterpillar engines with responsibility for the project management of all new product introduction programs, continuous improvement projects, and cost reduction project in the division.

A SWE life member of the Central Illinois Section, DelVecchio holds a B.S. in chemical engineering from the University of Cincinnati. Her previous SWE experience includes the Corporate Partnership Council, strategic planning committee, conference programming board, awards committee, and Society treasurer. She served as the SWE president from July 2012 to June 2013.

DelVecchio's volunteer efforts have earned her many local community and SWE awards. In her leisure time, she enjoys scrapbooking, reading, and visiting national parks. She lives in Peoria, Ill., with her husband, Kerry, and their cats, Abe and George.

Session moderated by Dr. Dan Hirleman, Chief Corporate and Global Partnerships Officer, Office of the Exec. Vice President for Research & Partnerships



Dr. Dan Hirleman, Chief Corporate and Global Partnerships Officer, Office of the Exec. Vice President for Research & Partnerships

E. Daniel Hirleman Jr. joined Purdue as Chief Corporate and Global Partnerships Officer in 2014 where he is responsible for substantially growing research and education partnerships with the private sector, and for strategic global partnerships with nations, institutions of higher education, NGOs and companies. He also oversees the Global Policy Research Institute as well as Purdue's International Programs operation that currently serves over 9,000 students and scholars. Hirleman studied mechanical engineering at Purdue University and received a BSME, graduating in 3 years with a 4.0 GPA, followed by MSME and Ph.D. He received Howard Hughes Doctoral and NSF Graduate Fellowships, did six industry internships, and was a visiting researcher at the Technical University of Denmark. He joined Arizona State University as faculty in Mechanical and Aerospace Engineering where he received teaching and research awards and held multiple administrative positions culminating in associate dean for research.

He then served as William E. and Florence E. Perry Head of Purdue ME, leading that School as it grew to over 500 graduate and 1300 undergrad students, developed BS/MS, BS/MBA and direct-to-Ph.D. programs, tripled sponsored research, and completed a \$142M Capital Campaign providing for scholarships, fellowships, endowed professorships, and two new ME buildings. He has received: the INEER International Achievement Award in 2006; the Hon. George Brown Award for International Scientific Cooperation in 2008, and the 2009 Charles Russ Richards Memorial Award of ASME/Pi Tau Sigma. He is a Fellow of ASME and chaired the Advisory Board of Engineers for a Sustainable World. Just prior to rejoining Purdue he served for four years as the second dean of the School of Engineering at the University of California, Merced.

Hirleman has about 200 technical publications, 6 U.S. patents, and has presented 80 invited lectures in 14 countries. His current research involves laser-based sensors used in detection and identification of cells and colonies for bio-hazard characterization, high-throughput screening, and stem cell diagnostics. His work in particle and flow diagnostics, semiconductor manufacturing, and global engineering is also recognized. Ten inventions/technologies developed in his lab have been licensed to the private sector and/or are in commercial products. His work has been supported by 70 grants from 31 companies and 10 government agencies (total funding of over \$21M).

He is married to Laura Kennedy Hirleman, M.C., who counsels in private practice and in their church. They have 3 children. He served on the Board of a Purdue Campus Ministry and was founding President of nonprofit Kairos Ministries, which provides worship services, counseling, and tutoring in Phoenix area jails. For stress relief he plays racquetball, and has won numerous university open (ASU, Purdue) and state age-division championships (AZ, CA, IN) as well as medaling twice in his division at the National Championships.



PURDUE
UNIVERSITY

Presenter: Roy Vasher, Assistant Professor of Management,
Purdue University
Title: Smart Robotics

Roy Vasher's talk will discuss innovative approaches to use robots for kitting parts for automobile assembly -enabling custom kits to synchronize with line sequences. Such innovative robot assistance can enable increased personalization of manufactured product without increasing costs. Incorporating robots effectively and economically is one of the key challenges in Managing Smart Manufacturing.

About the Speaker:

Roy Vasher began his career at Ford Motor Company in Dearborn, MI. He served as Information Systems Manager in Ford Division and Finance Staff.

During his 19+ years at Toyota, Roy developed deep insight and experience on how to integrate Information Technology to support lean processes by serving as General Manager, Information Systems. Roy led a cross-functional team to streamline and integrate Toyota's vehicle supply chain to reduce Order-to-Delivery lead-time and optimize vehicle inventory – leading the industry in these innovations.

Roy is currently Assistant Professor of Management at Purdue University. Roy is also a Lean Consultant and President of RPV Consulting, LLC. He co-authored *Toyota's Supply Chain Management: A Strategic Approach to Toyota's Renowned System*.

Session moderated by Dr. Gemma Berenguer, Assistant Professor of Mgmt.



Dr. Gemma Berenguer, Assistant Professor of Management

<http://web.ics.purdue.edu/~gberengu/>

Professor Berenguer is joined Krannert School of Management as an assistant professor in June 2012. She received her Ph.D. Degree from the University of California at Berkeley before joining Purdue. She also holds an undergraduate degree in Mathematics from the Universitat Politècnica de Catalunya, an MS in Economics from the Barcelona Graduate School in Economics, and a MEng in Logistics and Supply Chain Management from the Zaragoza Logistics Center.

Her research interests include integrated supply chain design problems, nonprofit supply chain management, and environmentally responsible operations and policies. She has experience collaborating with nonprofit organizations in the solar cooking industry and she is currently involved in a project that studies productivity improvement for health provider organizations in sub-Saharan Africa.

Professor Berenguer teaches operations management and sustainable and socially responsible operations in the undergraduate and MBA programs. She is a member of INFORMS, POMS and MSOM.



Presenter: Alexander Nazarov, Chief Engineer - COE, Cummins Inc.
Title: Customer Expectations and How a Corporate Ecosystem Could Help

The Cummins products are becoming more complex every year and customer expectations are evolving. Why is an ecosystem the answer? Alexander Nazarov, Chief Engineer at Cummins Inc. will discuss this issue.

About the Speaker:

Alexander Nazarov is a Product Chief Engineer at Cummins Distribution Business Unit. After the acquisition of North America Distribution Network, he became a part of the leadership team and has played a major role in the development of a central ecosystem. The ecosystem will link together systems, processes, between various functions within a single distributor, and complete North America distribution network. The focus has been to provide enough information about the product to ultimately enable global legendary customer support.

Alexander has more than 10 years of business-building experience. He led in the hiring and coaching of a successful, self-motivated team and developed system processes to support engineering, manufacturing quality, sourcing and service. He has lived and worked in United States, Russia, and Singapore. Alexander's leadership experience has grown because of the diverse opportunities in Russia and Singapore, the technical general management role, and a strong upper management team. He credits his divergent exposure within the business as one of the keys to success in forming strategic partnerships with cross-functional leaders.

Alexander holds a Master Degree in Electrical Engineering from Purdue University. He also graduated from the Leadership Skills Program and Management Accounting Program at Singapore Institute of Management.

Session moderated by Dr. John W. Sutherland, Professor and Fehsenfeld Family Head,
Department of Environmental and Ecological Engineering



**Dr. John W. Sutherland, Professor and Fehsenfeld Family Head,
Department of Environmental and Ecological Engineering**

<http://web.ics.purdue.edu/~jwsuther/>

Dr. John W. Sutherland is a Professor and the Fehsenfeld Family Head of Environmental and Ecological Engineering at Purdue University. He received his B.S. and M.S. degrees in Industrial Engineering, and his Ph.D. in Mechanical Engineering from the University of Illinois at Urbana-Champaign (UIUC). Dr. Sutherland was one of the first researchers in the U.S. to pursue environmentally responsible manufacturing. He has investigated such issues as dry or near-dry machining, mechanisms for airborne particulate formation in cutting operations, development of environmental profiles for manufacturing processes, logistics for bio-fuel production, and strategies for closing material loops in product life cycles, including recycling and remanufacturing. His research has been supported by the NSF, EPA, DOE, and such companies as Ford, GM, Caterpillar, General Dynamics, and Boston Scientific.

Dr. Sutherland has mentored over 80 students to the completion of their graduate degrees, including 22 PhD students. He has published over 300 papers in various journals and conference proceedings. Dr. Sutherland is also a co-author of the textbook, *Statistical Quality Design and Control: Contemporary Concepts and Methods*. He is a Fellow of the Society of Manufacturing Engineers (SME), the American Society of Mechanical Engineers (ASME), and the International Academy for Production Engineering (CIRP). His recognitions include the SME Outstanding Young Manufacturing Engineer Award (1992), Presidential Early Career Award for Scientists and Engineers (1996), Society of Automotive Engineers (SAE) Ralph R. Teetor Educational Award (1999), SME Education Award (2009), Outstanding Lifetime Service Award from the North American Manufacturing Research Institution of SME (2010), the SAE International John Connor Environmental Award (2010), and the ASME William T. Ennor Manufacturing Technology Award (2013).



Presenter: Bob Nida, VP- Organizational Development,
Wabash National
Title: Smart People

The complexity and multiple moving parts of modern Supply Chains supporting typical manufacturing environments - with all the associated sources of variation and worldwide supplier sourcing strategies - make modeling and forecasting logistics costs and cash flows extremely complicated. A supply chain supporting multiple product lines, non-standard configurations of product offerings, and varying manufacturing production rates within the same environment can make the challenge seem even more overwhelming. However, business planning functions require that the cash flows be reasonably understood and predicted in order to meet overall business commitments. Gary will discuss a process utilized and challenges encountered to find relevant correlations to develop a simplified cost model for freight cost forecasting for a complex supply chain environment.

About the Speaker:

Mr. Robert L. Nida, also known as Bob has been Vice President of Organizational Development at Wabash National Corp. since February 27, 2014. Mr. Nida has been Vice President of Business Development at Wabash National, Inc since February 2008. He served as vice president and general manager, retail at Wabash National since 2008. He is employed at Wabash National Trailer Centers He served as corporate senior vice president at Accuride Corporation in Evansville, Ind. He was Senior Vice President of Accuride Wheels, Gunite & Brillion Iron Works at Accuride Corp. since August 10, 2005. He served as Senior Vice President Gunite & Brillion Iron Works at Accuride Corp. from December 2006 to December 2007. He served as Vice President- Technology at Accuride Corp. since July 2002. He has a Black Belt in Six Sigma, holds certifications as a Quality Systems Auditor for QS9000 and TS16949. He is in the final dissertation stage of his Ph.D. in Organizational Leadership at Regent University's School of Global Leadership & Entrepreneurship. Mr. Nida holds a B.A. in Sociology from Bridgewater College and a Masters in Total Quality Management from Friends University.

Session moderated by Dr. Ellen Kossek, Basil S. Turner Prof. of Mgmt.



**Dr. Ellen Kossek, Basil S. Turner Professor of Management & Research
Director Susan Bulkeley Butler Center for Leadership**

<https://intra.krannert.purdue.edu/faculty/ekossek/Pages/Home.aspx>

Ellen Ernst Kossek is the Basil S. Turner Professor of Management and the Inaugural Director of the Susan Bulkeley Butler Center for Leadership Excellence at the Purdue University's Krannert School of Management. Dr. Kossek teaches graduate students and managers on organizational behavior and human resource challenges. In 2014, she received the Work Life Legacy award from the Families and Work Institute for helping to advance or build the work life field and was elected President of the Work-Family Researchers Network. She was elected to the Board of Governors of the National Academy of Management, Gender and Diversity in Organizations Division Chair, and a Fellow of the American Psychological Association and the Society of Industrial and Organizational Psychology. Her research involves leadership development and talent management of gender, multiculturalism and diversity, managing and evaluating organizational change on such topics as workplace flexibility, workplace inclusion and leader social support, stress and work-life, telework, occupational resilience, and managing human capital globally. She has published widely in referred journals on these topics, and won many awards including the Academy of Management Division's Gender and Diversity in Organization's Sage Scholarly Achievement award recognizing an accumulated body of research that significantly advances understanding of gender and diversity in organizations. Her teaching of Talent Management of Gender and Diversity has received high student ratings for being a Master teacher.

Dr. Kossek is also Associate Director of the Center for Work, Family Health and Stress of the U.S. National Institutes of Health National Work, Family and Health Network. She has received funding from Alfred P. Sloan and Gerber Foundations, U.S. Center for Disease Control and National Institutes of Health, the U.S. Department of Defense, the SHRM Foundation, state, national and international governments, and employers.

Dr. Kossek currently serves on many journal editorial boards, and advisory boards in the U.S. and internationally. Her best-selling book on flexstyles and work-life patterns) is CEO of Me: Creating a Life That Works in the Flexible Job Age (with Lautsch, 2008, Wharton School Publishing). She has edited or authored 8 other books on diversity, work-life and human resource management and published dozens of articles in leading journals or books. She has given dozens of keynote speeches on work-life, gender and multi-culturalism; human resource strategies and organizational change and partners on research, management education and organizational change work with employers (public, private and nonprofit) in the Asia, Europe, and Americas. She has developed an original validated assessment and workshop to increase work-life wellbeing and boundary management effectiveness and a work-for individuals, leaders and teams in the age of 24-7 connectivity.

Her educational degrees are from Yale University (PhD); University of Michigan (MBA); Mount Holyoke College (psychology with honors). She has been a visiting scholar at the Kings College, London, the University of Michigan, the Center for Creative Leadership, the University of Warwick, UK, University of South Australia in Adelaide; and Harvard Business School. She is married with four children.



Meet Our Graduate Assistants



Gisela Condado

MBA 2016 | President, Krannert Operations Club | Graduate Assistant, DCMME & GSCMI

Gisela Condado is a second year MBA student at Purdue University's Krannert School of Management with concentrations in operations and supply chain management. Originally from Venezuela, Gisela graduated as Summa Cum Laude Production Engineer and later worked for 3 years in the supply chain department of multinational companies such as Cargill and Novartis. Most recently as demand planner at Novartis, Gisela represented the supply chain single point of contact of 12 international plants located in North America, South America and Europe, as well as participated in cross-functional teams in domains such as strategic purchasing, sales & operations planning (S&OP), global launching and inventory management. During the summer, Gisela worked as an Operation Manager Pathways Intern at Amazon, where she had the opportunity to manage the initial stages of a new self-service tool that will support customers solve their problems in a targeted and fast way, while reducing operational costs for Amazon. This position gave her the opportunity to successfully coordinate 10 cross functional teams at Amazon and find a professional fit in the peculiar working hard and having fun culture of the company.



Matt Jung

MBA 2017

Matt Jung is a first year MBA student at Purdue University's Krannert School of Management with concentrations in finance and strategic management. Originally from Hawaii, Matt earned a degree in biology with a minor in biochemistry from Brigham Young University Hawaii. Upon graduation he worked for a private government contracting firm in Honolulu. Prior to coming to Purdue, he worked for 3 years building and overseeing the supply chain department of Pelatron, Inc. As supply chain manager his responsibilities included staffing, training, and streamlining company process to effectively manage all asset and project based material. These initiatives provided Matt with experience in team building, process implementation, and inventory management enhancing his leadership and problem solving capabilities



Akshit Bajpai

MBA 2016 | VP of Technology and Administration- Krannert Graduate Students Association | VP of Case Competition- Krannert Operations Club

Akshit is a first year MBA student at Purdue University's Krannert School of Management with concentration in Operations and Finance. He is from India, where he graduated as Mechanical Engineer from University of Pune and worked for 5 years in Supply Chain Management for Honeywell Turbo Technologies. Akshit handled various roles in Supply Chain in Honeywell and most recently handled dual responsibilities of customer planner and Demand and Production Planner, where he was responsible for customer demand management of selected customers and also participated in global processes for total sales planning, production and Inventory planning for his plant. Within Krannert, Akshit is Vice President of Technology for Krannert Graduate Students Association and Vice President for Case Competitions for Krannert Operations Club. During the summer Akshit was interning with Techshot Lighting in Greenville, Indiana. There he worked on preparing an export plan and work on financial projections and operations setup for local orders for Techshot Lighting. Akshit utilized his knowledge of operations, finance and strategy to achieve his internship goals.



Joey Meisberger

MBA 2016 | Krannert Graduate Program Student Mentor | Krannert Fitness Club Member | Krannert Operations Club Member

Joey Meisberger is a second year MBA student at Purdue University's Krannert School of Management with concentrations in Operations and Supply Chain Management. Originally from Indianapolis, IN, Joey completed his undergraduate degree at Purdue University, where he earned a Bachelor of Science in Mechanical Engineering Technology. Prior to coming back to Purdue, he worked for 1 year as a contract Mechanical Design Engineer for Sikorsky Aircraft and almost 4 years as a Mechanical Design Engineer for Juno Lighting Group. In his time as a contractor for Sikorsky he researched and designed engineering changes for their commercial and military helicopters, primarily dealing with their Blackhawk platform. In his time at Juno Lighting Group he designed over 25 new product commercial LED lighting fixtures and spearheaded 7 major new product launches as the lead engineer. During the summer Joey did his internship at Emerson Climate Technologies in Sidney, OH, where he was an Air Conditioning Sales and Marketing Intern. He created an OEM Account Readiness Tool for the Department of Energy's new commercial regulatory changes. He also justified multiple new product compressor business cases and optimized a compressor Kanban and inventory stocking plan for FY 2016. He not only utilized his engineering background and operations and supply chain knowledge in his time at Emerson, but he also developed strong sales and marketing skills while contributing to one of the leaders in the HVAC industry.



Pablo Martinez

MBA 2016 | VP of Communications – Krannert Graduate Students Association | VP of Communications Krannert Chinese Business Association | President of Krannert Toastmasters Club | Treasurer – Krannert Energy Club

Pablo comes from Venezuela with a bachelor diploma in Electrical Engineering, and 3 years work experience in B2C and B2B transactions. After that, he worked for the Generation Dept. at the largest electric service supply in Venezuela before moving into the service industry. He later found his passion in customer service and operations when he joined Eurobuilding International Hotel enterprise. A year later, he was granted the opportunity to join Krannert School of Management where he now focuses on service operations and supply chain. Over the summer, Pablo was running the Miranda Restaurant's Administration and Training at EB Hotel Miami, located at the vicinity of Miami International Airport. He successfully developed the training guidelines for his position and helped the corporate executives to launch what is going to be the new face of such business.



Taylor Haws

MBA 2017

Taylor Haws is a first year MBA student at Purdue University's Krannert School of Management with concentrations in operations and supply chain. Taylor is originally from Arizona and earned his bachelor's degree in Spanish Linguistics from Arizona State University. After graduating from ASU, Taylor worked for two years at State Farm Insurance before coming to Purdue University. Taylor's most recent role at State Farm was as a Spanish Team Lead in the Express Claims Department. In this role, he directly supported a team of 10-12 Spanish Express associates, as well as 588 other Express associates in nine different locations. Taylor's main duties were to assist in solving complex claim issues as well as provide coaching for associate development. Additionally, Taylor worked directly with the Estimates, Business Process, and Underwriting departments to streamline the duties of the Express claims associates throughout the entire claims system. His position at State Farm provided great leadership, analytical problem solving, and diverse cultural communication experience.

Save the Date

JANUARY 29, 2016

GSCMI Spring Conference & Intercollege Case Competition

***“TRANS-PACIFIC PARTNERSHIP (TPP) AND THE GLOBAL
SUPPLY CHAIN IMPACT”***