

2019 Nov. 7 & 8

# Operations 2030:

The next evolution of technology, sustainability, supply chain, and customer behavior





### **WELCOME**

Welcome to the 13th annual Global Operations Conference (GOC) at the University of Michigan. The Global Operations Conference brings together industry and academia leaders to share best practices, debate current issues, and advance the worldwide practice of operations.

The world of operations is constantly evolving and to remain competitive in this space, businesses must be proactive, innovate, and invest in technologies that will keep them at the forefront of their industry. These changes are driven by megatrends in the global economy, consumer preferences, and technological advances.

This year's conference, "OPERATIONS 2030", aims to take a closer look at the specifics of these megatrends and how they will shape the operational field by hearing how leaders in a wide variety of industries are preparing for changes in the coming decade.

The entire GOC committee would like to thank you all for joining us at this incredible two day event. We sincerely hope you enjoy your experience at this year's Global Operations Conference.

Best Regards.

Nirav Suraiya GOC Co-Chair

MBA '20

Christian Wire GOC Co-Chair

EGL BSE-CHEM/MSE-IOE '20

# **SCHEDULE**

All events take place at the Ross School of Business.

# Thursday, November 7th

10:00 am - 4:00 pm	Case Competition Finals	Various Rooms
2:00 pm - 5:00 pm	Coffee Chats	various riodilis
6:30 pm - 7:00 pm	Welcome Reception	
7:00 pm - 7:15 pm	Opening Remarks by Joel Tauber and Roman Kapuscinski, John Psarouthakis Research Professor of Manufacturing Management and Chair of Technology and Operations	Tauber Colloquium
7:15 pm	Dinner	
7:30 pm - 7:45 pm	Case Competition Winner Announcement	
8:15 pm - 9:00 pm	Keynote Address: <i>Digital Transformation</i> Bob Karschnia, Vice President/General Manager of Wireless Emerson	
8:45 pm - 9:00 pm	Close	

# Friday, November 8th

8:00 am - 8:45 am	Networking Breakfast	Tauber Colloquium
8:45 am - 8:55 am	Introductory Remarks	
8:45 am - 9:30 am	Keynote Address: <i>Leading the 99% via an Industry 4.0 Revolution</i> Andy Storm, President & CEO, Eckhart, Inc.	
9:40 am - 10:25 am	Panel 1: Technology Trends - Industry 4.0 in the Coming Decade	
10:30 am - 11:15 am	Panel 2: Sustainability Through Innovative Operations	
11:20 am - 12:05 pm	Panel 3: Global Factors Influencing Supply Chains of the Future	
12:30 pm - 1:15 pm	Lunch & Keynote Address: <i>Timeless Leadership - Passion</i> , Kim Westenskow, Vice President, Fabrication for Defense, Space & Security (BDS)	
1:15 pm - 1:30 pm	Closing Remarks	
2:00 pm - 3:30 pm	Alumni Happy Hour	Pizza House

# **KEYNOTES**



#### Bob Karschnia, Emerson

#### **Thursday Evening**



Bob Karschnia is vice president and general manager of the Emerson Automation Solutions pervasive sensing business. With more than 27 years of experience in the process control industry, he manages Emerson's measurement and analytical pervasive sensing product offering and coordinates the Industrial Internet of Things initiatives across the company. He has been a speaker at many events around the world and is a thought leader in the industry on gaining business value through the use of new technology. Prior to his current

role, Mr. Karschnia held various design engineering and management positions throughout Emerson.

Before joining Emerson, Bob developed rotating equipment control systems at Compressor Controls Corporation and satellite control systems for Lockheed Martin. He also served as an officer in the United States Air Force working on satellite control and communications systems.

Mr. Karschnia has a Bachelor of Science degree in Aerospace Engineering from the University of Minnesota and a Master of Science degree in Electrical Engineering from the University of Colorado.

#### Andy Storm, Eckhart, Inc.

#### **Friday Morning**



Andy Storm is the President & CEO of Eckhart, Inc., a Michigan based Industry 4.0 advanced manufacturing solutions provider. Andy earned Bachelor of Science degrees in Business Administration (Industrial Management) and Mechanical Engineering Technology from Michigan Technological University and was an All-Conference defensive tackle on the MTU football team. As a Leaders for Manufacturing Fellow at the Massachusetts Institute of Technology, Andy earned an MBA from MIT's Sloan School of

Management and a Master of Science degree in Engineering Systems from the MIT School of Engineering.

Andy began his professional career as a 3rd shift maintenance supervisor working in the Metal Fabricating Division of General Motors. In 2008 Andy began working at American Axle & Manufacturing (AAM) where he became Manager of Global Procurement & Supply Chain Management. Andy then transitioned to Pratt & Whitney, a division of United Technology Corporation that specializes in jet engine propulsion and was Operations Manager of their Ground Test, Thrust-Reverser, Maintenance Repair & Overhaul, and Original Equipment Manufacturing business units in Lansing, MI. Since then, Andy has held executive positions with Oshkosh Corporation as Director of Engineering at Oshkosh Defense, General Manager of Front Discharge Concrete Mixers at Oshkosh Commercial and most recently General Manager of Global Automotive, Aerospace, & Defense at Stratasys.

In Andy's current role at Eckhart he is responsible for accelerating the development and adoption of Eckhart's Industry 4.0 advanced manufacturing solutions that include AUTOCRAFT™ autonomous guided vehicles, FLEXCHECK™ collaborative robots, additive manufacturing, micro sensor/spatial positioning systems, and ergonomic lift-assist & secure tools. Eckhart customers include Boeing, Schneider Electric, Raytheon Missile Systems, CAT, Harley-Davidson, Procter & Gamble, Honeywell, Cargill, Frito-Lay, Stryker Medical, and Tesla.

In addition to serving on the Board of Directors of Eckhart Holdings Company, Andy serves as Chairman of the Capital Area Manufacturing Council, the Lansing Community College Center for Manufacturing Excellence Advisory Board, the MIT Leaders for Global Operations Alumni Council, and is an active member of the Detroit Economic Club and the Detroit Regional Chamber of Commerce.

#### Kim Westenskow, The Boeing Company Friday Afternoon



Kim Westenskow is vice president of Fabrication for Defense, Space & Security (BDS). She is responsible for an integrated Fabrication strategy across BDS, including leading the group's 1,500 employees and four Centers of Excellence, where critical parts are made for Boeing's defense, space and commercial products. She also leads the Production Controls/Materials Management and Property Management groups, as well as the BDS boards focused on asset utilization and make/buy decisions.

From January 2015 to August 2018, Westenskow was managing director for Boeing Canada Operations Ltd. and general manager for Boeing Canada Winnipeg, Manitoba. As managing director, Westenskow led the development and implementation of the Boeing Canada enterprise strategy. She also served as the company's senior corporate representative and chaired the Boeing Canada Holdings Board. She was responsible for leading Canada's largest aerospace composite manufacturer – the country's third largest aerospace facility.

Prior to her assignment in Winnipeg, Westenskow served as director of SQ Airplane Program Support and Operations.

Westenskow started her career with The Boeing Company in 1989, working as an Industrial Engineer Methods Analyst. She also led teams in Operations, Quality and Engineering.

A graduate of Montana State University, Westenskow holds a Bachelor of Science. She is also a graduate of W.P. Carey Arizona State University receiving a Masters of Business Administration.

Westenskow is married and has two daughters studying at Washington State University.



#### Friday, 9:40 am - 10:25 am

#### **Technology Trends - Industry 4.0 in the Coming Decade**

Technology is today's hot topic in operations, but it can be difficult to distinguish what presents real opportunity from what is mostly hype. This panel will highlight some of today's cutting-edge technologies, their current applications, and how they may evolve over the coming decade.

Topics include: Big Data, IoT, Al/Machine Learning, Autonomous Vehicles, Blockchain, Cloud Computing and associated security issues.

#### **PANEL MEMBERS:**



Rebecca Rutishauser Director of Global Additive Manufacturing (Emerson)



**David Salazar Yanez** Founder & CEO (Andonix)



Prince Idichandy Senior Manager (Deloitte)



Julia Vagdati
Director of Product
Marketing for SCM Cloud
(Oracle)



Manish Vijay Senior Manager of Supply Chain Execution (Amazon)





Nigel Melville Associate Professor of Technology and Operations, Ross School of Business

# PANEL 2

#### Friday, 10:30 am - 11:15 am

#### **Sustainability Through Innovative Operations**

Sustainability is a growing focus for many companies today. Increasingly, companies are utilizing new technologies and creative solutions to reduce their negative impact on the world around them and build a more sustainable business. The panel will explore how trends in sustainability will evolve over the coming decade.

Possible topics include: Clean Energy, Lifecycle Design, Electric Transportation, Plastic Bans and Alternative Materials, Accounting for Scope 3 Impacts.

#### **PANEL MEMBERS:**



Mike Mikula Chief Engineer, Advanced Manufacturing (Ford)



Ed Carr General Manager (Boeing)



Eduardo Alvarez Chief Operating Officer (Amyris)



Wendy Phippen
Director Environmental
Compliance and
Sustainability
(Microsoft)

#### **MODERATOR:**



Steve Skerlos
Arthur F. Thurnau Professor
of Mechanical Engineering
and Civil and Environmental
Engineering, College of
Engineering



#### Friday, 11:20 am - 12:05 pm

#### **Global Factors Influencing Supply Chains of the Future**

Supply chains are becoming increasing global and complex, how are these trends impacting the way companies think about supply chain management? This panel explores how the changing global landscape impacts organizations' supply chain decisions.

Topics include: International Trade & Risk management, Supply Chain Globalization, Outsourcing, Vertical Integration, Supply Chain Visibility

#### **PANEL MEMBERS:**



Fred Perreand VP of Global Supply Chain Operations (Emerson)



Andrew Burgess
Senior Program
Manager, Enterprise
Supplier Development
& Diversity
(Boeing)



Evan Quasney Senior Director (Anaplan)



Amit Nagar Principal (Operations) (Bain)

#### **MODERATOR:**



Kyle Handley Alexander M. Nick Professor, Associate Professor of Business Economics and Public Policy, Ross School of Business

# CASE COMPETITION Meet the Judges



## Ryan Kim, A.T.Kearney

Ryan Kim is an associate with A.T. Kearney's ATI practice. Based in Washington, D.C., Ryan serves clients in the automotive, aerospace, defence and manufacturing industries. His engagement includes operational due diligence, digital transformation and cost modelling. Before joining A.T. Kearney, Ryan worked at Boeing as an engineer

on the C-17, 787 and various other integration teams. He was also a program manager at Amazon within the operations research organization.

Ryan earned a bachelor's and master's degree in engineering from the University of Illinois and an MBA from the Ross School of Business at the University of Michigan.



#### Andrew Burgess, The Boeing Company

Andrew is currently the Senior Program Manager for Boeing Supplier Development and Diversity. His previous roles include BCA Supply Chain Operations, Supplier Performance, Business Intelligence and Analytics, 737 Quality Engineering, 787 Manufacturing Engineering, and manufacturing within the BCA Fabrication division.

Prior to Boeing, Andrew completed an MBA and a Masters of Engineering from the University of Michigan. Originally from New Zealand, Andrew obtained degrees in Mechanical Engineering and Operations Management before moving to Chicago for a manufacturing engineering position. Andrew is an outdoor enthusiast with a passion for mountain biking, hiking and snowboarding. He also likes to travel and has visited every continent except Antarctica. Though these days he spends most of his free time with his wife and two daughters.

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# CASE COMPETITION Meet the Judges (continued)



#### Ankur Agarwal, Amazon

Ankur Agarwal is a Principal Product Manager in Amazon's Supply Chain Optimization Technology team. Leveraging 15 years of global supply chain experience, he owns efforts to create and improve systems that control Amazon's global automated supply chain. Prior to his current role, Ankur graduated Amazon's Pathways Operations Leadership

Development program, where he held front line operations roles throughout Amazon (including rotations through Last Mile, Customer Service, and Amazon Robotics Fulfillment) here he built and led high performing operations teams spanning 50 to 750 FTE's.

Prior to his five year career with Amazon, Ankur had a successful ten year procurement career in global roles for Procter & Gamble and Toyota. Ankur has a Bachelor's degree in Economics from Cornell University, and a Masters in Supply Chain Management from the University of Michigan. He and his wife love to travel, and are new parents to a not quite two year old little girl, Eva.



#### Ryan Hicks, Llamsoft, Inc.

Ryan Hicks is the Director of Learning Experience, a customer success organization at LLamasoft, Inc. His 8 years of experience in Operations Research has been concentrated in Supply Chain Design and Enterprise Learning Models. Learning Experience is a cross-functional team of designers, technologists, and engineers responsible for the design and

development of learning programs, products, and services for the LLamasoft community. Innovation in Learning and Development has provided Ryan a platform to share his experiences as a public speaker at conferences and Universities in the US. Prior to leading the Learning Experience team he was a Supply Chain Design Consultant delivering analytic solutions to Fortune 100 organizations.

Mr. Hicks holds a Bachelor of Science in Industrial Engineering from the University of South Florida. Ryan's previous experience of managing, touring and performing with music acts combined with his Operations Research background allow for a melding of art and science that is rooted in innovation and community.

#### **2019 PLANNING COMMITTEE**



**Nirav Suraiya** GOC Conference Co-Chair (MBA)



Christian Wire GOC Conference Co-Chair (EGL BSE-CHEM/MSE-Industrial & Operations Engineering)



**Aditya Mairal-Ashutosh** Sponsorship Co-Chair (MSE-Mechanical Engineering)



**Sarah Ting** Sponsorship Co-Chair (MBA)



**David Ginsberg** Corporate Recruiting and Alumni Relations Co-Chair (MBA)



Laura Malecky
Corporate Recruiting and
Alumni Relations Co-Chair
(MBA)



Jack Claucherty
Case Competition Co-Chair
(EGL BSE/MSE Industrial &
Operations Engineering)



Shabir Grover
Case Competition Co-Chair
(Dual MM and MSE-Mechanical
Engineering)



**Charlie Manzoni** Speakers & Panelists Co-Chair *(MBA)* 



**Rhea Kumar** Speakers & Panelists Co-Chair (MBA)



Andres Fuentes-Afflick Logistics & Internal Planning Chair (MBA)



**Jake Siddall** Finance Chair (MBA)



**Ryan Manes** Technology Chair (MBA)



**Alexander Mize** Marketing Chair (MSE-IOE)



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